Information Session

Full Board

Academic, Research, and Student Affairs Committee
Buildings and Grounds Committee
Compliance, Audit, and Risk Committee
Finance and Resource Management Committee
Governance and Administration Committee
Virginia Tech Board of Visitors Meeting

Information Session

Sunday, November 5, 2017
12:30 – 2:15 p.m.

Torgersen Hall Board Room (2100)
Virginia Tech Campus

12:30 – 1:15 p.m.  Annual Progress Report on University Strategic Plan
  • Dr. Timothy D. Sands, President
  • Mr. M. Dwight Shelton, Jr., Vice President for Finance and Chief Financial Officer
  • Dr. Ken Smith, Vice Provost for Resource Management and Institutional Effectiveness

1:30 – 2:15 p.m.  Virginia Tech Carilion School of Medicine: Structured for Success
  • Dr. Cynda A. Johnson, President and Founding Dean, VTCSOM
Annual Progress Report: Plan for a New Horizon 2012-2018

Board of Visitors Meeting
November 5, 2017
Overview of Indicators Supporting Scholarship Domains
Scorecard Indicators Key

- **Performance is improving annually**
- **Performance is level or mixed**
- **There is a moderate or periodic decrease in performance where ongoing improvement was expected**
- **Performance is below the expected target**
Learning
The Number of Graduating Undergraduates Who Participated in Research Experiences

![Graph showing the number of graduating undergraduates who participated in research experiences from 2009-10 to 2017-18. The graph includes actual performance and performance goal lines. Actual performance shows a general increase over the years, while the performance goal line is slightly above the actual performance line.]
Total Degrees Awarded by Level
Underrepresented Students Entering the Freshman Class and Degrees Awarded

Underrepresented minority students include those who self-identify as one of the following federal race or ethnicity designations: Hispanics of any race, Black or African American, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and all combinations of two or more races except White + Asian. Nonresident alien students are not counted as underrepresented minority students.
STEM-H Degrees Awarded
(based on SCHEV definition of STEM-H)

![Graph showing the number of STEM-H degrees awarded from 2012-13 to 2017-18.
- In-State UG Goal (IPS Target)
- All STEM-H Degrees Actual
- In-State UG Actual]

- 2012-13: 3,965
- 2013-14: 4,147
- 2014-15: 4,257
- 2015-16: 4,285
- 2016-17: 4,519
- 2017-18: (data not shown)
Student Credit Hours Taught in Special Sessions
Discovery
Total Research Expenditures Reported to the National Science Foundation (NSF)
Comparison of Total and Extramurally Funded National Science Foundation (NSF) Research Expenditures
Percentile of Faculty Publications, Citations and Awards
(Per Academic Analytics, LLC)

- Published Books per Faculty: 16%, 14%, 17%, 18%, 14%
- Citations per Faculty: 19%, 19%, 22%, 18%, 14%
- Awards per Faculty: 66%, 54%, 53%, 50%, 49%
- Published Articles per Faculty: 28%, 42%, 50%, 51%, 53%
- Conference Proceedings per Faculty: 95%, 93%, 96%, 93%, 95%

Calendar Year: 2012 to 2022
Engagement
Industry Funded Research Expenditures Reported to the National Science Foundation

![Graph showing industry-funded research expenditures from 2009-10 to 2017-18. The graph indicates a steady increase in expenditures, with actual performance and performance goals. The expenditures range from $21,256 in 2009-10 to $45,500 in 2017-18.](image-url)
Number of Graduating Undergraduates who Have Participated in a Study Abroad Experience or Foreign Language Course

![Graph showing the number of graduating undergraduates who have participated in a study abroad experience or foreign language course from 2009-10 to 2017-18 fiscal years. The graph includes lines for Foreign Language Actual, Either Actual, Study Abroad Actual, and Either Goal.](Image)
Undergraduate Participation in Service Learning and Experiential Programs

![Graph showing participation in service learning and experiential programs over fiscal years from 2009-10 to 2017-18. The graph includes actual and goal numbers for both service learning and experiential programs.](image-url)
Indicators Supporting Foundation Strategies:

• Organizational Development
• Campus Infrastructure
• Resource Development
Scorecard Indicators Key

- Performance is improving annually
- Performance is level or mixed
- There is a moderate or periodic decrease in performance where ongoing improvement was expected
Indicators for Organizational Development

- Expenditures with SWaM suppliers as measured by percentage of annual goal achieved
- Management’s Timely Response to Internal Audit Comments
  - Workforce Composition of Faculty: Snapshot of census data as of September 30
  - Workforce Composition of All Employees: Snapshot of census data as of September 30
Expenditures with SWAM Suppliers
as measured by Percentage of Annual VT Target
Management’s Timely Response to Internal Audit Comments

- FY2013: 98.0%
- FY2014: 100.0%
- FY2015: 98%
- FY2016: 98%
- FY2017: 100%

Target: 95%
Percentage of Underrepresented Tenured & Tenure-Track Faculty

PERCENTAGE OF UNDERREPRESENTED FULL-TIME FACULTY
SNAPSHOT DATA AS OF SEPTEMBER 30
UNDERREPRESENTED NUMBERS DO NOT INCLUDE THOSE SELF-IDENTIFYING AS ASIAN
Percentage of minority full-time employees (snapshot as of September 30; tenured & tenure-track, non-tenure-track instructional, and research faculty are included in "All Other Faculty"; faculty and staff numbers include those self-identifying as Asian.)
Indicators for Efficiency, Cost Containment, & Infrastructure

- E-Commerce Transactions
- Dollar Volume of Rebates earned through the Virtual Card
- Administrative Cost Efficiency
Dollar Volume of Rebates

- FY2012: $313,738
- FY2013: $444,832
- FY2014: $471,687
- FY2015: $590,759
- FY2016: $510,188
- FY2017: $857,888

Target:
- FY2012: $0
- FY2013: $100,000
- FY2014: $200,000
- FY2015: $300,000
- FY2016: $400,000
- FY2017: $450,000

Legend:
- Orange line: Dollar volume of rebates earned through Virtual Card
- Dashed line: Target

Virginia Tech
Administrative Cost Efficiency as compared to Peer Institutions

Data collected from the Integrated Postsecondary Education Data System (IPEDS)
Indicators for Resource Development

- Progress of Faculty Salaries
- Undergraduate Financial Aid Resources
- Maintenance Reserve Support
- University Debt Ratio
- Central Funding of Research Computing
Progress of faculty salaries towards 60th percentile of SCHEV peers
Increase in Undergraduate Financial Aid Resources
(Dollar in Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual (in Millions)</th>
<th>Target (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2011</td>
<td>$1.3</td>
<td></td>
</tr>
<tr>
<td>FY2012</td>
<td>$2.3</td>
<td>$0.5</td>
</tr>
<tr>
<td>FY2013</td>
<td>$0.8</td>
<td>$0.8</td>
</tr>
<tr>
<td>FY2014</td>
<td>$0.8</td>
<td>$0.9</td>
</tr>
<tr>
<td>FY2015</td>
<td>$0.9</td>
<td>$1.9</td>
</tr>
<tr>
<td>FY2016</td>
<td>$1.9</td>
<td></td>
</tr>
<tr>
<td>FY2017</td>
<td>$4.0</td>
<td>$0.5</td>
</tr>
</tbody>
</table>
Total Undergraduate Financial Aid Resources does not include Private Support. It is comprised of Unfunded Scholarships, General Fund, and Institutional Resources.
### Incremental Maintenance Reserves Support: Auxiliaires

(Dollars in Millions)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Actual</td>
<td>$0.99</td>
<td>$0.98</td>
<td>$0.35</td>
<td>$1.07</td>
<td>$0.73</td>
<td>$1.33</td>
</tr>
<tr>
<td>Target</td>
<td>$0.0</td>
<td>$0.20</td>
<td>$0.40</td>
<td>$0.60</td>
<td>$0.80</td>
<td>$1.40</td>
</tr>
</tbody>
</table>

*Graph showing the comparison between actual and target dollars for Auxiliares from FY2012 to FY2017.*
Maintenance Reserve Support: Auxiliaires
(Dollars in Millions)

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>$5.2</td>
<td>$6.2</td>
<td>$7.2</td>
<td>$7.5</td>
<td>$8.6</td>
<td>$9.3</td>
<td>$10.7</td>
</tr>
</tbody>
</table>

Total Maintenance Reserve
## University Debt Rating

<table>
<thead>
<tr>
<th>Year</th>
<th>Aaa</th>
<th>AAA</th>
<th>Aaa</th>
<th>AAA</th>
<th>Aaa</th>
<th>AAA</th>
<th>Aaa</th>
<th>AAA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>AA</td>
<td>+</td>
<td>AA</td>
<td>+</td>
<td>AA</td>
<td>+</td>
<td>AA</td>
<td>+</td>
</tr>
<tr>
<td>2015</td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
<td>AA</td>
<td></td>
</tr>
</tbody>
</table>

*MOODY'S S&P MOODY'S S&P MOODY'S S&P MOODY'S S&P*
University Debt Ratio

Preliminary ratio for Fiscal Year 2017

Actual Debt Ratio
Projected Debt Ratio
Finance and Audit Committee Internal Guidance

Preliminary ratio for Fiscal Year 2017
Central Funding of Research Computing
(as percentage of annual externally funded research expenditures for previous year)

Actual FY17 dollar amount = $8,786,924 ($1,818,006 Budget Office allocation, $257,253 Investment Computing Program, and $6,711,665 additional IT support)
Measures for Effective Resource Development

- Endowment Market Value
- Virginia Tech Foundation Assets
- Yearly Fundraising Total (cash flow) at Face Value
- Yearly New Gifts and Commitments
Endowment Market Value
(Dollars in Millions)
VT Foundation Assets
(Dollars in Millions)

Fiscal Year
FY2010 $1,023.6
FY2011 $1,155.1
FY2012 $1,210.7
FY2013 $1,302.7
FY2014 $1,488.8
FY2015 $1,507.8
FY2016 $1,510.6
FY2017 $1,724.0
Yearly Fundraising total (cash flow) at face value (Dollars in Millions)

The total amount of gifts received for the fiscal year.
Yearly New Gifts and Commitments
(Dollars in Millions)

The total amount of new pledges and outright gifts recorded within the fiscal year.
Questions?
<table>
<thead>
<tr>
<th>Measure</th>
<th>Metric Definition and Information Source(s)</th>
<th>Performance Toward Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditures with SWaM suppliers</td>
<td>Actual expenditures as measured by percentage of actual goal achieved; this is not a static measure, as expenditures increase, achieving the same percentage increases</td>
<td>85% (VT 100%) 90.4% 99.0% 93.0%</td>
</tr>
<tr>
<td>Management's timely response to Internal Audit Comments</td>
<td>Actual performance in implementing internal audit recommendations by the original target date</td>
<td>95% 98.0% 100.0% 100.0%</td>
</tr>
<tr>
<td>Workforce composition of faculty</td>
<td>Percentage of underrepresented full-time faculty (snapshot data as of September 30; underrepresented tenured &amp; tenure-track faculty numbers do not include those self-identifying as Asian)</td>
<td>Growth 7.7% 6.8% 7.0%</td>
</tr>
<tr>
<td>Workforce composition of all employees</td>
<td>Percentage of minority full-time employees (snapshot as of September 30; tenured &amp; tenure-track, non-tenure-track instructional, and research faculty are included in &quot;All Other Faculty&quot;; faculty and staff numbers include those self-identifying as Asian)</td>
<td>Growth 14.64% 14.88% 15.67%</td>
</tr>
<tr>
<td>Classroom Utilization Rate (measured biennially)</td>
<td>The utilization rate reflects an overall use of campus &quot;slices&quot; or seats in rooms by the ratio of seats occupied to total seats available.</td>
<td>60% 69.1% -</td>
</tr>
<tr>
<td>Classroom Laboratory Utilization Rate (measured biennially)</td>
<td>The utilization rate reflects an overall use of campus &quot;slices&quot; or seats in rooms by the ratio of seats occupied to total seats available.</td>
<td>72% - 69.2% -</td>
</tr>
<tr>
<td>E-Commerce transactions</td>
<td>Number of electronic payments as a percentage of total non-cancelable expenditures</td>
<td>60% 65.0% 67.0% 73.0%</td>
</tr>
<tr>
<td>Administration of research computing</td>
<td>The investment will be calculated as a percentage of the annual externally funded research expenditures for the previous year. The actual dollar amount for annual externally funded research expenditures for FY16 was $292,979,036; the total university allocation for research computing in FY17 was $86,786,924.</td>
<td>3.31% 4.09% 3.07%</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>The university will centrally commit funding for the investment in research computing, enabling expanded computational science based research. This is not a static measure.</td>
<td>4.27% 4.18% 3.67%</td>
</tr>
<tr>
<td>University debt ratio</td>
<td>The university’s actual annual debt service as a percent of its total operating expenses</td>
<td>4.27% 4.18% 3.67%</td>
</tr>
<tr>
<td>University debt rating</td>
<td>The university’s annual debt service as a percent of its total operating expenses</td>
<td>Moody's/Aaa S&amp;P/AA Moody's/Aaa S&amp;P/AA Moody's/Aaa S&amp;P/AA</td>
</tr>
<tr>
<td>University Funding Support: Auxiliaries</td>
<td>Maintenance reserve funding for auxiliaries</td>
<td>Growth 5.8% 5.3% 10.7%</td>
</tr>
<tr>
<td>University endowment</td>
<td>The market value of endowment assets managed by the Virginia Tech Foundation</td>
<td>Outperforming endowment policy benchmark over a 3, 5, and 10-year rolling period $817.8M $843.0M $995.8M</td>
</tr>
<tr>
<td>University year-end balances</td>
<td>Total of VT Foundation assets</td>
<td>Growth 6.0% 5.1% 5.1% 6.0%</td>
</tr>
<tr>
<td>University fundraising total (cash flows) at face value</td>
<td>The total amount of gifts received for the fiscal year</td>
<td>$106M in Cash $89.7M $101.5M $125.0M</td>
</tr>
<tr>
<td>University new gifts and commitments</td>
<td>The total amount of new pledges and outright gifts recorded within the fiscal year</td>
<td>$100.42M $162.28M</td>
</tr>
</tbody>
</table>

Performance is improving annually
Performance is level or mixed
Performance is declining
Virginia Tech Carilion School of Medicine: Structured for Success

Virginia Tech Board of Visitors

Cynda Ann Johnson, M.D., M.B.A.
President and Founding Dean

November 5, 2017
Mission Statement

To develop physician thought leaders through inquiry, research, and discovery, using an innovative curriculum based upon adult learning methods in a patient-centered context. Our graduates are physicians with outstanding clinical skills and significantly enhanced research capabilities who will remain life-long learners. They have an understanding of the importance of interprofessionalism to enable them to more effectively function as part of a modern healthcare team.
VTCSOM Admissions Profile

Chosen from over 4400 AMCAS applications.

42 different paths to medical school

48% Males
52% Females

Academic Metrics:

**MCAT (previous version)**
Range: 31-35, Average: 33 (91st percentile)

**MCAT (new)**
Range: 503-520, Average: 511 (87th percentile)

**Undergraduate GPA**
Range: 3.32-3.92, Average: 3.6

Advanced Degrees: 23%
Average Graduate GPA: 3.7

Socio-Economically Distance Traveled and First Generation: 35%

Racial Diversity: Under-Represented in Medicine: 14%

ONE DREAM

CLASS OF 2021

14 States
27 Colleges and Universities

Virginia Tech Carilion
School of Medicine and Research Institute
VTCSOM Student Success

<table>
<thead>
<tr>
<th>Class</th>
<th><strong>USMLE Step 1</strong></th>
<th><strong>USMLE Step 2 CK</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VTCSOM</td>
<td>National Average</td>
</tr>
<tr>
<td>2014</td>
<td>241</td>
<td>227</td>
</tr>
<tr>
<td>2015</td>
<td>232</td>
<td>228</td>
</tr>
<tr>
<td>2016</td>
<td>237</td>
<td>229</td>
</tr>
<tr>
<td>2017</td>
<td>237</td>
<td>229</td>
</tr>
<tr>
<td>2018</td>
<td>238</td>
<td>228</td>
</tr>
<tr>
<td>2019</td>
<td>234</td>
<td>TBD</td>
</tr>
</tbody>
</table>

• 100% pass rate among graduates who have taken USMLE Step 3
• 150/161 (93.2%) VTCSOM graduates matched into their specialty of 1st choice
• Each of the 1st four graduating classes had a 100% match rate

*With 38 scores reported (three yet to be reported)
**United States Medical Licensing Examination
***Clinical Knowledge
Curricular Enhancements by Value Domains

• Basic Science
  – Technological upgrade to the Virginia Intercollegiate Anatomy Lab (VIAL); donation of Anatomage table to VT Vet School
  – Launched MD/MS Degree with the TBMH Program

• Clinical Science
  – Entrustable Professional Activities (EPAs) Assessment
  – National Exposure for Bedside Ultrasound Program

• Research
  – Enhanced Biostatistics and Epidemiology Curriculum
  – Research Immersion: 3-year longitudinal, hypothesis-driven, individual student project

• Interprofessionalism
  – Culinary Medicine Track – partner with Virginia Western
ON-GOING
• 126 on-going research projects with 73 VTCSOM faculty mentors
• 49% of students are working with VT faculty (both VTCRI and Blacksburg)

SUCCESS WITH OUR 4-YEAR RESEARCH PROGRAM
• Over 250 presentations (37 podium)
• 61 publications to date; 38 with VTCSOM students as first authors
• 14 awards at meetings; 11 research fellowships
  • Fulbright scholarship
  • HHMI fellowship
  • St. Baldrick’s Foundation (cancer research)
Academic Year 2017-2018 Independent Student Analysis (ISA) of VTCSOM

• Requirement for Liaison Committee on Medical Education accreditation
• Number of questions on ISA \( N = 338 \)
• Number of measurements taken across all four classes \( N = 902 \)
• 100% of students completed the survey
• Students chose measurements with \( >97\% \) of students being satisfied/very satisfied as strengths of the school
• Students chose measurements with \( <75\% \) being satisfied/very satisfied as opportunities for improvement

Overall, 97.1% of measurements reached the “97% student satisfaction threshold.”

Overall, 97.1% of measurements reached the “75% student satisfaction threshold” and only 2.9% of measurements did not.
Board of Visitors Meeting Schedule
November 4-6, 2017

Saturday, November 4: [Saturday activities are for BOV members and spouses/partners]

Late morning  BOV arrives
11:30 a.m.  Depart from the front of The Inn for lunch with students in West End Market
(students invited by BOV student reps)
1:00 p.m.  Tours of campus (B&G meeting) – includes Corps facilities, Kentland, old/new residence
Halls, student meeting spaces
5:00 - 6:00 p.m.  Campus Master Plan presentation in The Cube
6:00 p.m.  Dinner for the BOV

Sunday, November 5:  All activities during the day on Sunday are at The Inn unless otherwise noted.

8:00 – 8:15 a.m. Compliance, Audit, and Risk Committee (Kazmi, Long, Mills, Valeiras)
meets in Closed Session in the Duck Pond Room.
8:15 – 9:45 a.m. Compliance, Audit, and Risk Committee (Kazmi, Long, Mills, Valeiras)
meets in Open Session in the Solitude Room. All Board members are encouraged to attend.
9:45 – 10:00 a.m. Compliance, Audit, & Risk Committee and Buildings & Grounds Committee meet
jointly in Open Session in the Solitude Room. All Board members are encouraged to attend.
10:00 - 11:30 a.m. Buildings & Grounds Committee meets in Open Session (for business items)
(Quillen, Hill, Mills), Solitude Room. All Board members are encouraged to attend.
11:30 - 12:00 p.m. BOV brunch at The Inn, in the 1872 Salon.
12:30 - 2:15 p.m. Information Session for the full Board, Torgersen Hall Board Room (2100.)
Agenda includes:
1. Scorecard presentation (12:30-1:15)
2. Medical School integration (1:30-2:15)
3:00 – 4:15 p.m. Yo-Yo Ma performance at The Moss Arts Center. (Transportation will be provided
to the Moss Arts Center and back to The Inn for following the performance.)
6:30 p.m.  Bus departs from the front of The Inn to The Grove for dinner (by invitation only)
Transportation will be provided back to The Inn after dinner.

Monday, November 6: All meetings on Monday morning will be held at The Inn unless otherwise noted.
(If unaccompanied by spouse, check out of hotel room before lunch
 to avoid additional charges and facilitate departure after full Board meeting.)

Breakfast Buffet at The Inn will be served until 9:30 a.m. There will be reserved tables in Preston’s Dining Room

8:00 a.m.  Finance and Resource Management Committee meets in Closed Session in the 1872 Salon.
8:15 a.m.  Academic, Research, and Student Affairs Committee meets in Closed Session in the
Duck Pond Room followed by Open Session at 8:45 a.m.
8:15 a.m.  Finance and Resource Management Committee meets in Open Session in the
Solitude Room.
9:00 a.m.  **Governance and Administration Committee** meets in **Open Session** in the Smithfield Room.

11:15 a.m.  **Buildings & Grounds Committee and Finance & Resource Management Committee** meet jointly in Open Session in the Solitude Room.

12:00 noon  **Lunch** for the Board in Latham Ballroom A.

1:00 p.m.  **Bus departs promptly from the front of The Inn.**

1:15 p.m.  **Full Board Meeting** in Torgersen Hall Board Room (2100.)

4:00 p.m.  (time approximate) Meeting concludes/depart Blacksburg; transportation provided back to The Inn, The Grove, and VT Airport.
INDEX - Board of Visitors Meeting – November 4-6, 2017

Cover Cover, Index, Membership Listing, Committee Assignments

Tab A Information Session – Sunday, November 5, 2017

Tab B Open Session Agenda – Monday, November 6, 2017

Tab C Approval of Consent Agenda Open Items
- Approval of Minutes from September 11, 2017 Meeting
- Academic, Research, and Student Affairs Committee General Report – Monday, November 6, 2017 Meeting
- Buildings and Grounds Committee General Report – Sunday, November 5, 2017 Meeting
- Compliance, Audit, and Risk Committee General Report – Sunday, November 5, 2017 Meeting
- Finance and Resource Management Committee General Report – Monday, November 6, 2017 Meeting
- Governance and Administration Committee General Report – Monday, November 6, 2017 Meeting
- Resolution for Approval of the New Bachelor of Science Degree in Public Health
- *Resolution for Approval of the Pratt Fund Program and Expenditures Report
- Resolution for Approval for the Exclusion of Certain Officers/Directors
- Resolution for Approval to Create an Easement and/or Amend the Virginia Tech/Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch
- **Review of Charters (for information only)
  - Charter for the Office of Audit, Risk, and Compliance
  - Compliance, Audit, and Risk Committee Charter
- Report of Research and Development Disclosures (no action required)

Tab D Report of Academic, Research, and Student Affairs Committee - Agenda/Briefing Report

Tab E Academic, Research, and Student Affairs Agenda Items for Board Approval
- *Resolution for Approval of the Integration of the Virginia Tech Carilion School of Medicine

Tab F Report of Buildings and Grounds Committee - Agenda/Briefing Report

Tab G Buildings and Grounds Agenda Items for Board Approval
- Resolution Supporting the Amendment to the September 11, 2017 Resolution Supporting Amendment of Chapter 638 Virginia Acts of Assembly Relating to the New River Valley Emergency Communications Authority
- ***Resolution for Approval of a Capital Project for Student Wellness Improvements Project

Tab H Report of Compliance, Audit, and Risk Committee – Agenda/Briefing Report

Tab I Report of the Finance and Resource Management Committee – Agenda/Briefing Report

Tab J Finance and Resource Management Agenda Items for Board Approval
- *Resolution for Approval of the Integration of the Virginia Tech Carilion School of Medicine
- Resolution for Approval of Year-to-Date Financial Performance Report (July 1, 2017-September 30, 2017)
- ***Resolution for Approval of a Capital Project for Student Wellness Improvements Project

Tab K Report of Governance and Administration Committee - Agenda/Briefing Report
Tab L  Open Session President's Report Items for Board Approval and Information
   • Beyond Boundaries Update (no action required)
   • InclusiveVT Update (no action required)

Tab M  Constituent Reports – (No action required)
   • Undergraduate Student Representative to the Board – Mr. Seyi Olusina
   • Graduate Student Representative to the Board – Mr. Brett Netto
   • President of Staff Senate – Mr. Robert Sebek
   • President of Faculty Senate – Dr. Hans Robinson

Tab N  Motion to Begin Closed Session

Tab O  Closed Session Agenda – Monday, November 6, 2017

Tab P  Approval of Consent Agenda Closed Items
   • Resolutions for Approval of Emeritus Requests (6)
   • Resolutions for Approval of Endowed Chairs, Professorships, or Fellowships (4)
   • Resolution for Approval of Faculty Leave Request (1)

Tab Q  Closed Session Salary and Personnel Actions for Board Approval
   • *Resolution for Approval of the 2017-18 National Distinction Salary Adjustments
   • *Resolution for Ratification of the Personnel Changes Report

Tab R  Closed Session President's Report Items for Board Approval and Information
   • Resolutions for Approval of External Awards (2)
   • Resolutions on Naming University Facilities (3)

Tab S  Litigation Report – (Not for approval)

Tab T  Motion to Return to Open Session

*These items have been reviewed by the Academic, Research, and Student Affairs Committee and the Finance and Resource Management Committee of the Board of Visitors.

**These items have been reviewed by the Compliance, Audit, and Risk Committee and the Governance and Administration Committee of the Board of Visitors.

***This item has been reviewed by the Buildings and Grounds Committee and the Finance and Resource Management Committee of the Board of Visitors.

There is no public comment period at this meeting.
CURRENT MEMBERS OF THE BOARD OF VISITORS:

Mr. Greta J. Harris
Mr. Charles T. Hill
Ms. Anna L. James
Mr. Mehmood S. Kazmi
Ms. Letitia A. Long
Mr. Robert J. Mills
Ms. Deborah Leigh Martin Petrine, Vice-Rector
Mr. Michael J. Quillen
Mr. L. Chris Petersen
Rev. Wayne H. Robinson
Mr. Mehul P. Sanghani
Mr. Dennis H. Treacy, Rector
Mr. Horacio A. Valeiras
Mr. Jeff E. Veatch

Undergraduate Student Representative: Mr. Seyi Olusina
Graduate Student Representative: Mr. Brett Netto
Staff Senate Representative: Mr. Robert Sebek
Faculty Senate Representative: Dr. Hans Robinson

ADMINISTRATIVE STAFF:

Dr. Timothy D. Sands: President
Dr. Cyril R. Clarke: Interim Executive Vice President and Provost

Dr. Karen DePauw: Vice President and Dean for Graduate Education
Dr. Michael J. Friedlander, Vice President for Health Sciences and Technology
Dr. Guru Ghosh: Vice President for Outreach and International Affairs
Dr. Theresa S. Mayer: Vice President for Research and Innovation
Dr. Steven H. McKnight: Vice President for the National Capital Region
Dr. Scott F. Midkiff: Vice President for Information Technology & Chief Information Officer
Ms. Kim O’Rourke: Vice President for Policy and Governance & Secretary to the Board
Dr. Patricia A. Perillo: Vice President for Student Affairs
Mr. Charles D. Phlegar: Vice President for Advancement
Dr. Menah Pratt-Clarke, Vice Provost for Inclusion and Diversity & Vice President for Strategic Affairs
Mr. M. Dwight Shelton: Vice President for Finance and Chief Financial Officer
Dr. Sherwood Wilson: Vice President for Operations

Ms. Kay K. Heidbreder: University Legal Counsel
Ms. Sharon M. Kurek: Director of Internal Audit
Mr. Christopher J. Yianilos: Executive Director of Government Relations
Academic, Research, and Student Affairs Committee
Debbie Petrine, Vice Rector, Committee Chair
Tish Long
Chris Petersen
Wayne Robinson

Buildings and Grounds Committee
Mike Quillen, Committee Chair
C. T. Hill
Robert Mills

Compliance, Audit, and Risk Committee
Mehmood Kazmi, Committee Chair (also rep GA)
Tish Long (rep ARSA)
Robert Mills (rep B&G)
Horacio Valeiras (rep FRM)

Finance and Resource Management Committee
Horacio Valeiras, Committee Chair
Greta Harris
Anna James

Governance and Administration Committee
Mehul Sanghani, Committee Chair
Mehmood Kazmi
Jeff Veatch

Executive Committee (6 members)
Dennis Treacy, Rector
Debbie Petrine, Vice Rector, Academic, Research, and Student Affairs Committee Chair
Mike Quillen, Buildings & Grounds Committee Chair
Mehmood Kazmi, Compliance, Audit, and Risk Committee Chair
Horacio Valeiras, Finance and Resource Management Committee Chair
Mehul Sanghani, Governance and Administration Committee Chair

The Rector is an ex officio member of all standing committees.
12:30 – 1:15 p.m.  Annual Progress Report on University Strategic Plan
   •  Dr. Timothy D. Sands, President
   •  Mr. M. Dwight Shelton, Jr., Vice President for Finance and Chief Financial Officer
   •  Dr. Ken Smith, Vice Provost for Resource Management and Institutional Effectiveness

1:30 – 2:15 p.m.  Virginia Tech Carilion School of Medicine: Structured for Success
   •  Dr. Cynda A. Johnson, President and Founding Dean, VTCSOM
Approval of Consent Agenda Open Items

The Full Board will consider for approval and acceptance the items listed on the Consent Agenda as follows.

- Approval of Minutes from September 11, 2017 Meeting
- Academic, Research, and Student Affairs Committee General Report – Monday, November 6, 2017 Meeting
- Buildings and Grounds Committee General Report – Sunday, November 5, 2017 Meeting
- Compliance, Audit, and Risk Committee General Report – Sunday, November 5, 2017 Meeting
- Finance and Resource Management Committee General Report – Monday, November 6, 2017 Meeting
- Governance and Administration Committee General Report – Monday, November 6, 2017 Meeting
- Resolution for Approval of the New Bachelor of Science Degree in Public Health
- *Resolution for Approval of the Pratt Fund Program and Expenditures Report
- Resolution for Approval for the Exclusion of Certain Officers/Directors
- Resolution for Approval to Create an Easement and/or Amend the Virginia Tech/Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch
- **Review of Charters (for information only)
  --Charter for the Office of Audit, Risk, and Compliance
  --Compliance, Audit, and Risk Committee Charter
- Report of Research and Development Disclosures (no action required)

*This item has been reviewed by the Academic, Research, and Student Affairs Committee and the Finance and Resource Management Committee of the Board of Visitors.

**These items have been reviewed by the Compliance, Audit, and Risk Committee and the Governance and Administration Committee of the Board of Visitors.
MINUTES

September 11, 2017

The Board of Visitors of Virginia Polytechnic Institute and State University met on Monday, September 11, 2017, at 1:20 p.m. in Torgersen Boardroom (Room 2100), Virginia Tech Campus, Blacksburg, Virginia.

Present

Ms. Greta J. Harris
Mr. C. T. Hill
Ms. Anna L. James
Mr. Mehmood S. Kazmi
Ms. Letitia A. Long
Mr. Robert J. Mills
Mr. L. Chris Petersen
Ms. Deborah Leigh Martin Petrine (Vice Rector)
Mr. Michael J. Quillen
Mr. Wayne H. Robinson
Mr. Mehul P. Sanghani
Mr. Dennis H. Treacy (Rector)
Mr. Horacio A. Valeiras
Mr. Jeff Veatch

Absent

Constituent Representatives:
Dr. Hans Robinson, Faculty Representative
Mr. Robert Sebek, Staff Representative
Mr. Brett Netto, Graduate Student Representative
Mr. Seyi Olusina, Undergraduate Student Representative

Also present were the following: President Timothy Sands, Deputy Chief William Babb, Mr. Robert Broyden, Ms. Lori Buchanan, Mr. Brock Burroughs, Mr. Ralph Byers, Ms. D'Elia Chandler, Ms. Shelia Collins, Mr. Al Cooper, Mr. John Cusimano, Mr. Brian Daniels, Dr. Karen DePauw, Dr. John Dooley, Mr. Corey Earles, Chief Kevin Foust, Dr. Michael Friedlander, Mr. David Guerin, Dr. Luisa Havens, Dr. Lee Hawthorne, Ms. Kay Heidbreder, Mr. Tim Hodge, Dr. Rachel Holloway, Ms. Sharon Kurek, Dr. Theresa Mayer, Dr. Steven McKnight, Ms. Nancy Meacham, Dr. Scott Midkiff, Mr. Mike Mulhare, Ms. April Myers, Ms. Kim O'Rourke, Mr. Mark Owczarski, Dr. Patty Perillo, Mr. Charles Phlegar, Dr. Ellen Plummer, Dr. Menah Pratt-Clarke, Mr. Chris Rahmes, Dr. Scot Ransbottom, Dr. Thanasssis Rikakis, Ms. Savita Sharma, Mr. Dwight Shelton, Ms. Sara Simpkins, Ms. Kayla Smith, Dr. Ken Smith, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Dr. Lisa Wilkes, Dr. Sherwood Wilson, Mr. Chris Yianilos, faculty, staff, students, guests, and reporters.

*****
Rector Treacy welcomed everyone to the Board meeting. He then asked that all pause for a moment of silence to remember the victims of September 11, 2001.

* * * * *

Rector Treacy welcomed the new Board members and new representatives: Ms. James, Ms. Long, Mr. Mills, Dr. Robinson, Mr. Sebek, Mr. Netto, and Mr. Olusina. He asked that all members introduce themselves.

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Rector Treacy announced the 2018 Board of Visitors’ meeting dates:

- March 25-26, 2018
- June 3-4, 2018
- August 26-27, 2018
- November 4-5, 2018

* * * * * * * * * *

Rector Treacy said that after at least 30 years of the same committee structures, the BOV committees have been altered a bit this year and best practices have been developed for the committees. Consent agendas will now be used by the committees and the full Board to deal with routine items. Any Board member may request that an item be removed from the consent agenda to be considered as part of the regular agenda.

APPROVAL OF THE CONSENT AGENDA
(Refer to Attachments A through L)

Rector Treacy asked for a motion to approve the consent agenda items as listed. The motion was made by Mr. Valeiras, seconded by Ms. Petrine, and approved unanimously.

Copies of consent agenda items are filed with the permanent minutes and marked as noted below:

- Minutes of the Board of Visitors Retreat held August 19, 2017
- Report of the Academic, Research, and Student Affairs Committee (9/10/17) – Attachment A
• Report of the Buildings and Grounds Committee (9/11/17) – Attachment B
• Report of the Compliance, Audit, and Risk Committee (9/11/17) – Attachment C
• Report of the Finance and Resource Management Committee (9/11/17) – Attachment D
• Report of the Governance and Administration Committee (9/11/17) – Attachment E

From the Academic, Research, and Student Affairs Committee Consent Agenda:
• Resolution to Ratify Changes to the 2017-18 Faculty Handbook – Attachment F

From the Buildings and Grounds Committee Consent Agenda:
• Resolution to Approve the Amendment for Atmos Gas Line Easements to Serve the Virginia Tech Baseball Facilities – Attachment G

This resolution revokes the authorization of a gas line extension along Duck Pond Drive and authorizes the Vice President for Operations, his successors and/or assigns, to execute an easement to extend an Atmos gas line to serve the planned new Virginia Tech baseball stadium.

• Resolution to Approve the Atmos Gas Line Extension Easement to the Virginia Tech Rector Field House – Attachment H

This resolution authorizes the Vice President for Operations, his successors and/or assigns, to execute an easement to extend Atmos’ gas line to serve the planned improvements to the Virginia Tech Rector Field house.

• Resolution to Approve an Update to the Capital Construction Delivery Method Approval Process – Attachment I

From the Finance and Resource Management Committee Consent Agenda:
• Resolution to Revise #12005 Policy on Commemorative Tributes – Attachment J

This resolution adds the position of the Vice Provost for Inclusion and Diversity to the membership of the Commemorative Tributes Committee, effective immediately.
Consent agenda information items; no Board of Visitors action required:

- Atlantic Coast Conference (ACC) Governing Board Annual Certification – Attachment K
- Report of Research and Development Disclosures – Attachment L

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REPORT OF THE ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

Rector Treacy called on Ms. Petrine to highlight matters of particular interest from the Academic, Research, and Student Affairs Committee meeting.

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REPORT OF THE BUILDINGS AND GROUNDS COMMITTEE

Rector Treacy called on Mr. Quillen for the report of the Buildings and Grounds Committee.

As part of the Buildings and Grounds Committee report, approval of the following resolution was moved by Mr. Quillen, seconded by Mr. Robinson, and approved unanimously.

Resolution Supporting the Amendment of Chapter 638 Virginia Acts of Assembly Relating to the New River Valley Emergency Communications Authority

That the resolution supporting the amendment of the act to permit implementation of a funding formula and the allocation of annual contributions among the Authority members based on use of authority services be approved. (Copy filed with the permanent minutes and marked Attachment M.)

* * * * *
As part of the Buildings and Grounds Committee report, approval of the following resolution was moved by Mr. Quillen, seconded by Mr. Robinson, and approved unanimously.

Resolution to Approve the Comprehensive Agreement for the Construction of a Virginia Tech Carilion Research Institute Biosciences Addition in Roanoke, Virginia, in Accordance with the Public-Private Education Facilities and Infrastructure Act (PPEA) of 2002

That the resolution to enter into the Comprehensive Agreement with Carilion Clinic to construct the VT Carilion Research Institute Biosciences Addition at the Riverside Center in Roanoke, Virginia, as provided by the PPEA; to authorize the Vice President for Operations, his successors and/or assigns, to execute the Comprehensive Agreement forthwith; and to direct the Vice President for Finance and Chief Financial Officer, his successors and/or assigns, to make the Comprehensive Agreement and the procurement file available for public inspection to the extent required by law be approved. (Copy filed with the permanent minutes and marked Attachment N.)

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REPORT OF THE COMPLIANCE, AUDIT, AND RISK COMMITTEE

Rector Treacy called on Mr. Kazmi to highlight matters of particular interest from the Compliance, Audit, and Risk Committee meeting.

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REPORT OF THE FINANCE AND RESOURCE MANAGEMENT COMMITTEE

Rector Treacy called on Mr. Valeiras for the report of the Finance and Resource Management Committee.
As part of the Finance and Resource Management Committee report, approval of the following resolution was moved by Mr. Valeiras, seconded by Mr. Mills, and approved unanimously.

Resolution to Approve the Year-to-Date Financial Performance Report
(July 1, 2016 – June 30, 2017)

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2016, through June 30, 2017, and the Capital Outlay report be approved. (Copy filed with the permanent minutes and marked Attachment O.)

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As part of the Finance and Resource Management Committee report, approval of the following resolution was moved by Mr. Valeiras, seconded by Ms. Petrine, and approved unanimously.

Resolution to Approve the Virginia Tech Carilion Research Institute Biosciences Addition 9(d) Debt Financing

That the resolution authorizing the issuance of 9(d) bonds through the Virginia College Building Authority on behalf of the university for the Virginia Tech Carilion Research Institute Biosciences Addition – Capital Outlay Project Number 18269 be approved. (Copy filed with the permanent minutes and marked Attachment P.)

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As part of the Finance and Resource Management Committee report by Mr. Valeiras and with the endorsement of the Buildings and Grounds Committee, approval of the following resolution was moved by Mr. Valeiras, seconded by Mr. Hill, and approved unanimously.

Resolution to Approve the Capital Lease for the Applied Projects Building in the Corporate Research Center

That the resolution authorizing Virginia Tech to enter into a capital lease with the Virginia Tech Foundation for the Applied Projects Building be approved. (Copy filed with the permanent minutes and marked Attachment Q.)
As part of the Finance and Resource Management Committee report by Mr. Valeirnas and with the endorsement of the Buildings and Grounds Committee, approval of the following resolution was moved by Mr. Valeirnas, seconded by Mr. Hill, and approved unanimously.

Resolution to Approve the Capital Lease for the Virginia Tech Transportation Institute Intern Park Facility

That the resolution authorizing Virginia Polytechnic Institute and State University to enter into a capital lease with the Virginia Tech Foundation to construct the Intern Park Facility be approved. (Copy filed with the permanent minutes and marked Attachment R.)

As part of the Finance and Resource Management Committee report by Mr. Valeirnas and with the endorsement of the Buildings and Grounds Committee, approval of the following resolution was moved by Mr. Valeirnas, seconded by Mr. Mills, and approved unanimously.

Resolution to Approve the Capital Project for the Dietrick First Floor and Plaza Renovation Project

That the resolution authorizing Virginia Tech to complete the Dietrick First Floor and Plaza Renovation Project be approved. (Copy filed with the permanent minutes and marked Attachment S.)

REPORT OF THE GOVERNANCE AND ADMINISTRATION COMMITTEE

Rector Treacy called on Mr. Sanghani to highlight matters of particular interest from the Governance and Administration Committee meeting.
REPORT ON THE MEDICAL SCHOOL INTEGRATION

The Rector called on Ms. Petrine for a report on the Medical School Integration. Ms. Petrine serves as the BOV liaison to the Medical School Integration Steering Committee. The goal of the committee is the successful integration of the Virginia Tech Carilion School of Medicine (VTCSOM) into the university on July 1, 2018. Ms. Petrine provided the following updates:

- SCHEV – has confirmed that upon integration Virginia Tech will have the authority to confer the MD degree; there may be a presentation in January to SCHEV about the integration of the VTCSOM into Virginia Tech.

- SACSCOC – the university is in communication with the SACSCOC accrediting body regarding current and future documentation needs.

- US Department of Education – the university is in communication with the US Department of Education to insure there is no break in financial aid for medical students at the point of integration. Virginia Tech will provide “bridge” loans to students if for any reason there is a break in funding.

- The university and Carilion Clinic continue to discuss a memorandum of understanding (MOU) and other legal and financial agreements.

- Infrastructure needs such as IT, library, and the integration of academic student services continue to be reviewed by several dedicated work groups who bring issues and recommendations to the integration steering committee for consideration.

- Plans are being developed to provide services such as counseling, medical care, and wellness for medical students on the Roanoke campus.

- The school has arranged for an informational site visit by the Liaison Committee on Medical Education (LCME), which is the national accrediting body for schools of medicine. The aim is to receive feedback on financial and governance arrangements.

Rector Treacy expressed the Board’s appreciation for Ms. Petrine’s continued work with the VTCSOM on the integration.
PRESIDENT’S REPORT

As part of the report by President Sands, the following resolution was moved by Mr. Valeiras, seconded by Ms. Petrine, and approved unanimously.

Resolution of Appreciation Honoring James L. Chapman

That the resolution recognizing James L. Chapman for his service as a member and Rector of the Board of Visitors be approved. (Copy filed with the permanent minutes and marked Attachment T.)

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As part of the report by President Sands, the following resolution was moved by Mr. Quillen, seconded by Ms. Petrine, and approved unanimously.

Resolution of Appreciation Honoring J. Thomas Ryan

That the resolution recognizing J. Thomas Ryan for his service as a member of the Board of Visitors be approved. (Copy filed with the permanent minutes and marked Attachment U.)

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As part of the report by President Sands, the following resolution was moved by Mr. Mills, seconded by Ms. Petrine, and approved unanimously.

Resolution of Appreciation Honoring Steve Sturgis

That the resolution recognizing Steve Sturgis for his service as a member of the Board of Visitors be approved. (Copy filed with the permanent minutes and marked Attachment V.)

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A copy of President Sands’ remarks to the Board of Visitors is filed with the permanent minutes and marked Attachment W.

* * * * * * * * * *
Motion to Begin Closed Session

Ms. Petrine moved that the Board convene in a closed meeting, pursuant to § 2.2-3711, Code of Virginia, as amended, for the purposes of discussing:

1. Appointment of faculty to Emeritus status, the consideration of individual salaries of faculty, consideration of Endowed Professors, review of departments where specific individuals’ performance will be discussed, and consideration of personnel changes including appointments, resignations, tenure, and salary adjustments of specific employees and faculty leave approvals;

2. The status of current litigation and briefing on actual or probable litigation;

3. Special Awards;

4. Security of public buildings,

all pursuant to the following subparts of 2.2-3711 (A), Code of Virginia, as amended, .1, .7, .10, and .19. The motion was seconded by Mr. Sanghani and passed unanimously.

* * * * *

Motion to Return to Open Session

Following the Closed Session, members of the media, students, and the public were invited to return to the meeting. Rector Treacy called the meeting to order and asked Ms. Petrine to make the motion to return to open session. Ms. Petrine made the following motion:

WHEREAS, the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provision of The Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712 of the Code of Virginia requires a certification by the Board of Visitors that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED that the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member’s knowledge: (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed, or considered by the Board of Visitors.

The motion was seconded by Mr. Valeiras and passed unanimously.
A motion to approve the following block of resolutions (5) was moved by Mr. Mills, seconded by Mr. Veatch, and passed unanimously.

Approval was given to the resolutions to **Name University Facilities** (2) as considered in Closed Session. (Copies filed with the permanent minutes and marked Attachment X.)

Approval was given to the resolutions for **Emeritus status** (17) as considered in Closed Session. (Copies filed with the permanent minutes and marked Attachment Y.)

Approval was given to the resolution for **Endowed Chairs, Professorships, and Fellowships** (1) as considered in Closed Session. (Copy filed with the permanent minutes and marked Attachment Z.)

Approval was given to the resolution for an **Exception to the Conflict of Interests Act** (1) as considered in Closed Session. (Copy filed with the permanent minutes and marked Attachment AA.)

The **Personnel Changes Report including the President’s compensation** as considered in Closed Session was ratified. This item was reviewed by the Finance & Resource Management and the Academic, Research, & Student Affairs Committees. (Copy filed with the permanent minutes and marked Attachment BB.)

**Litigation Report**

No Action Required

Unapproved
Constituent Reports (no action required)  
(Presented at BOV Information Session on September 10, 2017)  

Undergraduate Student Representative to the Board – Mr. Seyi Olusina  
Graduate Student Representative to the Board – Mr. Brett Netto  
Staff Representative to the Board – Mr. Robert Sebek  
Faculty Representative to the Board – Dr. Hans Robinson  

(Copies filed with the permanent minutes and marked Attachment CC.)  

* * * * *  

Following a motion by Mr. Valeiras and second by Mr. Quillen, the meeting was adjourned at 3:41 p.m.  

* * * * *  

Subject to modification, the dates of the next regular meeting are November 5-6, 2017, in Blacksburg, Virginia.  

________________________  
Dennis H. Treacy, Rector  

________________________  
Kim O'Rourke, Secretary
Academic, Research, and Student Affairs General Report of November 6, 2017 will be presented at Monday’s meeting of the Board
Buildings and Grounds General Report of November 5, 2017 will be presented at Monday’s meeting of the Board
Compliance, Audit, and Risk

General Report

of November 5, 2017

will be presented at

Monday’s meeting of the Board
Finance and Resource Management
General Report
of November 6, 2017
will be presented at
Monday’s meeting of the Board
Governance and Administration
General Report of November 6, 2017
will be presented at
Monday’s meeting of the Board
RESOLUTION TO APPROVE BACHELOR OF SCIENCE DEGREE IN PUBLIC HEALTH

Documents included:
1. Resolution to Establish Bachelor of Science Degree in Public Health
2. Supporting Documentation- Bachelor of Science Degree in Public Health
RESOLUTION TO APPROVE BACHELOR OF SCIENCE DEGREE IN PUBLIC HEALTH

WHEREAS, individual and community health problems can be ameliorated through implementation of public health core responsibilities and essential services; and

WHEREAS, the Institute of Medicine (now the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine) sees a public health trained workforce as an important component in helping the United States close gaps in health outcomes; and

WHEREAS, the Centers for Disease Control and Prevention reports that serious public health workforce shortages exist; and

WHEREAS, there is currently no accredited Bachelor of Science in Public Health degree offered at other higher education institutions in Virginia; and

WHEREAS, Virginia Tech is advancing health sciences curricula, research, and majors; and

WHEREAS, the undergraduate demand for a Bachelor of Science in Public Health degree is sizable; and

WHEREAS, a Master of Public Health degree, accredited by the Council on Education for Public Health (CEPH), is currently offered by the Department of Population Health Sciences in the Virginia-Maryland College of Veterinary Medicine; and

WHEREAS, the Bachelor of Science in Public Health, to be offered in the Department of Population Health Science in the Virginia-Maryland College of Veterinary Medicine, would be added to the CEPH accreditation of the Public Health Program;

THEREFORE BE IT RESOLVED that the Bachelor of Science in Public Health be approved effective fall 2018 and the proposal forwarded to the President, the Board of Visitors, and the State Council of Higher Education for Virginia (SCHEV) for approval, and to the Southern Association of Colleges and Schools (SACS) for notification.

RECOMMENDATION:

That the above resolution recommending the establishment of the Bachelor of Science in Public Health be approved, pending the approval by the State Council of Higher Education for Virginia and notification to the Southern Association of Colleges and Schools (SACS) for notification.

November 6, 2017
Virginia Tech Degree Proposal

Bachelor of Science in Public Health (BSPH)

CIP: 51.2201

Type of degree action: New

Program Background

Health is defined as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (http://www.who.int/aboutwho/en/definition.html). Public health is “the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society” (http://whqlibdoc.who.int/hq/1998/WHO_HPR_HEP_981.pdf). The United States spends more than any developed country on health care and yet U.S. health outcomes are inferior to countries which spend much less. In fact, the U.S. health care system is ranked 37th internationally (http://thepatientfactor.com/canadian-health-care-information/world-health-organizations-ranking-of-the-worlds-health-systems/). Within the U.S., public health outcomes vary widely (http://www.americashealthrankings.org/explore/2015-annual-report) with Virginia ranked as 21, while other nearby states rank even lower (N. Carolina, 31; Tennessee, 43; Kentucky, 44; W. Virginia, 47). In response to concerns about public health, the U.S. Office of the Assistant Secretary for Health, Health and Human Services (HHS) recently released ‘Public Health 3.0’, A Call to Action to Create a 21st Century Public Health Infrastructure (https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf). This report concludes that “the public health workforce must acquire and strengthen its knowledge base, skills, and tools in order to meet the evolving challenges to population health, to be skilled at building strategic partnerships to bring about collective impact, to harness the power of new types of data, and to think and act in systems perspective. This will require a strong pipeline into the public health workforce, as well as access to ongoing training and mid-career professional development resources”. The Centers for Disease Control and Prevention (CDC) also notes that “serious public health workforce shortages exist in disciplines that perform surveillance functions and these shortages limit the nation’s capacity and plans for enhancement” (Drehobl, 2012). The Institute of Medicine, a strong supporter of public health, sees a public health trained workforce as an important component in helping the United States close gaps in health outcomes. In their 2012 report, For the Public’s Health (https://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2012/For-the-Publics-Health/phfunding_rb.pdf), the IOM highlights the types of skills that will be needed for this effort: “Public health departments can play several crucial roles in helping the nation reach these goals. In the past, public health has leveraged many partners to control — and even vanquish — infectious diseases through effective prevention strategies, sharply diminish environmental lead exposures, and nearly halve tobacco use. Today, public health departments can continue to bring together partners to assess community needs, and to plan and implement activities intended to meet key challenges in the areas of chronic disease, injury, emerging infectious diseases, mental health, and environmental health.”

Virginia Tech currently offers an accredited Master of Public Health (MPH) degree as well as a number of undergraduate courses with public health relevance. However, there is no undergraduate program at Virginia Tech that addresses all the Council on Education for Public Health (CEPH) Bachelor of Science in Public Health (BSPH) accreditation criteria. CEPH accreditation criteria is focused on
providing students with the skills and expertise necessary to join the public health workforce or to prepare for graduate programs in public health and allied fields.

The Department of Population Health Sciences in the Virginia Maryland College of Veterinary Medicine is requesting approval to offer a Bachelor of Science in Public Health (BSPH) degree beginning Fall, 2018. No other Commonwealth university offers the BSPH degree.

The overall undergraduate curriculum introduces students to foundations of scientific knowledge including the biological and life sciences and the concepts of health and disease; foundations of social and behavioral sciences; public health data analytics; biostatistics; epidemiology; environmental health; health behavior; and health policy and administration. More specifically, the following content will be covered:

- The history and philosophy of public health as well as the core values, concepts, and functions across the globe and in society;
- The basic concepts, methods, and tools of public health data collection, use and analysis and why evidence-based approaches are an essential part of public health practice;
- The concepts of population health, and the basic processes, approaches and interventions that identify and address the major health-related needs and concerns of populations;
- The underlying science of human health and disease, including opportunities for promoting and protecting health across the life course;
- The socioeconomic, behavioral, biological, environmental and other factors that impact human health and contribute to health disparities;
- The fundamental concepts and features of project implementation, including planning, assessment and evaluation;
- The fundamental characteristics and organizational structures of the US health system as well as the differences between systems in other countries;
- Basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy and the roles, influences, and responsibilities of the different agencies and branches of government;
- Basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology.
- Ability to communicate public health information, in both oral and written forms, through a variety of media and to diverse populations;
- The ability to locate, use, evaluate and synthesize public health information.

Mission

The mission of the BSPH program is to prepare graduates for placement directly into the public health workforce or into graduate programs in public health and allied fields. The BSPH program will be grounded in a One Health model which involves the human-animal-environmental health interface and provides experiential learning and professional preparation in the core and concentration competencies, functions and responsibilities of public health.

Faculty and students will serve community needs through development of mutually beneficial partnerships with communities, local health departments, medical and veterinary organizations, community-based organizations, other public health and private institutions to improve local, state, regional, national and global public health, contribute to workforce development and advance One Health.
Online Delivery
Currently two of the core courses are available online and while some general education and elective courses may be online the intent is to offer this program face-to-face.

Accreditation
The Department of Population Health Sciences in the Virginia Maryland College of Veterinary Medicine has a CEPH accredited Public Health Program which currently operates the Master of Public Health (MPH) degree. The BSPH program will stand for accreditation under the current Public Health Program accreditation.

Advisory Board
The current Public Health External Advisory Board includes representatives from public health-affiliated agencies, institutions, associations and corporations. This Board will oversee both the BSPH and MPH programs.

Charge -- The External Advisory Board offers an external perspective on all aspects of the program. Specifically, the Advisory Board:

- Represents important health stakeholders in the region and beyond;
- Advises program leaders on issues related to program accreditation;
- Lends advice on sound financial practices the program should follow to be self-supporting;
- Helps identify relevant funding opportunities; and
- Assists in networking and student field placement; and
- Assists in promoting the program.

Advisory Board Members

- John Dreyzehner, MD, MPH; Chair Commissioner of Health, Tennessee Former Director, Cumberland Plateau Health District Virginia Department of Health
- Nathaniel L. (N.L.) Bishop, M.S.Ed, D.Min. President, Jefferson College of Health Sciences Chair of Department of Interprofessionalism VTCSOM
- Ben Davenport, Jr.; Chairman, Davenport Energy & First Piedmont Corporation
- Katherine Feldman, DVM, MPH, DACVPM State Public Health Veterinarian Maryland Department of Health and Mental Hygiene
- Bill Gruchow, PhD; Professor, Department of Public Health Education University of North Carolina at Greensboro
- Andy Morikawa Executive Director Emeritus (retired 2011) Community Foundation of The New River Valley
- Molly O’Dell, MD, MFA, Director, New River Health District Virginia Department of Health
Admission Criteria
Undergraduates will have the opportunity to be admitted directly into the BSPH program as a part of their Virginia Tech application. Virginia Tech requires all entering freshmen to have completed:

- 18 units of high-school course work;
- 4 units of English;
- 3 units of math that includes a minimum of algebra I and II and geometry;
- 2 units of laboratory science;
- 2 units of social science one of which must be history;
- 3 additional academic units (foreign language is recommended);
- 4 elective units.

In addition, undergraduates may internally transfer into the BSPH program. There are no special admission requirements.

Goals of the Bachelor of Science in Public Health
Prepare students who:

1. Demonstrate proficiency in implementing the public health core responsibilities and essential services;

2. Apply public health analytics to identifying and addressing public health problems;

3. Demonstrate public health workforce readiness.

Target Population
Seniors in Virginia high schools and in the Central Appalachian Region who are interested in attending Virginia Tech and majoring in public health is the target population for the BSPH.

BSPH Curriculum
The BSPH is a 120-hour degree program that includes 42 Pathways credits, 39 Public Health Core Requirements, and 39 Credits that are open for options such as an additional approved major or minors. This structure provides the student with the flexibility to complete coursework that is centrally related to their academic/career interests. Examples of what this structure would look like in practice could be a double majoring in Public Health and Computational Modeling and Data Analytics (or vice versa); Public Health and Biological Sciences (or vice versa); Public Health and Human Development (or vice versa); Public Health and Human, Nutrition, Foods and Exercise (or vice versa); and Public Health and Engineering (or vice versa). Instead of a double major students could complete approved university minors or pathways minors as a part of the 39 credits. The structure of this degree program is congruent to both the direction of Virginia Tech in terms of a university without borders and the emphasis SCHEV has placed on degree programs that are less prescriptive and maximize student choice.

The requirements of the BSPH and a semester by semester checklist follows. Letters of support for Pathways courses, BSPH Core Courses, and the BSPH Degree can be found in Appendices A, B, and C respectively.
Bachelor of Science in Public Health (BSPH) Proposal

**Bachelor of Science in Public Health (BSPH) Curriculum**
*(Note: Course Support Letters can be found at the end of the proposal)*

### Pathways General Education Courses (Total: 42 Credits)

**Discourse (9 credits)**
- ENGL 1105 First-Year Writing (3 credits)
- ENGL 1106 First-Year Writing (3 credits)
- Choose Advanced Course (2000+) (3 credits)

**Critical Thinking in the Humanities (6 credits)**
- Choose Humanities Course (3 credits)
- Choose Humanities Course (3 credits)

**Reasoning in the Social Sciences (6 credits)**
- PSYC 1004 Introductory Psychology (3 credits)
- SOC 1004 Introductory Sociology (3 credits)

**Reasoning in the Natural Sciences (6 credits)**
- BIOL 1105 Principles of Biology (3 credits)
- BIOL 1106 Principles of Biology (3 credits)

**Quantitative and Computational Thinking (9 credits)**
- MATH 1014 Precalculus with Transcendental Functions (3 credits)
- STAT 3615 Biological Statistics (3 credits)
- Choose Advanced Course (2000+) (3 credits)

**Critique and Practice in Design and the Arts (6 credits)**
- Choose Art Course or Integrated Art/Design Course (3 credits)
- Choose Design Course or Integrated Art/Design Course (3 credits)

### Public Health Core Requirements (Total 39 Credits)

- HNFE 1004: Human Nutrition, Foods, and Exercise (3 credits)
- PHS 1514 Personal Health (3 credits)
- PHS 2004 Introduction to Public Health (3 credits)
- HNFE 2664 Behavioral Nutrition and Physical Activity (3 credits)
- PHS 3014 Introduction to Environmental Health (3 credits)
- PHS 3534 Drug Education (3 credits)
- HNFE 3634 Epidemiological Concepts of Health and Disease (3 credits)
- PHS 4044 Public Health Policy and Administration (3 credits, Junior Standing)
- PHS 4054 Concepts in One Health (3 credits, Junior Standing)
- PHS 4064 Modeling Infectious Diseases (3 credits, Junior Standing)
- PHS 4074 Practicum in Public Health (3 credits, Senior Standing)
- COMM 4324 Issues in Health Communication (3 credits, Junior Standing)
- SOC 4704 Medical Sociology (3 credits, Junior Standing)

### Additional Major/Minor/Free Electives 39 credits

**Total: 120 Credits**
<table>
<thead>
<tr>
<th>Fall Semester Freshman 2018</th>
<th>Credits</th>
<th>Spring Semester Freshman 2019</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1105 First-Year Writing (Discourse)</td>
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<td>ENGL 1106 First-Year Writing (Discourse)</td>
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<tr>
<td>PSYC 1004 Introductory Psychology (Reasoning Social Sciences)</td>
<td>3</td>
<td>SOC 1004 Introductory Sociology (Reasoning Social Sciences)</td>
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<tr>
<td>BIOL 1105 Principles of Biology (Reasoning Natural Sciences)</td>
<td>3</td>
<td>BIOL 1106 Principles of Biology (Reasoning Natural Sciences)</td>
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</tr>
<tr>
<td>MATH 1014 Pre-calculus with Transcendental Functions (Quantitative and Computational Thinking)</td>
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<td>Free Elective Course</td>
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<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>PHS 1514 Personal Health</td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td><strong>TOTAL</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Fall Semester Sophomore 2019</th>
<th>Credits</th>
<th>Spring Semester Sophomore 2020</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking in the Humanities Course (Choose Humanities Course)</td>
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<td>Critical Thinking in the Humanities Course (Choose Humanities Course)</td>
<td>3</td>
</tr>
<tr>
<td>Critical and Practice in Design and the Arts Course (Choose Art or Design Course or Art/Design Course)</td>
<td>3</td>
<td>Advanced Quantitative and Computational Thinking Course</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Discourse Class Choose Advanced Course (2000+)</td>
<td>3</td>
<td>PHS 2004 Introduction to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>HNFE 1004 Human Nutrition, Foods and Exercise</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
</tr>
<tr>
<td>HNFE 2664 Behavioral Nutrition and Physical Activity</td>
<td>3</td>
<td>Critical and Practice in Design and the Arts Course (Choose Art or Design Course or Art/Design Course)</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>15</td>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Junior 2020</th>
<th>Credits</th>
<th>Spring Semester Junior 2021</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHS 3534 Drug Education</td>
<td>3</td>
<td>STAT 3615 Biological Statistics (Quantitative and Computational Thinking)</td>
<td>3</td>
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<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>PHS 3014 Introduction to Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>PHS 4044 Public Health Policy and Administration (Junior Standing)</td>
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</tr>
<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
</tr>
<tr>
<td>HNSE 3634 Epidemiological Concepts of Health and Disease</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>15</td>
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</table>
Virginia-Maryland Regional College of Veterinary Medicine
Department of Population Health Sciences
Bachelor of Science in Public Health
Major in Public Health
For Students Graduating in Calendar Year 2022

<table>
<thead>
<tr>
<th>Fall Semester Senior 2021</th>
<th>Credits</th>
<th>Spring Semester Senior 2022</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHS 4054 Concepts in One Health(^1) (Junior Standing)</td>
<td>3</td>
<td>PHS 4064 Modeling Infectious Diseases(^1) (Junior Standing)</td>
<td>3</td>
</tr>
<tr>
<td>COMM 4324 Issues in Health Communication(^1) (Junior Standing)</td>
<td>3</td>
<td>PHS 4074 Practicum(^1) (Senior Standing)</td>
<td>3</td>
</tr>
<tr>
<td>SOC 4704 Medical Sociology(^1) (Junior Standing)</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective Course</td>
<td>3</td>
<td>Free Elective Course</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

\(^1\) Course satisfies a Public Health Core requirement (Total 39 Credits)

Note: Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the hours required for graduation. Please consult the Undergraduate Catalog for details.

Note: Some courses listed on this checksheet have prerequisites. Please consult the University or check with your advisor.

Satisfactory Progress Toward Degree

(1) After having attempted 36 semester credits (including transfer, advanced placement, and advanced standing) students must have passed at least 12 semester credits of Pathways to General Education.

(2) After having attempted 72 semester credits (including transfer, advanced placement, and advanced standing) students must have passed at least 24 semester credits of the Pathways to General Education.

After having attempted 96 semester credits (including transfer, advanced placement and advanced standing) students must have an in-major grade point average of 2.0 or higher and should have completed PHS 1514, 3004, 3014, 3534, 4044, 4054, 4064; HNFE 1004, 2664; SOC 4704; COMM 4324; STAT 3615

Courses used to calculate in-major GPA

Students must maintain a minimum of 2.0 GPA and earn a grade of C- or better in each of the following courses:

PHS 1514, 3004, 3014, 3534, 4044, 4054, 4064; HNFE 1004, 2664; SOC 4704; COMM 4324; STAT 3615
Student Retention and Continuation Plan

Each student in the program will have an advisor who will make every effort to make sure students are retained and that the student will graduate in a reasonable time period. In addition, the Program and Policy Committee in the Population Health Sciences will examine progress toward degree for each student and assist those who are not adequately progressing. For those students who transfer to a different major an exit interview will be held to ascertain why a student is transferring from the program. In general, as with the MPH degree, faculty will be highly involved to maximize the opportunity for student success.

Faculty

All faculty in the MPH program in the Department of Population Health Sciences will teach and advise in the proposed BSPH program. The faculty are all content experts and accomplished research and/or public health practitioners. The list of core faculty can be found in Appendix A.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNFE 1004</td>
<td>Human Nutrition, Foods, and Exercise</td>
<td>TBA</td>
</tr>
<tr>
<td>PHS 1514</td>
<td>Personal Health</td>
<td>Redican</td>
</tr>
<tr>
<td>PHS 2004</td>
<td>Introduction to Public Health</td>
<td>Marmagas</td>
</tr>
<tr>
<td>HNFE 2664</td>
<td>Behavioral Nutrition and Physical Activity</td>
<td>TBA</td>
</tr>
<tr>
<td>PHS 3014</td>
<td>Introduction to Environmental Health</td>
<td>Gohlke</td>
</tr>
<tr>
<td>PHS 3534</td>
<td>Drug Education</td>
<td>Redican</td>
</tr>
<tr>
<td>HNFE 3634</td>
<td>Epidemiologic Concepts of Health and Disease</td>
<td>Hungerford</td>
</tr>
<tr>
<td>PHS 4044</td>
<td>Public Health Policy and Administration</td>
<td>Redican</td>
</tr>
<tr>
<td>PHS 4054</td>
<td>Concepts in One Health</td>
<td>Pierson</td>
</tr>
<tr>
<td>PHS 4044</td>
<td>Public Health Policy and Administration</td>
<td>Redican</td>
</tr>
<tr>
<td>PHS 4064</td>
<td>Modeling Infectious Diseases</td>
<td>Abbas</td>
</tr>
<tr>
<td>PHS 4074</td>
<td>Practicum</td>
<td>Advisor</td>
</tr>
<tr>
<td>COMM 4324</td>
<td>Issues in Health Communication</td>
<td>Ivory</td>
</tr>
<tr>
<td>SOC 4704</td>
<td>Medical Sociology</td>
<td>TBA</td>
</tr>
</tbody>
</table>

Public Health Core Course Descriptions

HNFE 1004: HUMAN NUTRITION, FOODS AND EXERCISE
Scientific information applied to current concerns in foods, nutrition and exercise as it affects the nutritional health well-being of humans. (3H, 3C)

PHS 1514: PERSONAL HEALTH
Fundamental health content and theory to provide students with constructive health information necessary to meet current and future personal health needs. Special emphasis on wellness and health promotion. (3H, 3C)

PHS 2004: INTRODUCTION TO PUBLIC HEALTH
An examination of the how the public health core disciplines of biostatistics, epidemiology, health policy and administration, health behavior, and environmental health work together in addressing public health problems. Special emphasis on the public health infrastructure and role of health informatics in public health. (3H, 3C)
HNFE 2664: BEHAVIORAL NUTRITION AND PHYSICAL ACTIVITY
Introduction to behavioral theories used to design, implement and evaluate health promotion programs, and theories underlying health behavior change. Interactions between individuals, physical and social environments, interpersonal, and intrapersonal determinants of health behavior. Epidemiological evidence of benefits of health eating and physical activity. (3H, 3C)

PHS 3014: INTRODUCTION TO ENVIRONMENTAL HEALTH
This course will provide an overview of environmental health, examining local, national, and international frameworks. The course will cover environmental factors that affect human health, including major classes of chemical, biological, and physical exposures from different environmental media (air, water, food, and soil). The class will emphasize toxicology and epidemiology methodologies used at the individual (mechanistic) level and at the population level to determine environmental causes of disease and find the most appropriate prevention or control measure to minimize adverse health outcomes. (3H, 3C).

PHS 3534: DRUG EDUCATION
Interpretation of multidimensional (social, psychological and physiological) scientific data regarding drugs. The major drug categories will be covered with special emphasis on substance misuse and abuse. (3H,3C)

HNFE 3634: EPIDEMIOLOGIC CONCEPTS OF HEALTH AND DISEASE
Designed to give students in the health sciences a basic understanding of the modern concepts regarding health and disease as well as skills in organizing epidemiological data, disease investigation and surveillance. Includes a survey of terms, concepts, and principles pertinent to epidemiology. Lifestyles of populations and the relationships between lifestyles and health status are studied. II. (3H,3C)

PHS 4044: PUBLIC HEALTH POLICY AND ADMINISTRATION
This course will focus on the evolution of public health policy in United States. Public health and health care systems will be examined. Administrative concepts central to public health such as strategic planning, controlling, directing, leadership and health law will be covered in the course. (3H, 3C).

PHS 4054: CONCEPTS IN ONE HEALTH
One Health refers to the dynamic interdependence of human, animal and environmental health and provides an important perspective in examining health problems. This course focuses on the theoretical foundations of One Health, methods for assessing animal-human linkages, policies and practices related to One Health, and capacity building and public engagement. (3H, 3C).

PHS 4064: MODELING INFECTIOUS DISEASES
Mathematical modeling of infectious diseases in humans and animals. Deterministic susceptibles-infectious-recovered (SIR) and related models, estimation of reproductive number, host heterogeneities, multi-pathogen/multi-host models, spatio-temporal models, stochastic dynamics, and modeling for public health policy. (3H, 3C)

PHS 4074: PRACTICUM IN PUBLIC HEALTH
Public health theories and concepts in a work setting; comprehensive, structured experience requires student to demonstrate professional competencies while working closely with a supervisor in a public health practice setting. Pre-requisite: Senior standing and completion of 21 hours of public health core courses. (3C).
COMM 4324: ISSUES IN HEALTH COMMUNICATION
Study of issues related to the theory and practice of health communication, including interpersonal, public, organizational, political, and cultural. Senior standing required. (3H,3C).

SOC 4704: MEDICAL SOCIOLOGY

Program Administration
An undergraduate BSPH program director will be identified internally or if need be recruited. The BSPH program director will oversee all aspects of the BSPH program, from admissions to assignment of advisor to tracking student success. The program director will be the face of the program and as such will oversee all the moving parts.

Student Assessment
Having completed the program, students are expected to demonstrate the ability to:

- Describe the role of public health professionals in protecting, improving and promoting health in communities;
- Demonstrate understanding of the use of biostatistics and epidemiology in infectious and chronic disease etiology, occurrence and prevention;
- Design a public health program that utilizes core public health concepts (biostatistics, environmental health, epidemiology, health services administration, and social and behavioral sciences) in solving community problems;
- Define the role of public health in meeting community health needs;
- Prepare a public health program that reduces incidence and prevalence of diseases and / or high risk health behaviors in selected communities;
- Describe the core principles and theories used in primary, secondary and tertiary prevention;
- Define the role of the health promotion specialist as a member of the public health team;
- Prepare a comprehensive prevention program designed to address a real a public health problem;
- Describe the infectious disease process;
- Demonstrate the skill to apply public health concepts to infectious disease;
- Design a clinical and public health approach to prevention and control of infectious disease;
- Define the role of infectious disease public health specialists in recognizing, evaluating and mitigating infectious disease impacts in populations;
- Prepare a comprehensive plan to prevent and control communicable disease outbreaks.
**Student Assessment**

Student learning will be assessed by:

- Evaluation of student performance in courses by the advisor and program director;
- Evaluation of student progress towards completion of degree by the advisor and program director;
- Review of student competencies and skills in practicum development and practicum performance by the advisor and program director;
- Assessment of student competencies and skills in culminating experience, with evaluation of student abilities to design, execute, analyze and evaluate a public health problem and student abilities to propose (a) solution(s) to protect, maintain and/or enhance public health.

**Program Assessment Strategy**

The Assessment Committee for the MPH/BSPH program will monitor consistency of recruitment, program delivery, course offerings, graduation, and fulfilling the needs of Southwest Virginia and the Commonwealth.

The Assessment Committee will continuously collect data to facilitate program assessment on whether goals are being met. This is necessary to allow the steering committee to make modifications that will improve outcomes. In addition to collecting numerical data to track Benchmarks of Success (below), several groups of stakeholders will be asked for feedback.

1. Current Students. In addition to normal course evaluations, feedback from current students will be collected once a year about their experience with the program including course quality and relevance, and program administration through an anonymous survey and town hall meetings.

2. Alumni. Six months or more after graduation, alumni will be surveyed to determine their employment outcomes and to collect data on how appropriate their training was for the job they now hold.

3. Faculty. Faculty teaching in the program will be contacted yearly to provide program feedback and suggestions for improvement.

4. Community Contacts. Employers of program alumni will be contacted at least six months after hiring new graduates for data on whether the skills of our graduates are appropriate to their needs.

**Benchmarks of Success**

Criteria for success of the BSPH program includes:

- Enrollment of 400 majors by the 4th year after the first class is admitted;
- 75% or more of majors graduate in 4 years or less;
- Program retention rate is at least 80%;
- 75% of graduates obtain employment in public health or pursue graduate studies within two years of graduation;
- 75% of alumni are satisfied or very satisfied with the academic experience;
75% of employers are satisfied with graduate’s job performance after 3 years of employment.

**Expansion of an Existing Program**

This program is not an expansion of an existing program.

**Relationship to Existing Degree Programs**

The proposed BSPH program has no relationship with other undergraduate degrees at Virginia Tech.

**Collaboration or Stand Alone**

A stand-alone degree program is being proposed. As with all degrees, curricular requirements include courses from other departments. The BSPH will be managed by the Department of Population Health Sciences.

**Response to Current Needs**

Reports from a range of governmental and other agencies have described the serious shortage of public health workers and the need for additional training, particularly in areas that align with the model for the VT-shaped student (“...building strategic partnerships to bring about collective impact, to harness the power of new types of data, and to think and act in systems perspective”, [https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf](https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf)). According to the U.S. Department of Labor, the health sciences field represents the largest single industry in the U.S., accounting for 14.3 million jobs across 200 different fields. In addition, seven of the 20 fastest growing occupations are health-related, generating 3.25 million new jobs between 2008 and 2018, a 22 percent increase, or double the growth of all other industries combined. In the future, it is anticipated there will be a growing need for health promotion professionals as a result of rising incidence of chronic disease, rising health care costs driving intervention strategies, increased need for research in the area of disease prevention, the aging work force, technological advances, and increased demand for consultants.

**Employment Demand**

The Association of Schools and Programs of Public Health (ASPPH) currently estimates 250,000 more public health workers will be needed in the U.S. by 2020. The public health workforce in the U.S. is diminishing, with 23% of the current workforce (almost 110,000 workers) eligible for retirement by 2012. Nationally, existing schools of public health would have to train nearly three times the number of current graduates to meet this projected demand.

**Employment projections data for health educators and community health workers, 2014-24**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Health educators &amp; community health workers</td>
<td>--</td>
<td>115,700</td>
<td>131,300</td>
<td>13</td>
<td>15,600</td>
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Bachelor of Science in Public Health (BSPH) Proposal

<table>
<thead>
<tr>
<th>Health educators</th>
<th>21-1091</th>
<th>61,400</th>
<th>68,900</th>
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<tbody>
<tr>
<td>Community health workers</td>
<td>21-1094</td>
<td>54,300</td>
<td>62,400</td>
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<table>
<thead>
<tr>
<th>May 2015, median annual wage for health educators in top industries:</th>
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</thead>
<tbody>
<tr>
<td>Hospitals; state, local, and private</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Ambulatory health care service</td>
</tr>
<tr>
<td>Religious, grantmaking, civic, professional, and similar organizations</td>
</tr>
<tr>
<td>Social assistance</td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>May 2015, Median annual wage for community health in top industries:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals; state, local, and private</td>
</tr>
<tr>
<td>State and local government, excluding education and hospitals</td>
</tr>
<tr>
<td>Religious, grantmaking, civic, professional, and similar organizations</td>
</tr>
<tr>
<td>Ambulatory health care service</td>
</tr>
<tr>
<td>Individual and family services</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Health Educators and community Health Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median annual wages, May 2015</td>
</tr>
<tr>
<td>Health educators</td>
</tr>
<tr>
<td>Health educators and community health workers</td>
</tr>
<tr>
<td>Counselors, social workers, and other community service specialists</td>
</tr>
<tr>
<td>Community Health workers</td>
</tr>
<tr>
<td>Total, all occupations</td>
</tr>
</tbody>
</table>


Student Demand

The Department of Population Health Sciences routinely receives requests from undergraduate students to be allowed to enroll in one or more of the MPH courses. If space was available in the class and the student was a senior with a 3.0 GPA or above they were generally allowed to take the course. During Spring, 2014, a special section of PHS 5004 Fundamentals of Public Health was offered as an undergraduate special study and 73 undergraduate students enrolled in the class. There was no solicitation for this course – 73 students found it listed in the timetable and enrolled.

In late Spring, 2016 a survey was sent to university studies students that summarized what a BSPH program would look like and if the student would be interested. One hundred and forty-four students
responded that they would be interested in pursuing a BSPH if it were offered. No email blasts were used to increase response rate.

It is clear that the interest in the BSPH is keen and enrollment projections are realistic. Further, the degree with complement the other health-related undergraduate majors currently offered.
### Projected Enrollment

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4 Target Year (2-year institutions)</th>
<th>Year 5 Target Year (4-year institutions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-2019</td>
<td>2019-2020</td>
<td>2020-2021</td>
<td>HDCT 300 FTES</td>
<td>HDCT 400 FTES</td>
</tr>
<tr>
<td>100</td>
<td>200</td>
<td>300</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: VCCS institutions should only complete Years 1 through 4. Graduation rates must be included in Year 4, Target year.

**Definitions:**
- HDCT—Fall headcount enrollment
- FTES—annual full-time equated student enrollment
- GRADS—annual number of graduates of the proposed program

**Assumptions**

Faculty in the Department of Population Health Sciences are frequently asked by undergraduate students to enroll in MPH graduate courses. This is a good indication that public health courses albeit graduate are highly sought after by Virginia Tech students. Further, with the expansion of health science related initiatives at the university an undergraduate BSPH degree would interface very smoothly with the other health science initiatives.

**Duplication**

The proposed BSPH program does not duplicate any already existing program at Virginia Tech. There is no major that is framed around the public health core responsibilities and essential services and CEPH accreditation criteria.

**Library**

The library holdings currently serve the MPH program. These resources will be used by BSPH students as well.

**Projected Resource Needs for the BSPH**

Resource needs relating to instructional and advising personnel, space and funding will be met in part through expanded use of existing resources available in the College of Veterinary Medicine and the University. As described above, faculty currently assigned teaching and advising functions in the MPH program will provide instructional support for the public health core requirements of the BSPH program. In regard to instructional space, the CVM expects to complete a facilities remodeling project by the end of the spring semester in 2017 that involves construction of a scale-up teaching space accommodating 65 students. This facility, together with availability of the DVM classrooms in the late afternoon and evenings and anticipated creation of instructional spaces at the Health Sciences and Technology – 1 initiative in Roanoke, are expected to meet the space needs to deliver the public health core. The pathways general education enrollments will need to be accommodated in other colleges and through the use of general classroom spaces on campus.

It is clear, however, that while existing resources will contribute significantly to meeting the needs of the program, they will not be sufficient to support anticipated enrollment of approximately 400 students. Recognizing that accurate assessment of resource requirements will evolve in conjunction
with program development, the College at this time estimates that the following additional resources will need to be committed to the program to assure its success:

**New faculty positions:**
- 1 tenure-track epidemiology position in the Data Analytics and Decision Sciences (DADS) destination area has already been committed by the Provost.
- Another tenure-track position in DADS committed by the Provost in the next round of position allocations will be committed to public health.
- Full implementation of the program is expected to need two faculty positions in addition to the two destination area positions indicated above. While these will have significant teaching assignments, assignment of at least 30% of each appointment to research and scholarship will meet the College standard for these being tenure-track appointments. It is anticipated that BSPH tuition revenue will support these appointments.

**Graduate Teaching Assistantships:**
- GTAs currently funded in the College will be assigned instructional duties in the BSPH program.

**University staff:**
- One staff position will be needed to provide administrative support and advising coordination. It is anticipated that BSPH tuition revenue will support this appointment.
REFERENCES


Institute of Medicine. For the Public's Health. April, 2012.


Appendix A
BSPH Core Faculty

Kaja M. Abbas, PhD, Computer Science, 2006, University of North Texas, Assistant Professor of Infectious Diseases in Public Health

Andrea Bertke, PhD, 2007, Uniformed Services University of the Health Sciences, Assistant Professor of Infectious Diseases in Public Health

Julia M. Gohlke, PhD, Environmental Health, 1993, University of Washington, Seattle, WA, Assistant Professor of Public Health

Kathryn W. Hosig, PhD, Nutrition, 1992, Purdue University, Associate Professor of Public Health

Laura Hungerford, DVM, MPH, PhD, 1989, University of Illinois, Professor of Epidemiology.

Susan West Marmagas, MPH, 1995, University of California at Berkeley, Associate Professor of Practice

Frank William Pierson, DVM, 1984, Professor, Biosecurity and Infection Control / Clinical Specialist, Poultry Medicine.

Kerry J. Redican, PhD, 1976, University of Illinois at Champaign-Urbana, Professor of Public Health.

Sophie Wenzel, 1998, MPH, Emory University, Lecturer in Public Health
Appendix B

Course Support Letters

Kerry,

Biological Sciences supports inclusion of BIOL 1105, 1106 Principles of Biology in the proposed Bachelor of Science in Public Health (BSPH) curriculum. Please be aware that our ability to offer seats in these classes is dependent on continued enrollment support funding or any future funding mechanism that replaces enrollment support.

Rich

Richard A. Walker  
Associate Department Head and Associate Professor  
Biological Sciences  
2089 Derring Hall, 1405 Perry Street  
Virginia Tech, Blacksburg, VA 24061-0406  
540-231-3803 (phone) 540-231-9307 (fax) rawalker@vt.edu

Hi Kerry:

We are delighted that you will be requiring ENGL 1105 and 1106 on your checksheet.

Please know that we offer three courses that might be of interest to your students as electives: ENGL3154 Literature, Medicine, and Culture and ENGL4314 Narrative Medicine, and ENGL4824 Science Writing. Each will probably also go through as Pathways courses, in both discourse and humanities.

Cheers,

BH

Bernice L. Hausman  
Chair, Department of English, Virginia Tech  
Edward S. Diggs Professor in the Humanities  
Professor, Virginia Tech Carilion School of Medicine  
540-231-8466  
bhausman@vt.edu
Dear Kerry,

Thank you for writing to alert me to the anticipated proposal of a new Bachelor of Science in Public Health. The degree requirements include Math 1014, and you expect 100 students per year in your new program. As long as the new budget model provides resources associated with the additional student credit hours, the Math Department will be able to support this new requirement.

As far as your assumption that Math 1014 will satisfy Pathways quant/comp requirements, all I can say at this point is that I don’t know. In spite of my efforts and the efforts of many colleagues in the Math Department and the College of Science, I have very little understanding of what changes are required to make a CLE Area 5 course a Pathways quant/comp course. Thank you for mentioning that you hope to use Math 1014 to satisfy Pathways requirements. Can you tell me what topics in Math 1014 are essential to your major and what topics are not? This information could help us as we try to figure out how to include Pathways learning objectives.

Finally I note that, under current university Advanced Standing policy, students who have certain admissions characteristics and who get a good enough grade in Math 1025 can get credit for Math 1014 without taking the Math 1014. This observation suggests a potentially efficient way for your students to collect Pathways quant/comp credit. The Math Department does not set or administer the university’s Advanced Standing policy. Without knowing how Stat 3604 will fit in Pathways requirements, I cannot guarantee that this suggestion will actually help students.

Peter Haskell
Professor and Chair
Department of Mathematics (MC 0123)
McBryde 460
Virginia Tech
225 Stanger Street
Blacksburg, VA 24061
540-231-6536
fax: 540-231-5960
phaskell@math.vt.edu

Hi Kerry,

We support the inclusion of PSYC 1004 as a required course in the proposed BSPH degree.

Best,

Bob

Robert S. Stephens, Ph.D.
Professor & Department Chair
Department of Psychology
Virginia Tech
Good afternoon. Indeed, this is fine. We are pleased to have the course included in the Bachelor's degree in Public Health. I anticipate we may well offer a couple more health classes in the future such as health communication campaigns, etc.

Have a great week.

All the best,

Bob

Robert E. Denton, Jr. Ph.D.
W. Thomas Rice Chair
Department of Marketing
Pamplin College of Business
Professor and Department Head
Department of Communication
College of Liberal Arts & Human Sciences
115 Shanks Hall MC 0311
181 Turner Street NW
Virginia Tech
Blacksburg, VA 24061

540 231-7166 office
rdenton@vt.edu

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Hulver, Matthew <hulvermw@vt.edu>

Hi Kerry,

We approve BSPH students enrolling in HNFE 1004, HNFE 2664, and HNFE 3634. I intended to follow up with you last week about HNFE 2664 from the recent HNFE curriculum committee meeting. They had one additional edit to the learning indicators so Renee will be making that change but then working to finish the general education proposal so it all goes through at one time. The committee is supportive of HNFE 2664 being on the checksheet for the PHS undergraduate degree proposal and would like to revisit cross-listing once the degree is approved. They would like additional information on whether the course will be co-taught or if it will be taught by each department in different terms, and how content would be consistent if taught by departments in different terms. Perhaps we can meet in the next week or two to talk through those details? Thank you. Matt
Dear Kerry,

The department of sociology is pleased to have SOC 1004 (Introductory Sociology) and SOC 4074 (Medical Sociology) included in your new degree program.

Best,

John

John Ryan
Professor and Chair
Dept. of Sociology
Virginia Tech
560 McBryde Hall
Blacksburg, VA 24060
540-231-9396
http://liberalarts.vt.edu/academics/majors-and-minors/sociology-major.html

Dear Kerry,

The Department of Statistics is pleased to support the inclusion of STAT 3615 in the proposed Bachelor of Science in Public Health degree (subject to the usual caveat on the availability of resources, of course). We believe this degree is an exciting addition to Virginia Tech’s burgeoning health and medical educational and research capabilities.

Sincerely,

Ron

R.D. Fricker, Jr., Ph.D.
Professor and Head
Department of Statistics
Hutcheson Hall, room 406A
250 Drillfield Drive
Blacksburg, VA 24061
540-231-7754 (office)
831-869-8414 (cell)
rf@vt.edu
Appendix C

BSPH Degree Support Letters
In 1975, the university received a significant bequest from the estate of Mr. John Lee Pratt of Stafford County, following his death on December 20, 1975. The bequest was divided equally into two distinct parts, one to support Animal Nutrition and one to support the College of Engineering. According to the will, the bequest for Animal Nutrition was to be used to promote the study of animal nutrition by supplementing salaries, providing equipment and materials to be used for experiments in feeding and in the preparation of feeds for livestock and poultry, and publishing and disseminating the research results of the studies. The will provided that the bequest for the College of Engineering should be used to support research and scholarships.

Distributions of the Pratt Estate were received in several installments: $9,561,819 in 1975, $1,330,000 in 1977, $47,000 in 1979, and $30,164 in 1981, for a total of $10,968,983. Over the years, the Pratt endowment has grown to $46.49 million, as of June 30, 2017. The following paragraphs summarize some of the major accomplishments of the College of Engineering and the Animal Nutrition Programs that are directly tied to the funding provided by the Pratt estate.

When the Pratt Endowment was originally established, the College of Engineering was in the early stages of becoming established as a nationally recognized leader in engineering education. The Pratt Endowment has played a significant role over the years in allowing the College to enrich its pool of students and to offer additional international study opportunities to students and faculty.

The expenditure of income funds from the Pratt Endowment provides an unusual opportunity to support an animal nutrition program of high quality. Use of these endowment earnings has concentrated on enhancing research and educational opportunities beyond what departments could do with state and federal funding. The main funding strategy remains with strong support for Ph.D. training, direct research support, scientific equipment, and visiting professors that stimulate and inspire the faculty and students engaged in nutrition research.

**RECOMMENDATION:**

That the 2016-17 Pratt Funds Activity Statements for Animal Nutrition and the College of Engineering be approved.

November 6, 2017
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ENGINEERING

**Income**

Balance, July 1, 2016 $ 55,463
Endowment Income for 2016-17 958,801

Total Available $1,014,264

**Expenditures***

Undergraduate Scholarships $488,044
Undergraduate International Scholarships 60,000
Graduate International Scholarships 29,496
Graduate Research Scholarships 87,600
Graduate Fellowships 135,137
Graduate Tuition Scholarships 37,864
Graduate Recruitment for Research Programs 123,000

Total Expenditures $961,141

Balance at June 30, 2017 to be carried to 2017-18 $ 53,123

*See Attachment A for Engineering programs supported by Pratt Funds.*
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ANIMAL NUTRITION

Income

Balance, July 1, 2016 $ (13,699)
Endowment Income for 2016-17 930,498

Total Available $916,799

Expenditures*

Graduate Student Scholars $ 453,848
Nutrition Program Support Personnel 164,997
Undergraduate Scholarships & Research 158,150
Scientific Equipment & Supplies 33,776
Visiting Scholars & Seminars 38,974
Research Publications 0

Total Expenditures $849,745

Balance at June 30, 2017 to be carried to 2017-18 $ 67,054

*See Attachment B for Animal Nutrition Programs supported by Pratt Funds.
PRATT FUNDS: College of Engineering

The Pratt Endowment enriches the College of Engineering in many ways, adding to Virginia Tech's reputation. In fiscal year 2016-2017, Pratt Funds supported the following engineering programs: undergraduate scholarships, undergraduate and graduate international scholarships, graduate research assistantships, graduate fellowships and graduate tuition scholarships, and graduate recruitment for the College's research programs.

**Undergraduate Scholarships**  
Spent: $488,044

Pratt Funds allow the College to offer Dean's Scholar scholarships to entering freshmen. These scholarships provide a four-year, $6,000 per academic year continuing commitment to each recipient provided at least a 3.5 grade point average is maintained. In fiscal year 2016-2017, Pratt Funds provided $6,000 scholarships to 67 students. An additional 70 students received scholarships ranging from $1,000 to $5,000.

**Undergraduate International Scholarships**  
Spent: $60,000

Pratt funds provided scholarships to 60 undergraduate students participating in international experiences during the 2016-2017 academic year. Travel scholarships were provided to students to travel to countries in Europe and Africa, China, Nepal, Iceland, and New Zealand for conducting research and participating in conferences. Examples of research activities include participation in Green Program: Renewable Energy and Sustainability, Race and Reconciliation program in South Africa, and study abroad programs in various countries.

**Graduate International Scholarships**  
Spent: $29,496

Pratt funds supported 15 graduate students undertaking a variety of international experiences. Examples of the international experiences include participation in dual degree programs, conferences, research, study of bridges in Switzerland and Germany, and study abroad programs.

**Graduate Research Scholarships**  
Spent: $87,600

The College used Pratt funding to support graduate research assistants in the Institute for Critical Technology and Applied Science's (ICTAS) Doctoral Scholars Program. This program is a multi-disciplinary research effort coordinated by ICTAS, with significant contributions from participating departments, colleges, and the Graduate School. Students receive a graduate research scholarship of $32,000 per year for a maximum of four years. The program supported eight students in fiscal year 2016-17.
Graduate Fellowships and Graduate Tuition Scholarships  
Spent: $173,001

**Graduate Fellowships**
Each engineering department receives a portion of Pratt funds to use for graduate fellowships. In fiscal year 2016-2017, 55 students received Pratt Fellowships ranging from $36/month to $550/month. These fellowships supplement existing assistantships, allowing the College to offer competitive compensation packages to graduate students being recruited by other top engineering colleges.

*Spent: $135,137*

**Graduate Tuition Scholarships**
Engineering departments have the option of using Pratt Fellowship funding for tuition remission scholarships for graduate students. In fiscal year 2016-2017, departments provided partial or complete tuition for six graduate students from Pratt funds.

*Spent: $37,864*

**Graduate Recruitment for Research Programs**  
Spent: $123,000

The College’s departments readily acknowledge that the use of Pratt Funds to support visiting prospective graduate students substantially increases our enrollment of top-quality graduate students and is critical to the College’s research programs. In fiscal year 2016-2017, this funding supported the travel expenditures for over 180 prospective graduate students.
PRATT FUNDS: Animal Nutrition

The John Lee Pratt Endowment has been instrumental in enhancing the quality of the university’s animal nutrition programs at Virginia Tech. The Pratt Endowment objective as specified in John Lee Pratt’s bequest is to “promote the study of animal nutrition, provide equipment and materials for feeding experiments and the preparation of livestock and poultry feeds, and to publish and disseminate the practical results from this research.” In an effort to better meet the original goals of the Endowment in enhancing Animal Nutrition programs and attract high quality graduate scholars, the College of Agriculture and Life Sciences Pratt Endowment Executive Council modified the process of awarding the Pratt funds in 2011. The process seeks proposals that enhance faculty programs in Animal Nutrition by aiding in the establishment of new interdisciplinary and externally-funded research, augmenting established funded research, or bridging gaps in projects between periods of extramural funding. Graduate student and visiting scholar support is a major component of these projects. In 2017 we funded 14 active projects from two proposal cycles. The programs of 14 faculty members located in seven different departments are supported through these 14 projects. A total of 12 graduate students are funded by these projects.

Direct support of stipends and operations and enhancement of graduate programs through equipment purchases and visiting scientists are the primary expenditures. The total net expenditure for FY17 was $849,745 for the continuing program. The main categories of expenditures were as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Student Scholars (PhD &amp; MS)</td>
<td>53.4%</td>
</tr>
<tr>
<td>Nutrition Program Support Personnel</td>
<td>19.4%</td>
</tr>
<tr>
<td>Undergraduate Program Scholarships &amp; Research</td>
<td>18.6%</td>
</tr>
<tr>
<td>Scientific Equipment and Supplies</td>
<td>4.0%</td>
</tr>
<tr>
<td>Visiting Scholars and Seminars</td>
<td>4.6%</td>
</tr>
<tr>
<td>Research Publications</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Graduate Student Scholars**

Spent: $453,848

The Pratt program has now matured and currently 14 scholars are enrolled in the program. These students are from several states and countries and are selected based on excellence in their academic and research accomplishments. They receive a Ph.D. or M.S stipend plus payment of all required tuition and fees. Additionally, each MS or PhD candidate receives $2,500, to be used for operational expenses of their research programs.

**Nutritional Program Support Personnel**

Spent: $164,997

Research technicians in the field of animal nutrition are a key component of Pratt funding. The Pratt funds provide partial support of three technicians in animal and dairy
attachment B

Presentation Date: November 6, 2017

sciences. These technicians are essential in assisting with the necessary sample preparation and data collection for research performed by the scientists engaged in animal nutrition projects in proteomics, ruminant nutrition, and nutrient management.

**Undergraduate Program Scholarships and Research**

Spent: $158,150

Over 50 outstanding freshmen students were awarded $1,000 merit scholarships, each, upon entering departments which offer programs in animal nutrition. In addition, 10 Pratt Senior Animal Nutrition Research Scholars received scholarships ($1,500 each) and research support ($1,000 each). This exciting program allows outstanding seniors to participate in undergraduate research programs working directly with a faculty researcher. They report their research results at a symposium each spring. Many of these students pursue graduate programs in animal nutrition.

We continued funding for the Pratt Study Abroad Initiative, which is made available to students planning a study abroad experience that involves study or research related to animal nutrition. This year’s recipients participated in faculty-led study abroad classes. During winter session 2016, $2,000 was awarded for travel to New Zealand where recipients toured progressive dairy and venison farms and businesses. In summer 2016, $12,000 was awarded for travel to the United Kingdom where recipients studied at three European colleges and toured livestock operations.

**Scientific Equipment and Supplies**

Spent: $33,776

Expenditures for equipment and research space renovations continued to emphasize the needs of programs focusing on animal nutrition at various units at the university. The small equipment (<$10,000) needs were implemented based on the desire of the faculty to achieve the goals of the proposed projects. We were unable to issue a request for proposals for large equipment this fiscal year due to the large number of graduate students that were being funded by Pratt awards.

**Visiting Scholars and Seminars**

Spent: $38,974

An important stimulus for research programs in animal nutrition is the presence of visiting scientists in seminars, in the classroom, and in the laboratory. A nutrition seminar is regularly supported by Pratt to bring in outstanding speakers from other institutions and industry. Other scientists visit for periods of time ranging from a few days to several months. Visitors supported by Pratt present seminars for the university community and interact with animal nutrition faculty and students in formal and informal instructional settings including laboratories. Visiting scientists/scholars expenditures are higher than the amounts used in recent years due to the new process of funding proposals as some of these proposals include visiting scientists as a part of their research plan.

**Research Publications**

Spent: $0

The program still allows for paying the publication costs of research journal articles resulting from student dissertations. Very few faculty members, however, request the
payment of their publication costs from Pratt funds, mainly because they either include the publication costs in their external grants or many journals have discontinued their charging policy for publication of research articles. The Pratt funded faculty, are however, very productive and have published over 120 publications on animal nutrition over the past five years.

**Summary**

The Pratt funds continue to have significant impacts on the Virginia Tech programs in animal nutrition. The process of awarding the Pratt Funds to faculty, including the peer review process established for selection of proposals based on their scientific merits and potential to enhance animal nutrition programs, has greatly enhanced the quality of the programs and is enabling the faculty to become more competitive for external funding at the national level.
RESOLUTION FOR EXCLUSION OF CERTAIN OFFICERS/DIRECTORS

WHEREAS, Virginia Polytechnic Institute and State University ("Virginia Tech") was determined by the Department of Defense (DoD) to be a facility authorized to be eligible for access to classified information or award of classified contracts in 1960 and years following, with the most recent authorization in 2011; and

WHEREAS, in accordance with the National Industry Security Program Operating Manual (NISPOM), Cognizant Security Agencies (CSAs) require certain principal officers, directors, partners, regents, or trustees, and those occupying similar positions at institutions of higher education meet the personnel security clearance requirements established for the level of the institution's facility security clearance or be formally excluded; and

WHEREAS, the NISPOM permits the exclusion from the personnel clearance requirements of said principal officers et al. on the basis that these cited individuals shall not require, shall not have, and can be effectively excluded from access to all classified information disclosed to Virginia Tech, and do not occupy positions that would enable them to affect adversely corporate policies or practices in the performance of classified contracts, as determined by a CSA;

NOW, THEREFORE, BE IT DECLARED that the Board of Visitors hereby formally appoints a managerial group with the authority and responsibility for the negotiation, execution, and administration of classified contracts ("Key Management Personnel"), consisting of the following principal officers within Virginia Tech: President, University Legal Counsel, Chief Contracting Officer, Vice President for Research and Innovation, Senior Research Compliance Officer, Senior Contracts Officer, Facility Security Officer, and Insider Threat Program Senior Official (specified by name in Attachment A); and

BE IT RESOLVED that the President and the said managerial group at the present time do possess, the required security clearance; and

BE IT RESOLVED FURTHER that in the future, when a CSA determines that additional Virginia Tech officials must be added to said managerial group and be granted personnel clearances or excluded from classified access pursuant to the NISPOM, such requirements shall be made and approved by the Key Management Personnel, and not the Board of Visitors, unless approval by the Board of Visitors is formally required by the CSA; and

BE IT RESOLVED FURTHER, that the appended list of all members of the Board of Visitors and certain University Principal Officers (specified by name in Attachment B) shall not require, shall not have, and can be effectively excluded from access to all classified information in the possession of Virginia Tech, and do not occupy a position that would enable them to affect adversely Virginia Tech policies or practices in the performance of classified contracts. A copy of this resolution shall be provided to CSAs as required by the NISPOM.

RECOMMENDATION:

That this resolution be adopted.

November 6, 2017
ATTACHMENT A:

List of Key Management Personnel by name who must be granted personnel clearances or excluded from classified access pursuant to the NISPOM per Board of Visitors Resolution, April 2, 2017.

President Dr. Timothy Sands
University Legal Counsel Ms. Kay K. Heidbreder, Esq.
Chief Contracting Officer Mr. M. Dwight Shelton, Jr.
Vice President for Research & Innovation Dr. Theresa Mayer
Senior Research Compliance Officer and Senior Contracts Officer Ms. Linda R. Bucy
Facility Security Officer and Insider Threat Program Senior Official Mr. David A. Brady
ATTACHMENT B:

List of members of the Virginia Tech Board of Visitors excluded per Board of Visitors Resolution, November 6, 2017.

Ms. Greta J. Harris  
Mr. Charles T. “C.T.” Hill  
Ms. Anna L. James  
Mr. Mehmood S. Kazmi  
Ms. Letitia A. Long  
Mr. Robert J. Mills Jr.  
Mr. L. Chris “Chris” Petersen  
Ms. Deborah “Debbie” Leigh Martin Petrine (Vice-Rector)  
Mr. Michael “Mike” J. Quillen  
Rev. Wayne H. Robinson  
Mr. Mehul P. Sanghani  
Mr. Dennis H. Treacy (Rector)  
Mr. Horacio A. Valeiras  
Mr. Jeff E. Veatch

List of University Principal Officers to be excluded per Board of Visitors Resolution, April 2, 2017.

Executive Vice President and Provost       Dr. Thanassis Rikakis
WHEREAS, the Board of Visitors of the Virginia Polytechnic Institute and State University ("Virginia Tech") approved a resolution on November 18, 2013 authorizing the transfer of approximately 26.361 acres in fee simple, 17.920 acres in a permanent easement for the Runway Protection Zone, and 3.549 acres for a stormwater easement to the Virginia Tech/Montgomery Regional Airport Authority (the “Airport Authority”) in order to allow for the expansion of the Virginia Tech/Montgomery Executive Airport; and

WHEREAS, the Board of Visitors approved a resolution on November 10, 2014 to clarify and affirm Article VI Reversion Clause as stated in the Agreement For Purchase And Sale of Real Estate dated November 2013; and

WHEREAS, Virginia Tech by Deed of Easement dated March 6, 2015 and recorded in the Clerk’s Office of the Circuit Court of Montgomery County, Virginia, at Instrument Number 2015001468 granted a stormwater easement on a 3.549 acres area as more particularly identified on a survey recorded in the said Clerk’s Office at Instrument Number 2015001466 and as shown on the attached drawing entitled “Stormwater Easement Near Lane Substation;” and

WHEREAS, the March 6, 2015 Deed of Easement states in part that Virginia Tech may use the 3.549 acres stormwater easement area for any purpose not inconsistent with the rights granted in the easement, and that Virginia Tech may relocate for Virginia Tech’s convenience any of the Airport Authority’s facilities installed and used pursuant to the easement; and

WHEREAS, the Board of Visitors approved a resolution on April 28, 2015 for the Lane Substation expansion; and

WHEREAS, the Lane Substation expansion encroaches in part into the 3.549 acres stormwater easement area by approximately thirty feet (30’) in width and approximately one hundred eighty feet (180’) in length as more particularly shown on the attached drawing; and

WHEREAS, a portion of the Virginia Tech/Montgomery Executive Airport expansion project under construction by the Airport Authority requires an improved and more directed flow of stormwater in the area of the Lane Substation through the creation of a stormwater channel or ditch. The majority of which channel/ditch will be located within the 3.549 acres stormwater easement area. However, a portion of the stormwater channel/ditch will need to be located outside the 3.549 acres stormwater easement area and will connect to an existing Virginia Tech stormwater pipe on other Virginia Tech land. The portion of the stormwater channel/ditch located outside the 3.549 acres stormwater
WHEREAS, Virginia Tech and the Airport Authority desire to acknowledge and agree to the encroachment, in part, of the Lane Substation expansion into the stormwater easement area, and to improve and direct the stormwater flow into the 3.549 acres stormwater easement area through a stormwater channel/ditch;

NOW, THEREFORE, BE IT RESOLVED, that the Vice President for Operations, his successors and/or assigns, be authorized to execute an easement and/or an amendment to the existing March 6, 2015 Deed of Easement, as appropriate, to acknowledge and agree to the partial encroachment of the Lane Substation expansion into the stormwater easement area, and to allow for the creation and maintenance of a stormwater channel/ditch in accordance with applicable Virginia Tech procedures as permitted by the Higher Education Restructuring Act and Management Agreement with the Commonwealth of Virginia, and the Code of Virginia (1950), as amended.

RECOMMENDATION:

That the above resolution authorizing the Vice President for Operations, his successors and/or assigns, to create an easement or to amend the existing March 6, 2015 Deed of Easement, as appropriate, to acknowledge and agree to the partial encroachment of the Lane Substation expansion into the stormwater easement area, and to allow for the creation and maintenance of a stormwater channel/ditch be approved.

November 5, 2017
Review of Audit Charters
(for information only)

- Compliance, Audit, and Risk Committee Charter
- Charter for the Office of Audit, Risk, and Compliance
1. **Purpose**

This policy outlines the policies and procedures covering the Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

   It is the policy of the Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness internal control environment.

   The Office of Audit, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management process, and oversees the institutional compliance program. The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

   1. *Audit*: Provide independent, objective assurance and advisory activity designed to add value and improve university operations. It helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

   2. *Risk Management*: Provide oversight of the enterprise risk management (ERM) program by creating and maintain the framework to effectively identify, assess, and manage risk.

   3. *Compliance*: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

2.1 **Scope of the Office of Audit, Risk, and Compliance**

   The scope of OARC work is to determine whether Virginia Tech’s risk management, internal controls, compliance activities and governance processes, as designed and represented by management, is adequate and functioning in a manner to ensure:
• Programs, plans, and strategic objectives are achieved.
• Risks are appropriately identified, managed, and considered in institutional decision making.
• Significant financial, managerial and operating information is accurate, reliable and timely.
• Compliance with policies, procedures, standards, laws, and regulations.
• Measures taken to foster continuous improvement in control processes.
• Resources are being acquired, managed, and protected in an economical, efficient, and effective manner.

2.2 Independence and Objectivity

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Audit, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Compliance, Audit, and Risk Committee of the Board of Visitors.

All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

2.3 Authority

OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

2.4 Auditing Standards

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

2.5 Systems Planning and Development

OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:

• Reasonable and adequate internal controls exist.
• Systems or procedural documentation is complete and appropriate.
• An adequate audit trail exists.
OARC’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

### 2.6 Responsibilities of the Executive Director of Audit, Risk, and Compliance

The Executive Director of Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of OARC to ensure that the work fulfills the purposes and responsibilities established in this policy statement. The Executive Director of Audit, Risk, and Compliance is specifically charged with the following responsibilities:

- Coordinating all auditing activities to provide a central source of information for management and the Compliance, Audit, and Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
- Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
- Establishing written policies and procedures for OARC and directing its technical and administrative functions.
- Developing, submitting for approval, and executing comprehensive risk-based annual audit plans to carry out departmental responsibilities.
- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
- Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
- Issuing an annual summary report of activities to the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
- Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
- Communicating directly with the Compliance, Audit, and Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
- Performing sufficient tests and examinations to determine and report to management, the Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective of recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

### 2.7 Audit Reports

OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Audit, Risk, and Compliance, depending upon the nature and
conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Compliance, Audit, and Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Audit, Risk, and Compliance may decide, with the approval of the Chair of the Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.8 Responsibility for Corrective Action

Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.9 Coordination with External Auditing Agencies

The Executive Director of Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.10 Special Projects

The Executive Director of Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Compliance, Audit, and Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures

Principal guidance and direction on how the OARC accomplishes its mission and responsibilities is provided to the audit staff through an office procedures manual. The manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The manual also provides a resource to external parties such as the Compliance, Audit, and Risk Committee of the Board of Visitors, senior management, external auditors, and quality assurance parties.
4. **Definitions**

**Abuse**
Excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Extravagant or excessive use as to abuse one’s position or authority. Abuse can occur in financial or nonfinancial settings.

**Add Value**
The internal audit function adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

**Advisory Services**
Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

**Assurance**
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

**Charter**
The charter is a formal document that defines the OARC’s purpose, authority, and responsibility. The charter establishes the office’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

**Code of Ethics**
The Code of Ethics of The Institute of Internal Auditors are principles relevant to the profession and practice of internal auditing, and rules of conduct that describe behavior expected of internal auditors. The purpose of the Code of Ethics is to promote an ethical culture in the global profession of internal auditing.

**Compliance**
Adherence to policies, plans, procedures, laws, regulations, contracts, or other requirements.

**Conflict of Interest**
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest would prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

**Control**
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.

**Control Environment**
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).

**Control Processes**
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

**Executive Director of Audit, Risk, and Compliance**

The individual that serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the IIA’s Definition of Internal Auditing, the Core Principles, the Code of Ethics, and the Standards.

**Engagement**

A specific internal audit assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

**Enterprise Risk Management**

A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

**Fraud**

The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

**Governance**

The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

**Independence**

The freedom from conditions that threaten the ability of the internal audit function to carry out internal audit responsibilities in an unbiased manner.

**Internal Audit Function**

The department, division, team of advisors, or other practitioner(s) that provides independent, objective assurance and advisory services designed to add value and improve an organization’s operations.

**International Professional Practices Framework**

The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories – (1) mandatory and (2) strongly recommended.

**Objectivity**

An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they believe in their work product and that no quality compromises are made. Objectivity requires that internal auditors do not subordinate their judgment on audit matters to others.
Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular audit. The scope can be specified by defining the physical location of the audit, the organizational units that will be examined, the processes and activities that will be included, and the time period that will be covered.

Significance
The relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors, such as magnitude, nature, effect, relevance, and impact. Professional judgment assists internal auditors when evaluating the significance of matters within the context of the relevant objectives.

Standards
A professional pronouncement that delineates the requirements for performing a broad range of internal audit activities, and for evaluating internal audit performance.

Waste
The intentional or unintentional, thoughtless or careless expenditure, consumption, mismanagement, use, or squandering of Commonwealth resources to the detriment or potential detriment of the Commonwealth. Waste also includes incurring unnecessary costs due to inefficient or ineffective practices, systems, or controls.

5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), and the Definition of Internal Auditing, revised in 2016 and effective 2017.

6. Approval and Revisions
- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.

- Revision 1
  Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
  Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.
- Revision 2
  Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.

  Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

- Annual review, November 5, 1998, by Office of the Executive Vice President. No revisions.

- Revision 3
  Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.

  Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.

  Approved March 29, 2004 by the Finance and Audit Committee of the Board of Visitors.

- Revision 4
  Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.

  Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.

  Approved March 14, 2005 by the Finance and Audit Committee of the Board of Visitors.

- Revision 5
  April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

- Revision 6
  Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”

  Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.

  Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.

  Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.

  Approved November 7, 2011 by the university President, Charles W. Steger.

  Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

- Revision 7
  Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

  Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”

  Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.
• Revision 8
  Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
1. **Purpose**

This policy outlines the policies and procedures covering the University's Internal Office of Audit Function, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

It is the policy of the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness internal control environment.

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1. Purpose
2. Policy
   1. Scope of Internal Audit Activities
   2. Organizational Structure
   3. Independence and Objectivity
   4. Authority
   5. Auditing Standards
   6. Systems Planning and Development
   7. Responsibilities of the Director of Internal Audit
   8. Audit Reports
   9. Responsibility for Corrective Action
   10. Coordination with External Auditing Agencies
   11. Special Projects
3. Procedures
4. Definitions
5. References
6. Approval and Revisions
The Finance and Office of Audit Committee of the Board of Visitors, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management adoption process, and oversees the following definition of internal auditing (from the Institute of Internal Auditors’ International Professional Practices Framework) as the purpose of the internal audit function: Internal auditing institutional compliance program. The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit:** Provide independent, objective assurance and advisory activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. **Risk Management:** Provide oversight of the enterprise risk management (ERM) program by creating and maintain the framework to effectively identify, assess, and manage risk.

3. **Compliance:** Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

### 2.1 Scope of Internal the Office of Audit Activities, Risk, and Compliance

The internal audit function will provide assurance engagements encompassing reviews of all university operations and activities to appraise:

The accuracy, reliability, and timeliness of significant financial, managerial, and operating information and the adequacy of the internal controls employed over the compilation and reporting of such information is accurate, reliable and timely.

- Programs, plans, and strategic objectives are achieved.
- Risks are appropriately identified, managed, and considered in institutional decision making.
- Significant financial, managerial, and operating information and the adequacy of the internal controls employed over the compilation and reporting of such information is accurate, reliable and timely.
- Compliance with policies, procedures, standards, laws, and regulations.
- Whether risks are appropriately identified and managed.
- Measures taken to safeguard assets, including tests of existence and ownership.
- The adequacy, propriety, and cost-effectiveness of accounting, financial, and other controls throughout the university, as well as compliance therewith.
- Measures taken to foster continuous improvement in control processes.
- Whether university resources are being acquired, managed, and protected in an economical, efficient, and effective manner.
- The achievement of programs, plans, and objectives.

### 2.2 Organizational Structure

The Finance and Audit Committee of the Board of Visitors has the responsibility to oversee and evaluate the internal audit function of the university. Accordingly, the Director of Internal Audit reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Director of Internal Audit reports administratively to the President.

### 2.3 Independence and Objectivity

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Internal Audit has, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports...
administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Finance, Compliance, Audit, and Audit Risk Committee of the Board of Visitors. The internal audit function shall be functionally independent of all university operations.

The Director of Internal Audit or members of the department must have an impartial, unbiased attitude and avoid any conflict of interest. Members of the internal audit function shall not be assigned to operating duties except for temporary assignments as requested by the President and the university’s Chief Financial Officer and approved by the Finance and Audit Committee of the Board of Visitors. In addition, members of the internal audit function will not develop and install procedures, prepare records, make management decisions, or engage in any other activity which could be reasonably construed to compromise their independence. The Director of Internal Audit or members of the department shall not be assigned any additional supervisory or oversight responsibilities which could be reasonably construed to compromise their independence. All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

**2.42.3 Authority**

The internal audit function OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. The internal audit function OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

**2.52.4 Auditing Standards**

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors’ International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and Code of Ethics. The Definition of Internal Auditing. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

Members of the internal audit function have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university. In addition, the internal audit function’s activities and conduct shall be consistent with the policies of the university.

**2.62.5 Systems Planning and Development**

The internal audit function OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:
• Reasonable and adequate internal controls exist.
• Systems or procedural documentation is complete and appropriate.
• An adequate audit trail exists.

The internal audit function’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.7.2.6 Responsibilities of the Executive Director of Internal Audit, Risk, and Compliance

The Executive Director of Internal Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of the internal audit function OARC to ensure that the audit work fulfills the purposes and responsibilities established in this policy statement.

The Executive Director of Internal Audit, Risk, and Compliance is specifically charged with the following responsibilities:

• Coordinating all auditing activities to provide a central source of information for management and the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
• Going beyond accounting and financial records when necessary during audit activities to obtain a thorough understanding of the activities under audit.
• Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
• Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
• Establishing written policies and procedures for the internal audit function OARC and directing its technical and administrative functions.
• Developing, submitting for approval, and executing comprehensive risk-based annual and long-range audit plans to carry out departmental responsibilities.
• Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
• Documenting appropriately the results of all audits, reviews, and evaluations performed.
• Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
• Issuing an annual summary report of audit activities to the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors.
• Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
• Establishing and maintaining a quality assurance review program Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
• Communicating directly with the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
• Performing sufficient tests and examinations to determine and report to management, the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective or recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

2.8.2.7 Audit Reports

The internal audit function OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Internal Audit, Risk, and Compliance, depending upon the nature and conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Internal Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Internal Audit, Risk, and Compliance may decide, with the approval of the Chair of the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.9.2.8 Responsibility for Corrective Action

Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Internal Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.10.2.9 Coordination with External Auditing Agencies

The Executive Director of Internal Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.11.2.10 Special Projects

The Executive Director of Internal Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures

Principal guidance and direction on how the internal audit function OARC accomplishes its mission and responsibilities is provided to the audit staff through the Virginia Tech Internal Audit Manual (Manual), an office procedures manual. The Manual manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The Manual manual also provides a resource to external
parties such as the Finance, Compliance, Audit, and Audit Risk Committee of the Board of Visitors, senior management, external auditors, and quality assurance parties.

4. Definitions

Abuse
Excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Extravagant or excessive use as to abuse one’s position or authority. Abuse can occur in financial or nonfinancial settings.

Add Value
The internal audit function adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

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Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

Assurance
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

Charter
The internal audit charter is a formal document that defines the internal audit function’s purpose, authority, and responsibility. The internal audit charter establishes the internal audit function’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

Code of Ethics
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Conflict of Interest
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest would prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

Control
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.

Control Environment
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).

**Control Processes**
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

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**Executive Director of Internal Audit, Risk, and Compliance**
The individual that serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the IIA’s Definition of Internal Auditing, the Core Principles, the Code of Ethics, and the Standards.

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**Engagement**
A specific internal audit assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

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**Enterprise Risk Management**
A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

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**Fraud**
The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

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**Governance**
The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

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**Independence**
The freedom from conditions that threaten the ability of the internal audit function to carry out internal audit responsibilities in an unbiased manner.

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**Internal Audit Function**
The department, division, team of advisors, or other practitioner(s) that provides independent, objective assurance and advisory services designed to add value and improve an organization’s operations.

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**International Professional Practices Framework**
The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories – (1) mandatory and (2) strongly recommended.
Objectivity
An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they believe in their work product and that no quality compromises are made. Objectivity requires that internal auditors do not subordinate their judgment on audit matters to others.

Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular audit. The scope can be specified by defining the physical location of the audit, the organizational units that will be examined, the processes and activities that will be included, and the time period that will be covered.

Significance
The relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors, such as magnitude, nature, effect, relevance, and impact. Professional judgment assists internal auditors when evaluating the significance of matters within the context of the relevant objectives.

Standards
A professional pronouncement that delineates the requirements for performing a broad range of internal audit activities, and for evaluating internal audit performance.

Waste
The intentional or unintentional, thoughtless or careless expenditure, consumption, mismanagement, use, or squandering of Commonwealth resources to the detriment or potential detriment of the Commonwealth. Waste also includes incurring unnecessary costs due to inefficient or ineffective practices, systems, or controls.

5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), The Institute and the Definition of Internal Auditors, issued in 2008 Auditing, revised in 2012.


6. Approval and Revisions
- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.
• Revision 1
Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.

• Revision 2
Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.
Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

• Annual review, November 5, 1998, by Office of the Executive Vice President. No revisions.

• Revision 3
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.
Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.
Approved March 29, 2004 by the Finance and Audit Committee of the Board of Visitors.

• Revision 4
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.
Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.
Approved March 14, 2005 by the Finance and Audit Committee of the Board of Visitors.

• Revision 5
April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

• Revision 6
Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”
Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.
Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.
Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.
Approved November 7, 2011 by the university President, Charles W. Steger.
Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

• Revision 7
Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”

Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.

- **Revision 8**

  Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

  Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
I. PURPOSE

The primary purpose of the Compliance, Audit, and Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university’s compliance with all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory agencies, funding agencies, and the State Council of Higher Education for Virginia,
- The maintenance of effective systems of internal control, including the integrity of the university’s financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Office of Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s internal control systems. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

This document and the related meeting planner are intended to identify and document the Committee’s oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. MEETINGS

By statute the Board of Visitors, including the CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently.
as circumstances warrant. The Committee Chair should discuss the agenda with the Executive Director of Audit, Risk, and Compliance prior to each Committee meeting to finalize the meeting agenda and review the items to be discussed.

III. RESPONSIBILITIES

In performing its audit oversight responsibilities, the CAR Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Maintain minutes of meetings.
3. Authorize audits within the Committee’s scope of responsibilities.
4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Risk Management and Internal Control

1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.
2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.
3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.
4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.
5. Advise management that they are expected to provide a timely analysis of significant reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.
2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.
3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.
4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.
5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (non-financial statement audits).

D. **Internal Auditors**

1. Approve the charter for the Office of Audit, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.
2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.
4. Review completed audit reports and progress reports on executing the approved annual audit plan.
5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.
6. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.
7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance.
8. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation.

E. **Compliance, Ethics, and Business Conduct**

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.
2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.
3. Review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.

The “CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

Virginia Polytechnic Institute and State University
Compliance, Audit, and Risk Committee of the Board of Visitors CAR
Agenda Meeting Planner

<table>
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<tr>
<th>Frequency</th>
<th>Planned Timing</th>
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<tr>
<td>A=Annually; Q=Quarterly; AN=As Necessary</td>
<td>Q1</td>
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<tr>
<td>Q1, Q2, Q3, Q4 based on Fiscal Year (July – June)</td>
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A. General

1. Review and update CAR Committee charter
   - X
2. Approve and maintain minutes of previous meeting
   - X X X X X
3. Authorize audits within the Committee’s scope of responsibilities
   - X
4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate
   - X X X X X
5. Meet in closed session with Executive Director of Audit, Risk, and Compliance, and with external auditors, as needed
   - X X X X X

B. Risk Management and Internal Control

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies
   - X X X X X X
2. Consider the effectiveness of the university’s internal control systems
   - X
3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses
   - X X X X X X
4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system
   - X X X X X X
5. Advise management that they are expected to provide a timely analysis of significant current reporting issues and practices
   - X X

C. External Auditors
1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year | X | | X |
2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks | X | X | X |
3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks | X | X | X |

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4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s) | X | X |
5. Review results of other significant reviews from regulatory agencies or other external entities | X |

**D. Internal Auditors**

1. Review and approve the charter for the Office of Audit, Risk, and Compliance, if changes are needed | X | X |
2. Review the draft annual audit plan | X | X |
3. Approve the annual audit plan | X | X |
4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships | X | X |
5. Review the results of the QAIP, including internal and external assessments | X |
6. Review completed audit reports and progress reports on executing the approved annual audit plan | X | X | X | X | X |
7. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information | X | X | X | X | X |
8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance | X |
9. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation | X | X |

**E. Compliance, Ethics, and Business Conduct**

1. Convey commitment to ethical conduct through periodic receipt of management reports on how the university’s mission, values, and codes of conduct are properly communicated to all employees | X |
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<tr>
<td>2. Review the programs and policies of the university designed to assure and monitor compliance</td>
<td>X</td>
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<tr>
<td>3. Monitor the university’s conflict of interest policies and related procedures</td>
<td>X</td>
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VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
FINANCE COMPLIANCE, AUDIT, AND AUDITRISK COMMITTEE OF THE BOARD OF VISITORS

COMPLIANCE, AUDIT, AND RISK CHARTER

I. PURPOSE

The primary purpose of the Finance Compliance, Audit, and Audit Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The integrity of the university’s financial accounting and reporting practices,
- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university’s compliance with legal and all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory requirements, agencies, funding agencies, and the State Council of Higher Education for Virginia,
- Fiscal planning and the execution of fiscal plans,
- The maintenance of an effective system of internal controls, including the integrity of the university’s financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Department of Internal Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s system of internal controls. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

The Committee is charged in the Bylaws of the Board of Visitors with separating its responsibilities for Finance and Audit, respectively, and with maintenance of a separate audit agenda and finance agenda for each meeting. This document and the related meeting planner are intended to identify and document the Committee’s audit-specific oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities.
that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. COMPOSITION AND INDEPENDENCE

The Finance and Audit Committee will be comprised of three or more Visitors. Each committee member will be financially literate and shall fully comply with the State and Local Government Conflict of Interests Act, Section 2.2-3100 of the Code of Virginia as amended.

III. MEETINGS

By statute the Board of Visitors, including the Finance and Audit CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently as circumstances warrant. The Committee Chair should discuss the Audit agenda with the Executive Director of Internal Audit, Risk, and the university’s Chief Financial Officer Compliance prior to each Committee meeting to finalize the meeting agenda and review the issues to be discussed.

IV. RESPONSIBILITIES

In performing its audit oversight responsibilities, the Finance and Audit CAR Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Maintain minutes of meetings.
3. Authorize audits within the Committee’s scope of responsibilities.
4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Internal Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Internal Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Internal Controls, Risk Assessment, Management and Financial Reporting

Internal Control
1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.

2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.

3. Review the university’s processes for assessing significant business risk exposures and the steps management has taken to monitor and control such exposures, including the university’s risk assessment and risk management policies.

4. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.

5. Review the annual financial statements with management and the external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

6. Advise management that they are expected to provide a timely analysis of significant financial reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.

2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (nonfinancial statement audits).

D. Internal Auditors
1. Approve the **Internal charter for the Office of Audit Charter, Risk, and Compliance**. The charter should be reviewed annually and updated as necessary.

2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.

4. Review completed audit reports and progress reports on executing the approved annual audit plan.

5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.

5.6. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.

6.7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance.

7.8. Evaluate the Executive Director of Internal Audit’s Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation.

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<tr>
<td>A=Annually; Q=Quarterly; AN=As Necessary</td>
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<td>Q1 Q2 Q3 Q4</td>
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</table>
E. Compliance, Ethics, and Business Conduct

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.

2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.

3. Periodically review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.

The attached “Audit CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

Virginia Polytechnic Institute and State University
Finance Compliance, Audit, and Audit Risk Committee of the Board of Visitors
Audit CAR Agenda Meeting Planner

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<tr>
<td>Aug</td>
<td>Nov</td>
<td>Mar</td>
</tr>
<tr>
<td>1. Review and update F&amp;A CAR Committee Audit Charter</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Approve and maintain minutes of previous meeting</td>
<td>X</td>
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</tr>
<tr>
<td>3. Authorize audits within the Committee’s scope of responsibilities</td>
<td>X</td>
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<tr>
<td>4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5. Meet in closed session with Executive Director of Internal Audit, Risk, and Compliance, and with external auditors, as needed</td>
<td>X</td>
<td>X</td>
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</table>

B. Risk Management and Internal Controls/Risk Assessment/Fin Reporting Control

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies | X | X | X | X | X |

2. Consider the effectiveness of the university’s internal control systems | X |
2. Review the university's processes for assessing significant business risk exposures and the steps taken to monitor and control such exposures

3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management's responses

4. Review the annual financial statements with management and external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles

5. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system

6. Advise management that they are expected to provide a timely analysis of significant current financial reporting issues and practices

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<tr>
<td>Q1</td>
<td>Q2</td>
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</table>

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year

2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)

5. Review results of other significant reviews from regulatory agencies or other external entities

D. Internal Auditors
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<tbody>
<tr>
<td>1. Review and approve Internal Audit charter for the Office of Audit, Risk, and Compliance, if changes are needed</td>
<td>X</td>
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<tr>
<td>2. Review the draft annual audit plan</td>
<td>X</td>
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<tr>
<td>3. Approve the annual audit plan</td>
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<tr>
<td>4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships</td>
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<tr>
<td>5. Review the results of the QAIP, including internal and external assessments</td>
<td>X</td>
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<tr>
<td>5-6. Review completed audit reports and progress reports on executing the approved annual audit plan</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6-7. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>7-8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance</td>
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<td>X</td>
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<tr>
<td>8-9. Evaluate the Executive Director of Internal Audit's Audit, Risk, and Compliance's annual performance and make decisions regarding compensation</td>
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<tr>
<td>Frequency</td>
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<td>Q4</td>
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### A=Annually; Q=Quarterly; AN=As Necessary

### Frequency

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<tr>
<th>Q1, Q2, Q3, Q4 based on Fiscal Year (July–June)</th>
<th>A</th>
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### Planned Timing

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### E. Compliance, Ethics, and Business Conduct

1. **Require Convey commitment to ethical conduct through periodic receipt of management to periodically report reports on procedures that provide assurance that how the university’s mission, values, and codes of conduct are properly communicated to all employees**

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2. **Review the programs and policies of the university designed to assure and monitor compliance**

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3. **Monitor the university’s conflict of interest policies and related procedures**

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<td>X</td>
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<td>Reason for Conflict</td>
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<td>Owner</td>
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<td>Faculty-Employee Owned Business</td>
<td>Continuum Biosciences, Inc.</td>
<td>Webster Santos</td>
<td>Chemistry</td>
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Closed Session Agenda
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE
Inn at Virginia Tech and Skelton Conference Center
Duck Pond Room
8:15 – 8:30 a.m.
Monday, November 6, 2017

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<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
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<tbody>
<tr>
<td>1. Motion to begin Closed Session</td>
<td>D. Petrine</td>
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<tr>
<td>2. Consent Agenda</td>
<td>D. Petrine</td>
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<tr>
<td>* A. Resolutions to Approve Appointments to Emeritus Status (6)</td>
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<td>* B. Resolutions to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (4)</td>
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<td>* C. Resolution to Approve Faculty Research Leave (1)</td>
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<tr>
<td>* 3. Resolution to Approve National Distinction Salary Adjustments</td>
<td>C. Clarke</td>
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<tr>
<td>* 4. Ratification of Faculty Personnel Changes Report</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>5. Motion to return to Open Session</td>
<td>D. Petrine</td>
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* Requires Full Board Approval
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

Inn at Virginia Tech and Skelton Conference Center

Monday, November 6, 2017

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<tr>
<td>* A. Resolutions to Approve Appointments to Emeritus Status (6)</td>
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<tr>
<td><strong>The committee will consider six resolutions for appointments to emeritus/a status.</strong></td>
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<td>* B. Resolutions to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (4)</td>
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<td><strong>The committee will consider four resolutions for appointments to endowed professorship or fellowships.</strong></td>
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<td>* C. Resolution to Approve Faculty Research Leave (1)</td>
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<td><strong>The committee will consider a resolution to approve one request for faculty research leave.</strong></td>
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<tr>
<td>* 3. Resolution to Approve National Distinction Salary Adjustments</td>
<td>C. Clarke</td>
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<tr>
<td><strong>The committee will consider a resolution to approve salary adjustments for faculty with demonstrated national distinction and exceptional performance in their role.</strong></td>
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<tr>
<td>* 4. Ratification of Faculty Personnel Changes Report</td>
<td>C. Clarke</td>
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<tr>
<td><strong>The Faculty Personnel Changes Report is a joint report of the Academic, Research and Student Affairs and the Finance &amp; Resource Management committees. The report includes new appointments and adjustments in salaries for faculty through the quarter ending September 30, 2017.</strong></td>
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<tr>
<td>5. Motion to return to Open Session</td>
<td>D. Petrine</td>
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* Requires Full Board Approval
Open Session Agenda

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE
Inn at Virginia Tech and Skelton Conference Center
Duck Pond Room
8:45 – 11:30 a.m.
Monday, November 6, 2017

Agenda Item | Reporting Responsibility
--- | ---
1. Welcome and Acceptance of Agenda | D. Petrine
2. Report of Closed Session Action Items | D. Petrine
3. Consent Agenda | D. Petrine
   * A. Approval of September 10, 2017 Minutes
   * B. Resolutions and Reports
      i. Undergraduate Academic Affairs
         * a. Resolution to Approve New Degree, Bachelor of Science in Public Health
      * ii. Pratt Fund Program and Expenditures Report
      * iii. Exclusion of Certain Officers/Directors
4. Committee Discussion | 
   * A. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine | C. Clarke
   B. College Update: College of Liberal Arts and Human Sciences | R. Blieszner
   C. Student Affairs: Impact of Enrollments | P. Perillo
   D. Research Report | T. Mayer
   E. Partnership for an Incentive-Based Budget (PIBB) | J. Earley
   F. Council of College Deans Update | R. Sumichrast
   G. Provost’s Update | C. Clarke
5. Other Items/Adjourn | D. Petrine

*Requires Full Board Approval
Open Session Briefing Report
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE
November 6, 2017

Agenda Item

1. Welcome and Acceptance of Agenda
   Debbie Petrine, chair of the committee, will convene the meeting, introduce Cyril Clarke as interim executive vice president and provost, and review the agenda for acceptance by committee members.

2. Report of Closed Session Action Items
   Debbie Petrine will report on actions taken during the Closed Session of the committee meeting including six appointments to emeritus status, four appointments to endowed chairs, professorships, or fellowships, one faculty research leave, national distinction salary adjustments, and the ratification of the faculty personnel changes report.

3. Consent Agenda
   A. Approval of September 10, 2017 Minutes
   * B. Resolutions and Reports
      i. Undergraduate Academic Affairs
         * a. Resolution to Approve New Degree, Bachelor of Science in Public Health
         * ii. Pratt Fund Program and Expenditures Report
         * iii. Exclusion of Certain Officers/Directors
   The committee will consider approval of the consent agenda including meeting minutes, a new bachelor of science degree in public health, and the budget proposals from the College of Agriculture and Life Sciences and the College of Engineering for the expenditure of Pratt Funds during 2016-2017, as required by the terms of the bequest. The Pratt Fund is also considered by the Finance and Resource Management committee, in addition to a resolution to consider approval of a resolution to exclude certain officers/directors in accordance with the National Industry Security Program Operating Manual.

4. Committee Discussion
   * A. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine into Virginia Tech

*Requires Full Board Approval
Cyril Clarke, interim executive vice president and provost, will provide an overview of the school and ask the committee to approve a resolution for Virginia Tech to acquire the VTCSOM as the ninth college of the university. This resolution is shared with the Finance and Resource Management committee.

B. College Update:  
**College of Liberal Arts and Human Sciences**  
Rosemary Blieszner, dean of the college of liberal arts and human sciences will highlight the college’s academic programs, scholarship, research, and significant contributions to the university’s Destination Areas.

C. Student Affairs: Impact of Enrollments  
Patty Perillo, vice president for student affairs, will discuss the impact of enrollments on student support services including residence life, dining, wellness, and other aspects of student life.

D. Research Report  
Theresa Mayer, vice president for research and innovation, will provide an update on the research enterprise of the university.

E. Partnership for an Incentive-Based Budget (PIBB)  
Jeff Earley, associate vice provost for finance, will provide an overview of how the Partnership for an Incentive Based Budget (PIBB) supports and advances college and university excellence and aspirations.

F. Council of College Deans Update  
Robert Sumichrast, dean of the Pamplin College of Business and committee representative from the university’s Council of College Deans will share an update from the deans’ perspective on university initiatives.

G. Provost’s Update  
Cyril Clarke will provide a brief update.

5. **Other Items/Adjourn**
RESOLUTION TO INTEGRATE THE VIRGINIA TECH CARILION SCHOOL OF MEDICINE INTO VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

WHEREAS, Virginia Polytechnic Institute and State University (“Virginia Tech”) and Carilion Clinic have a long history of collaborative research and development of programs that are beneficial to both parties, as well as a history of strengthening the state, local, and surrounding Southwest Virginia economies with increased research funding and private investment; and

WHEREAS, the parties established a medical school titled the Virginia Tech Carilion School of Medicine to assist in the alleviation of the shortage of physician specialists in the Southwest Virginia region; and

WHEREAS, consistent with Virginia Tech’s strategic initiatives, biomedical education and research are areas of special interest for the continued growth of Virginia Tech; and

WHEREAS, on August 29, 2016, the Virginia Tech Board of Visitors affirmed its intent to acquire and integrate the Virginia Tech Carilion School of Medicine into Virginia Tech as its ninth college; and

WHEREAS, the acquisition and integration of the Virginia Tech Carilion School of Medicine into Virginia Tech requires notification, review, and approval by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the State Council of Higher Education for Virginia (SCHEV), the Virginia Tech Board of Visitors, the Carilion Clinic Board of Directors, and the Virginia Tech Carilion School of Medicine Board of Directors, and other accrediting or regulatory bodies, as required;

NOW, THEREFORE, BE IT RESOLVED that effective July 1, 2018, the Virginia Tech Carilion School of Medicine will be acquired and fully integrated into Virginia Polytechnic Institute and State University as its ninth college.

RECOMMENDATION:

That the resolution expressing the intent to integrate the Virginia Tech Carilion School of Medicine into Virginia Tech be approved.

November 6, 2017
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Various Campus Locations – see detailed schedule
Meet in the lobby of The Inn 15 minutes prior to departure

11:30 a.m. – 7:00 p.m.
Saturday, November 4, 2017

AGENDA ITEM

1. Lunch with students in West End Market

2. Campus Tour
   Reporting Responsibility: Dr. Sherwood Wilson

3. Campus Master Plan Update
   Reporting Responsibility: Mr. Jason Soileau

4. Continue Campus Tour
   Reporting Responsibility: Dr. Sherwood Wilson

The Buildings and Grounds Committee will reconvene in a joint open session with the Compliance, Audit and Risk Committee at 9:45 a.m. on Sunday, November 5, 2017 in the Solitude Room at the Inn at Virginia Tech.
Open Joint Session Agenda

BUILDINGS AND GROUNDS COMMITTEE
AND
COMPLIANCE AUDIT AND RISK COMMITTEE

The Inn at Virginia Tech – Solitude
9:45 a.m. – 10:00 a.m.
November 5, 2017

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<th>Agenda Item</th>
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Open Session

1. **2016 Jeanne Clery Act Report on Campus Security and Fire Safety:** The Committees will review the annual campus security and fire safety report for Virginia Tech that is compiled and published by the Virginia Tech Police Department. This annual report is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The purpose of the report is to provide information about security on campus, to include: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides.
## Open Session Agenda

**BUILDINGS AND GROUNDS COMMITTEE**

**The Inn – Solitude**

**10:00 – 11:30**

**Sunday – November 5, 2017**

### Agenda Item | Reporting Responsibility
--- | ---
1. Welcome | Mr. Mike Quillen, Chair

2. **Consent Agenda** | Mr. Mike Quillen, Chair
   - **a.** Approval of the Minutes from the September 11, 2017 meeting
   - **b.** Resolution to Create an Easement and/or Amend the Virginia Tech / Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch
   - **c.** Sustainability Annual Report
   - **d.** Acceptance of Capital Project Status Report

3. Presentation on Campus Security | Chief Kevin Foust

4. Presentation on Campus Safety & Preparedness | Mr. Mike Mulhare

5. **Amended Resolution Supporting the Amendment of Chapter 638 Virginia Acts of Assembly Relating to the New River Valley Emergency Communications Authority** | Dr. Sherwood Wilson

6. **Design Preview / Review for Advanced Design and Construction Facility** | Mr. Jason Soileau

7. **Design Review for Multi-Modal Transit Facility** | Mr. Jason Soileau

8. **Design Review for Virginia Tech Carilion Biomedical Research Expansion** | Mr. Jason Soileau

9. **March Agenda Discussion** | Mr. Mike Quillen

* Requires full Board approval.
Open Session

1. Welcome

2. Consent Agenda: The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

   a. Approval of the Minutes for the September 11, 2017 meeting.

   b. Resolution to Create an Easement and/or Amend the Virginia Tech/Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch: The proposed easement would allow partial encroachment of the Lane Substation expansion into the stormwater easement area, and allow for the creation and maintenance of a stormwater channel/ditch near the Virginia Tech/Montgomery Regional Airport expansion.

   c. Sustainability Annual Report: The Committee will review for acceptance the annual sustainability report. Significant progress continues to be made in this area through student engagement in on-going programs, as well as in operational improvements throughout the institution.

   d. Acceptance of Capital Project Status Report: The Committee will review for acceptance the quarterly capital project status report.

3. Presentation on Campus Security: The Committee will receive a presentation regarding campus security from Virginia Tech Police Department Chief Kevin Foust. The presentation will provide an overview of the campus Police Department, some high level statistics regarding crime on campus, and information regarding interagency partnerships and community outreach efforts.

4. Presentation on Campus Safety and Preparedness: The Committee will receive a presentation regarding campus safety and preparedness from Mr. Michael Mulhare, Assistant Vice President for Emergency Management. Main areas of focus will include the university’s structure and plans related to safety and security, the university’s emergency notification system, and preparedness efforts such as trainings, exercises, and information dissemination.
5. **Amendment to September 11, 2017 Resolution Supporting Amendment of Virginia Acts of Assembly 2010 Chapter 638:** Following the Board of Visitors approval in September, Authority leadership determined that additional clarifications were required in the Resolution and proposed legislation amendment. The changes clarify that all participating agencies must approve the funding formula proposed by the Authority’s Board of Directors before such formula is implemented.

6. **Design Preview/Review for Advanced Design and Construction Facility:** This project will provide a support facility for the College of Architecture and Urban Studies as well as the College of Engineering. The facility will house assignable space to support initiatives such as the Solar Decathlon, FutureHaus research programming, and Destination Area activities. It is consistent with long-term master plan strategies and may revert to use as a storage space with further development of the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area. The 4,965 gross square foot facility will be sited off of Inventive Lane, to the southeast of the current Thomas M. Murray Structures Lab.

7. **Design Review for Multi-Modal Transit Facility:** This project, managed through the Town of Blacksburg, proposes new construction of a 13,716 gross square foot facility fronting existing Perry Street in the North Academic District. The project will include 17 covered bus slips in loop configurations to the east, west, and southwest, and will feature sustainable elements. The facility will centralize transit transfers and serve multiple modes of alternative transportation. It will provide amenities for alternative transportation users (including a bike repair hub) and is strategically located along the planned Infinite Loop.

8. **Design Review for Virginia Tech Carilion Biomedical Research Expansion:** At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are currently proceeding with the Preliminary Design phase for approximately 139,300 gross square feet of new construction. The project will include research and education spaces that bring together researchers and clinicians in areas of human and animal medical sciences with a focus on five thematic areas. The site is located at the Riverside Center Research Education and Medical Park in Roanoke.

9. **March Agenda Discussion:** The Committee will discuss potential topics for inclusion on the March meeting agenda.

*Requires full Board approval.*
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<tr>
<td>1. Approval of Resolution for Student Wellness Improvements</td>
<td>Mr. Shelton</td>
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<td>Dr. Wilson</td>
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* Requires full Board approval.
Open Session

* 1. **Approval of Resolution for Student Wellness Improvements:** The Committees will review for approval a resolution for Student Wellness Improvements. In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university conducted a program and facility study and identified the renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs.

   The proposed improvements to War Memorial Hall will provide updated space for Cook Counseling Center and Hokie Wellness, the department of Human Nutrition, Foods, and Exercise (HNFE), Recreation Sports, and School of Education for running programmatic activities to support and promote student wellness, instruction, and research. The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to accommodate student health services.

   The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. This request is for a $63 million authorization to complete the Student Wellness Improvements project.

* Requires full Board approval.
Following the Board of Visitors approval in September, Authority leadership determined that additional clarifications were required in the Resolution and proposed legislation amendment. The changes clarify that all participating agencies must approve the funding formula proposed by the Authority’s Board of Directors before such formula is implemented.
WHEREAS, The Virginia General Assembly enacted the New River Valley Emergency Communications Regional Authority Act, effective July 1, 2010 ("the Act"), enabling the County of Montgomery, the Town of Blacksburg, the Town of Christiansburg and Virginia Polytechnic Institute and State University to form a regional authority to provide the core responsibilities for governance of a consolidated public safety communications center with regional interoperable communications; and

WHEREAS, the governing bodies of the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University, by Resolution, approved, executed and delivered a Memorandum of Understanding supporting the formation of the New River Valley Emergency Communications Regional Authority (the “Authority”) to provide 911 dispatch and emergency communications services for the people of Montgomery County and for Virginia Polytechnic Institute and State University’s Blacksburg campus; and

WHEREAS, the Authority was properly formed in 2010 and has successfully operated dispatch services for over one (1) year; and

WHEREAS, the Virginia Polytechnic Institute and State University (“Virginia Tech”) Board of Visitors at its September 11, 2017 meeting approved a similar Resolution supporting amendment of the Act prior to the Authority’s determination that additional clarifications were needed; and

WHEREAS, the Authority plans to develop a funding formula for the allocation each year of its Annual Budget (the “Allocation Formula”) in Annual Contributions to be allocated among the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and payable quarterly to the Authority, subject, however, to the approval in advance of the Allocation Formula or any amendment or revision to the Allocation Formula by the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and further subject in each year to appropriation; and

WHEREAS, the Authority has suggested that certain amendments be made to the Act permitting the implementation of the Allocation Formula, its approval in advance by the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and the allocation of Annual Contributions to the Authority’s Annual Budget; and
WHEREAS, an updated copy of “Amendment of Chapter 638 of the 2010 Virginia Acts of Assembly (the “Act”) relating to the New River Valley Emergency Communications Regional Authority” (the “Amendment to the Act”) setting out the proposed amendments to the Act is attached as an exhibit;

NOW, THEREFORE, BE IT RESOLVED, that the Virginia Tech Board of Visitors hereby approves the proposed Amendment to the Act and authorizes and directs the Authority to submit the same for approval by the Virginia General Assembly at its 2018 legislative session.

RECOMMENDATION:

That the above amended resolution supporting the amendment of the Act to permit implementation of an Allocation Formula and Annual Contributions to the Authority’s Annual Budget be approved.

November 5, 2017
An Act to create Amendment of Chapter 638 of the 2010 Virginia Acts of Assembly (the “Act”) relating to the New River Valley Emergency Communications Regional Authority.

Approved April 11, 2010

Be it enacted by the General Assembly of Virginia hereby amends Chapter 638 of the 2010 Virginia Acts of Assembly by amending the Act as follows:

1. § 1. Title.
This Act shall be known and may be cited as the New River Valley Emergency Communications Regional Authority Act.

§ 2 Creation; public purpose.
If the governing bodies of the Towns of Blacksburg and Christiansburg, the County of Montgomery, and the Board of Visitors for Virginia Polytechnic Institute and State University (Virginia Tech) by resolution support the formation of a regional authority to provide 911 dispatch and emergency communications services to the people of each jurisdiction and campus, an authority known as the New River Valley Emergency Communications Regional Authority Act (hereinafter the Authority) shall thereupon exist for such participating entities and shall exercise its powers and functions as prescribed herein.

In any suit, action, or proceeding relating to or involving the validity or enforcement of any contract of the Authority, the Authority shall be deemed to have been created as a political subdivision and body corporate and to have been established and authorized to transact business and exercise its powers hereunder upon proof of the adoption of a resolution as aforesaid by the governing bodies of such towns, county, and university supporting the formation of such Authority. A copy of such resolution duly certified by the clerk or secretary of the governing body of the towns, county, and university by which it is adopted shall be admissible as evidence in any suit, action, or proceedings. Any political subdivision of the Commonwealth is authorized to join such Authority pursuant to the terms and conditions of this Act.

The ownership and operation by the Authority of emergency communications services and the exercise of powers conferred by this Act are proper and essential governmental functions and public purposes and matters of public necessity for which public moneys may be spent and private property acquired through the power of eminent domain as hereinafter provided. The purposes of such Authority shall be to develop a consolidated system for the receipt of and response to 911 emergency calls and communications that will improve response time, quality of service, and coordination of available resources for the citizens of the affected localities.

The Authority and its members, officers, employees, and agents shall all enjoy sovereign immunity for torts committed in exercise of its governmental and proprietary functions. Nothing in this Act shall be construed as a waiver of the sovereign immunity enjoyed by any of the participating political subdivisions.

The courts of the Commonwealth of Virginia shall have original jurisdiction of all actions brought by or against the Authority, which courts shall in all cases apply the law of the Commonwealth of Virginia.

§ 3 Definitions.
As used in this act, the following words and terms have the following meanings unless a different meaning clearly appears from the context:
"Act" means the New River Valley Emergency Communications Regional Authority Act.
"Annual deficitBudget" means the amount of budgeted expenditures in excess of anticipated revenues from necessary each fiscal year for the payment of operations or capital budgets.
"Annual Contribution" means the portion of the Annual Budget attributable to each Participating Political Subdivision each fiscal year.
"Authority" means the New River Valley Emergency Communications Regional Authority created by this Act.
"Board" means the governing body of the Authority.
"Bonds" means any bonds, notes, debentures, grant obligations, or other evidence of financial indebtedness issued by this Authority pursuant to this Act.
"Commonwealth" means the Commonwealth of Virginia.
"Facility" means any and all buildings, structures, or facilities purchased, constructed, or otherwise acquired or operated by the Authority pursuant to the provisions of this Act. Any facility may consist of or include any or all buildings or other structures, improvements, additions, extensions, replacements, machinery, or equipment, together with appurtenances, lands, rights in land, water rights, franchises, furnishings, landscaping, utilities, roadways, or other facilities necessary or desirable in connection therewith or incidental thereto.

"Participating political subdivisions" means the Towns of Blacksburg and Christiansburg, the County of Montgomery, and Virginia Polytechnic Institute and State University or any other political subdivision that may join or has joined the Authority pursuant to §§ 4 and 5 of this Act.

"Political subdivision" means a county, city, town, public body, public authority, institution (including an institution of higher education), or commission of the Commonwealth.

"University" means Virginia Polytechnic Institute and State University.

§ 4 Participating political subdivision.

At the time of creation of the Authority, each participating political subdivision shall have entered or shall enter into a memorandum of understanding by and among each of the participating political subdivisions setting forth the terms and conditions of the intended formation of the Authority.

No pecuniary liability of any kind shall be imposed upon any participating political subdivision because of any act, omission, agreement, contract, tort, malfeasance, misfeasance, or nonfeasance by or on the part of the Authority or any member thereof, or its agents, servants, or employees, except as otherwise provided in this Act with respect to contracts and agreements between the Authority and any other political subdivision.

§ 5 Joinder.

Membership in the Authority may be expanded only in accordance with the terms of a joinder agreement adopted by the governing bodies of each of the participating political subdivisions. Any other political subdivision may become a participating political subdivision of the Authority. The governing body of any locality wishing to become a member of the Authority shall by concurrent resolutions or ordinances and by agreement provide for the joinder of such locality. The agreement creating the expanded Authority shall specify the number and terms of office of members of the Board of the expanded Authority that are to be appointed by each of the participating political subdivisions and the names, addresses, and terms of office of initial appointments to Board membership.

§ 6 Appointment of members of the Board.

The powers of the Authority shall be vested in the members of the Board. The Board shall consist of five persons. Each participating political subdivision shall have the right to appoint one member of the Board and all participating political subdivisions shall jointly appoint the fifth member of the Board by unanimous approval of the participating political subdivisions. Each member of the Board shall be appointed for a term of four years, except that the initial members of the Board representing the participating political subdivisions shall be appointed for the following staggered terms to be selected by lot by the members of the Board at its initial meeting: one member shall be appointed for a term of one year; one member shall be appointed for a term of two years; one member shall be appointed for a term of three years; and one member shall be appointed for a term of four years. The jointly appointed member shall be appointed for an initial term of four years. Upon the expiration of the original term of office of a member of the Board, that member may continue to exercise all powers as a member of the Board until that person's successor is duly appointed and qualified.

Any vacancy in the membership of the Board other than by expiration of term shall be filled by the governing body that appointed the member or, in the case of the jointly appointed member, by approval of the governing bodies. The person appointed to fill such vacancy shall serve for the unexpired term only. Each participating political subdivision shall have the absolute right to remove its appointee to the Board, with or without cause, at any time. The participating political subdivisions shall have the absolute right to remove their joint appointee to the Board, with or without cause, at any time by resolution adopted by a majority of the governing bodies of the participating political subdivisions. Except as may be prohibited by the Constitution of Virginia, members of the Board may include elected or appointed officials, employees, managers, administrators, or officers of any participating political subdivision.

Each member of the Board may be reimbursed by the Authority for the amount of actual expenses incurred by him in the performance of his duties in addition to such other salary or benefit, or both, to be determined by the Authority.

§ 7 Organization.

A majority of the members of the Board shall constitute a quorum, and the vote of a majority of members of the Board shall be necessary for any action taken by the Board. Each member of the Board shall be entitled to one vote except as otherwise set forth herein. No vacancy in the membership of the Board shall impair the right of a quorum to exercise all the rights and perform all the duties of the Authority. The Board shall elect from its membership a chairman, vice-chairman, and secretary-
treasurer of the Board, such officers to serve in these capacities for terms of two years, except that an initial member of the Board whose term on the Board is for one year may be elected to serve in such capacity for a term of one year and if reappointed to the Board may thereupon be reelected to the Board to serve in such capacity.

The Authority shall hold regular meetings at such times and places as may be established by its bylaws.

The Board may make and from time to time amend and repeal bylaws, not inconsistent with this Act, governing the manner in which the Authority's business may be transacted and in which the power granted to it may be enjoyed. The Board may appoint such committees as it may deem advisable and fix the duties and responsibilities of such committees.


The Authority is hereby granted all powers necessary or appropriate to carry out the purposes of this Act, including the powers to:

1. Adopt bylaws for the regulation of its affairs and the conduct of its business;
2. Sue and be sued in its own name;
3. Have perpetual succession;
4. Adopt a corporate seal and alter the same;
5. Maintain offices at such places as it may designate;
6. Acquire, establish, construct, enlarge, improve, maintain, equip, operate, and regulate any structures, facilities, and other property incidental thereto;
7. Construct, renovate, install, maintain, and operate facilities for the location of dispatching services, necessary equipment, and administration space;
8. Apply for and accept gifts, grants of money, grants or loans of other property, or other financial assistance from, or borrow money from or issue bonds to, the United States of America and agencies and instrumentalities thereof; the Commonwealth and political subdivisions, agencies, and instrumentalities thereof; or any other person or entity, whether public or private, for or in aid of the construction, acquisition, ownership, operation, maintenance, or repair of the Authority's facilities (whether or not such facilities are then in existence) or for the payment of the principal of any indebtedness of the Authority, interest thereon, or other costs incident thereto and to borrow money on such terms as the Authority deems advisable. To this end the Authority shall have the power to render such services, comply with such conditions, and execute such agreements and legal instruments as may be necessary, convenient, or desirable or imposed as a condition to such financial aid, loads, grants, or other assistance;
9. Appoint, employ, or engage such officers, employees, architects, engineers, attorneys, accountants, financial advisors, investment bankers, and other advisors, consultants, and agents as may be necessary or appropriate and fix their duties and compensation;
10. Establish personnel rules;
11. Own; purchase; lease; obtain options upon; acquire by gift, grant, or bequest; or otherwise acquire any property, real, personal or intangible, or any interest therein, and in connection therewith to create, assume, or take subject to any indebtedness secured by such property;
12. Sell, lease, grant options upon, exchange, transfer, assign, or otherwise dispose of any property, real or personal, or any interest therein;
13. Make, assume, and enter into all contracts, leases, and arrangements necessary or incidental to the exercise of its powers, including contracts for the management or operation of all or any part of its facilities;
14. Adopt, amend, and repeal rules and regulations for the use, maintenance, and operation of its facilities and governing the conduct of persons and organizations using its facilities and to enforce such rules and regulations and all other rules, regulations, ordinances, and statutes relating to its facilities;
15. Purchase and maintain insurance and provide indemnification on behalf of any person who is or was a director, officer, employee, or agent of the Authority against any liability asserted against or incurred by him in any such capacity or arising out of his status as such;
16. Place a lien upon any or all of its property or otherwise secure its debts; and
17. Do all things necessary or convenient to the purposes of this Act.

§ 9. Rules, regulations, and minimum standards.

The Authority shall have the power to adopt, amend, and repeal rules, regulations, and minimum standards for the use, maintenance, and operation of its facilities and governing the conduct of persons and organizations using its facilities.

The Authority's rules and regulations shall be available for public inspection in the Authority's principal office.

The Authority's rules and regulations shall have the force of law, as shall any other rule or regulation of the Authority that shall contain a determination by the Authority that it is necessary to accord the same force and effect of law in the interest of the public safety.
§ 10. Reports.
The Authority shall keep minutes of its proceedings, which shall be open to public inspection during normal business hours. It shall keep suitable records of all its financial transactions and shall arrange to have the same audited annually by an independent certified public accountant. Copies of each such audit shall be furnished to each participating political subdivision and shall be open to public inspection. The Authority shall be deemed a local governmental agency subject to the requirements of the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq.) of the Code of Virginia.

§ 11. Procurement.
All contracts that the Authority may let for professional services, nonprofessional services, or materials shall be subject to the Virginia Public Procurement Act (§ 2.2-4300 et seq.) of the Code of Virginia.

§ 12 Deposit and investment of funds.
Except as provided by contract with a participating political subdivision, all moneys received pursuant to the authority of this Act, whether as proceeds from the sale of bonds or as revenues or otherwise, shall be deemed to be trust funds to be held and applied solely as provided in this Act. All moneys of the Authority shall be deposited in a qualified public depository and secured in accordance with the Virginia Security for Public Deposits Act (§ 2.2-4400 et seq.) of the Code of Virginia.

Funds of the Authority not needed for immediate use or disbursement may, subject to the provisions of any contract between the Authority and the holders of its bonds, be invested in securities that are considered lawful investments for public sinking funds or other public funds as set forth in the Investment of Public Funds Act (§ 2.2-4500 et seq.) of the Code of Virginia.

§ 13 Authority to issue bonds.
The Authority shall have the power to issue bonds in its discretion, for any of its purposes, including the payment of all or any part of the cost of Authority facilities and including the payment or retirement of bonds previously issued by it. The Authority may issue such types of bonds as it may determine, including (without limiting the generality of the foregoing) bonds payable, both as to principal and interest (i) from its revenues and receipts generally and (ii) exclusively from the revenues and receipts of certain designated facilities or loans, whether or not they are financed in whole or in part from the proceeds of such bonds. Any such bonds may be additionally secured by a pledge of any grant or contribution from a participating political subdivision, the Commonwealth, or any political subdivision, agency, or instrumentality thereof; any federal agency; or any unit, private corporation, copartnership, association, or individual as such participating political subdivision or other entities may be authorized to make under general law or by pledge of any income or revenues of the Authority or by mortgage or encumbrance of any property or facilities of the Authority. Unless otherwise provided in the proceeding authorizing the issuance of the bonds or in the trust indenture or agreement securing the same, all bonds shall be payable solely and exclusively from the proceeds and receipts of a particular facility or loan. Bonds may be executed and delivered by the Authority at any time and from time to time, may be in such form and denominations and of such terms and maturities, may be in registered or bearer form either as to principal or interest or both, may be payable in such installments and at such time or times not exceeding 40 years from the date thereof, may be payable at such place or places whether within or without the Commonwealth, may bear interest at such rate or rates, may be payable at such time or times and at such places, may be evidenced in such manner, and may contain such provisions not inconsistent herewith, all as shall be provided and specified by the Authority in authorizing each particular bond issue.

If deemed advisable by the Authority, there may be retained in the proceedings under which any bonds of the Authority are authorized to be issued an option to redeem all or any part thereof as may be specified in such proceedings, at such price or prices and after such notice or notices and on such terms and conditions as may be set forth in such proceedings and as may be briefly recited on the face of the bonds, but nothing herein contained shall be construed to confer on the Authority any right or option to redeem any bonds except as may be provided in the proceedings under which they shall be issued. Any bonds of the Authority may be sold at public or private sale in such manner and from time to time as may be determined by the Authority to be most advantageous and the Authority may pay all costs, premiums, and commissions that it may deem necessary or advantageous in connection with the issuance thereof. Issuance by the Authority of one or more series of bonds for one or more purposes shall not preclude it from issuing other bonds in connection with the same facility or any other facility, but the proceedings whereunder any subsequent bonds may be issued shall recognize and protect any prior pledge or mortgage made for any prior issue of bonds. Any bonds of the Authority at any time outstanding may from time to time be refunded by the Authority by the issuance of its refunding bonds in such amount as the Authority may deem necessary, but not exceeding an amount sufficient to refund the principal of the bonds so to be refunded, together with any unpaid interest thereon and any costs, premiums, or commissions necessary to be paid in connection therewith. Any such refunding may be
effected whether the bonds to be refunded shall have then matured or shall thereafter mature, either
by sale of the refunding bonds and the application of the proceeds thereof to the payment of the bonds
to be refunded thereby, or by the exchange of the refunding bonds for the bonds to be refunded thereby,
with the consent of the holders of the bonds so to be refunded, and regardless of whether or not the
bonds to be refunded were issued in connection with the same facilities or separate facilities, and
regardless of whether or not the bonds proposed to be refunded shall be payable on the same date or
on different dates or shall be due serially or otherwise.

All bonds shall be signed by the chairman or vice-chairman of the Authority or shall bear his
facsimile signature, and the corporate seal of the Authority or a facsimile thereof shall be impressed
or imprinted thereon and attested by the signature of the secretary (or the secretary-treasurer) or the
assistant secretary (or assistant secretary-treasurer) of the Authority or shall bear his facsimile
signature, and any coupons attached thereto shall bear the facsimile signature of said chairman. In
case any officer whose signature or a facsimile of whose signature shall appear on any bonds or
coupons shall cease to be an officer before delivery of such bonds, such signature, or such facsimile,
shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office
until such delivery. When the signatures of both the chairman or the vice-chairman and the secretary
(or secretary-treasurer) or the assistant secretary (or the assistant secretary-treasurer) are
facsimiles, the bonds must be authenticated by a corporate trustee or other authenticating agent
approved by the Authority.

If the proceeds derived from a particular bond issue, due to error of estimates or otherwise, shall
be less than the cost of the Authority facilities for which such bonds were issued, additional bonds may
in like manner be issued to provide the amount of such deficit, and unless otherwise provided in the
proceedings authorizing the issuance of the bonds of such issue or in the trust indenture securing the
same, shall be deemed to be of the same issue and shall be entitled to payment from the same fund
without preference or priority of the bonds of the first issue. If the proceeds of the bonds of any issue
shall except such cost, the surplus may be deposited to the credit of the sinking fund for such bonds or
may be applied to the payment of the cost of any additions, improvements, or enlargements of the
Authority facilities for which such bonds shall have been issued.

Prior to the preparation of definitive bonds, the Authority may, under like restrictions, issue interim
receipts or temporary bonds with or without coupons, exchangeable for definitive bonds when such
bonds shall have been executed and are available for delivery. The Authority may also provide for the
replacement of any bonds that shall become mutilated or shall be destroyed or lost. Bonds may be
issued under the provisions of this Act without obtaining the consent of any department, division,
commission, board, bureau, or agency of the Commonwealth, and without any other proceedings or
the happening of any other conditions or things other than those proceedings, conditions, or things
that are specifically required by this Act; provided that nothing contained in this Act shall be construed
as affecting the powers and duties now conferred by law upon the State Corporation Commission.

All bonds issued under the provisions of this Act shall have and are hereby declared to have all the
qualities and incidents of and shall be and are hereby made negotiable instruments under the Uniform
Commercial Code (§ 8.1A-101 et seq.) of the Code of Virginia, subject only to provisions respecting
registration of the bonds.

In addition to all other powers granted to the Authority by this Act, the Authority is authorized to
provide for the issuance from time to time of notes or other obligations of the Authority for any of its
authorized purposes. All of the provisions of this Act that relate to bonds shall apply to such notes or
other obligations insofar as such provisions may be appropriate.

§ 14 Credit of Commonwealth and political subdivisions not pledged.

Bonds issued pursuant to the provisions of this Act shall not be deemed to constitute a debt of the
Commonwealth or any political subdivision thereof other than the Authority, but such bonds shall be
payable solely from the funds provided therefore as herein authorized. All such bonds shall contain
on the face thereof a statement to the effect that neither the Commonwealth, nor any political
subdivision thereof, nor the Authority, except as may be otherwise stated, shall be obligated to pay the
same or the interest thereon or other costs incident thereto except from the revenues and money
pledged therefore and that neither the faith and credit nor the taxing power of the Commonwealth,
nor any political subdivision thereof, is pledged therefor and other costs incident thereto.

Bonds issued pursuant to the provisions of this Act shall not constitute indebtedness within the meaning
of any debt limitation or restriction.

§ 15 Members of the Board and persons executing bonds not liable thereon.

Neither the members of the Board nor any person executing the bonds shall be liable personally on
the Authority’s bonds by reasons of the issuance thereof.

§ 16 Security for payment of bonds; default.
The principal of and interest on any bonds issued by the Authority may be secured by a pledge of the revenues and receipts out of which the same shall be made payable, and may be secured by a trust indenture or agreement covering all or any part of the Authority facilities from which revenues or receipts so pledged may be derived, including any enlargements or any additions to any such projects thereafter made. The resolution under which the bonds are authorized to be issued and any such trust indenture or agreement may contain any agreements and provisions respecting the maintenance of the projects covered thereby, the fixing and collection of rents for any portions thereof leased by the Authority to others, the creation and maintenance of special funds from such revenues, and the rights and remedies available in the event of default, all as the Authority shall deem advisable not in conflict with the provisions hereof. Each pledge, agreement, and trust indenture made for the benefit or security of any of the bonds of the Authority shall continue to be effective until the principal of and interest on the bonds for the benefit of which the same were made shall have been fully paid. In the event of default in such payment or in any agreements of the Authority made as a part of the contract under which the bonds were issued, whether contained in the proceeding authorizing the bonds or in any trust indenture or agreement executed as security therefor, may be enforced by mandamus, suit, action, or proceeding at law or in equity to compel the Authority and the members, officers, agents, or employees thereof to perform each and every term, provision, and covenant contained in any trust indenture or agreement of the Authority, the appointment of a receiver in equity, or by foreclosure of any such trust indenture, or any one or more of said remedies.

§ 17 Taxation.

The exercise of the powers granted by this Act shall in all respects be presumed to be for the benefit of the inhabitants of the Commonwealth, for the increase of their commerce, and for the promotion of their health, safety, welfare, convenience, and prosperity, and as the operation and maintenance of any project that the Authority is authorized to undertake will constitute the performance of an essential governmental function, the Authority shall not be required to pay any taxes or assessments upon any facilities acquired and constructed by it under the provisions of this Act and the bonds issued under the provisions of this Act, their transfer and the income therefrom, including any profit made on the same thereof, shall at all times be free and exempt from taxation by the Commonwealth and by any political subdivision thereof.

§ 18 Bonds as legal investments.

Bonds issued by the Authority under the provisions of this Act are hereby made securities in which all public officers and public bodies of the Commonwealth and its political subdivisions, all insurance companies, trust companies, banking associations, investment companies, executors, administrators, trustees, and other fiduciaries may properly and legally invest funds, including capital in their control or belonging to them. Such bonds are hereby made securities that may properly and legally be deposited with and received by any state or municipal officer or any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations is now or may hereafter be authorized by law.

§ 19 Appropriation by political subdivision.

Any participating political subdivision or other political subdivision of the Commonwealth is authorized to provide services, to donate real or personal property, and to make appropriations to the Authority for the acquisition, construction, maintenance, and operation of the Authority's facilities. Any such political subdivision is hereby authorized to issue its bonds, including, but not limited to, general obligation bonds, in the manner provided in the Public Finance Act (§ 15.2-2600 et seq.) of the Code of Virginia or in any applicable municipal charter for the purpose of providing funds to be appropriated to the Authority, and such political subdivisions may enter into contracts obligating such bond proceeds to the Authority.

The Authority may agree to assume or reimburse a participating political subdivision for any indebtedness incurred by such participating political subdivision with respect to facilities conveyed by it to the Authority.

§ 20 Annual deficitBudget.

The Board shall have full authority to adopt its operating and capital budgets on an annual fiscal year (July 1 through June 30) basis (the “Annual Budget”), and to amend the same from time to time. The Board shall also have full authority to develop and adopt a formula for allocating the responsibility to pay for the Annual Budget among the participating political subdivisions (the “Allocation Formula”), which Allocation Formula must be presented to the participating political subdivisions on or before February 1, 2019. The participating political subdivisions shall consider the Allocation Formula on or before May 1, 2019, and if each of them approve it, each shall pay its share of the Annual Budget as allocated under the Allocation Formula. In the event all participating political subdivisions do not approve the Allocation Formula on or before July 1, 2019, each participating political subdivision will contribute one-quarter of the Authority’s Annual Budget for fiscal year 2019 and for all following fiscal years unless and until an Allocation Formula is approved.
by all of the participating political subdivisions. As used herein, “Annual Contribution” means either
(a) each participating political subdivision’s share of the Annual Budget allocated under the
Allocation Formula or (b) the one-quarter share of the Annual Budget that each of the participating
political subdivisions will pay if not all of the participating political subdivisions have on or before
July 1, 2019 (or July 1 in any year in which the Allocation Formula is presented for approval by the
participating political subdivisions). Once approved by all of the participating political subdivisions,
the Board may use the Allocation Formula each year to allocate responsibility for payment of the
Annual Budget among the participating political subdivisions. The Board shall also have full
authority to amend and revise the Allocation Formula, but any amendment or revision must be
submitted to and approved by each of the participating political subdivisions on the same dates prior
to the fiscal year in which the Allocation Formula is scheduled to be amended or revised. Each
participating political subdivision shall contribute its respective one-quarter share of the annual
deficit Annual Contribution each year -and otherwise as required; however, such obligation shall be
subject to and dependent upon annual appropriations being made from time to time by the governing
body of each such respective participating political subdivision, and as to the university by normal
approval of appropriations, and shall not be deemed to constitute a debt of such participating
political subdivisions within the meaning of Article VII, Section 10 of the Constitution of Virginia,
and as to the university, within the meaning of Article X, Section 9 of the Constitution of Virginia, or
any applicable statutory debt limitation. Should any participating political subdivision fail to
contribute in full its proportionate share of the annual deficit Annual Contribution, it shall remain a
member of the Authority, but its representative on the Board shall not be entitled to cast a vote on
any Authority matter until that participating political subdivision’s share of the annual deficit Annual
Contribution has been paid in full. Further, should any participating political subdivision fail to
contribute in full its proportionate share of the annual deficit Annual Contribution, the Authority shall
have a lien on any share of the Authority’s profit or surplus revenues otherwise entitled to be
distributed to the participating political subdivision. A participating political subdivision may
contribute a portion or all of its share of the annual deficit Annual Contribution through "in-kind"
contributions, subject to the approval of such contribution and valuation by the Authority.

§ 21 Contracts with political subdivisions.

The Authority is authorized to enter into contracts with any one or more political subdivisions.

§ 22 Authority as political subdivision.

The Authority is a political subdivision whose actions are exempt from the Commonwealth's rules and
regulations on its agencies and commissions as to demolition, alteration, capital outlay requirements,
temporary building use requirements, and like regulations and requirements. The Authority is subject to
local building code requirements.

§ 23 Fees for Service.

The Authority is authorized to charge a fee for service to individuals who are not members of the
participating political subdivisions and is, likewise, authorized to determine a fee schedule.

§ 24 Liberal construction.

Neither this Act nor anything herein contained is or shall be construed as a restriction or limitation
upon any powers that the Authority might otherwise have under any laws of the Commonwealth, and
this Act is cumulative to any such powers; however, the borrowing of money or issuance of bonds under
the provisions of this Act need not comply with the requirements of any other law applicable to the
issuance of bonds, notes, or other obligations. This Act does and shall be construed to provide a
complete, additional, and alternative method for the doing of the things authorized hereby and shall be
regarded as supplemental and additional to powers conferred by other laws. The provisions of this Act
are severable, and if any of its provisions shall be held unconstitutional by any court of competent
jurisdiction, the decision of such court shall not affect or impair any of the other provisions of this Act.

§ 25 Application of local ordinances, service charges, and taxes upon leaseholds.

Nothing herein contained shall be construed to exempt the Authority's property from any
applicable zoning, subdivision, erosion and sediment control, and fire prevention codes or from
building regulations of a political subdivision in which such property is located. Nor shall anything
herein contained exempt the property of the Authority from any service charge authorized by the
General Assembly pursuant to Article X, Section 6 (g) of the Constitution of Virginia.

§ 26 Existing contracts. Leases, franchises, etc., not impaired.

No provisions of this Act shall relieve, impair, or affect any right, duty, liability, or obligation arising
out of any contract, concession, lease, or franchise now in existence except to the extent that such contract,
concession, lease, or franchise may permit. Notwithstanding the foregoing provision of this section, the
Authority may renegotiate, renew, extend the term of, or otherwise modify at any time any contract,
concession lease, or franchise now in existence in such manner and on such terms and conditions as it may
deeem appropriate, provided that the operator of or under said contract, concession, lease, or franchise
consents to said renegotiation, renewal, extension, or modification.
§ 27 Employees of the Authority.
A. Employees of the Authority shall be employed on such terms and conditions as are established by the Authority. The Board of the Authority shall develop and adopt personnel rules, policies, and procedures to give its employees grievance rights, ensure that the employment decisions shall be based upon the merit and fitness of applicants, and prohibit discrimination because of race, religion, color, sex, or national origin.

B. In cooperation with the Board, each participating political subdivision shall determine which of its current positions will remain under their individual employ and which will be recreated as part of the Authority. Any employee of Virginia Tech who (i) is not offered a position with the Authority for which the employee is qualified or is offered a position that requires relocation or a reduction in salary or (ii) is not offered the opportunity to remain employed with Virginia Tech shall be eligible for the severance benefits conferred by the provisions of the Workforce Transition Act (§ 2.2-3200 et seq.) of the Code of Virginia. Any employee of Virginia Tech who accepts employment with the Authority shall not be considered to be involuntarily separated from state employment and shall not be eligible for the severance benefits conferred by the Workforce Transition Act.

C. Notwithstanding any other provision of law to the contrary, any person whose employment is recreated in the Authority as a result of this Act and who is a member of any plan for providing health insurance coverage pursuant to Chapter 28 (§ 2.2-2818 et seq.) of Title 2.2 of the Code of Virginia shall be eligible to continue to be a member of such health insurance plan. Notwithstanding subsection A of § 2.2-2818 of the Code of Virginia, the Authority shall pay the employer contribution, the amount of which is determined by negotiated agreement with the provider, of the costs of providing health insurance coverage to its employees who elect to continue to be members of the state employees' insurance plan. Alternatively, an employee may elect to become a member of any health insurance plan established by the Authority. The Authority is authorized to (i) establish a health insurance plan for the benefit of its employees and (ii) enter into agreements with the Department of Human Resources Management providing for the coverage of its employees under the state employees' health insurance plan, provided that such agreement shall require the Authority to pay the costs described above of providing health insurance coverage under such a plan.

D. Notwithstanding any other provision of law to the contrary, any person whose employment is transferred to the Authority as a result of this Act and who is a member of the Virginia Retirement System, or other retirement plan as authorized by Article 4 (§ 51.1-125 et seq.) of Chapter 1 of Title 51.1 of the Code of Virginia, shall continue to be a member of the Virginia Retirement System or other such authorized retirement plan under the same terms and conditions as if no transfer had occurred. Alternatively, such employee may elect, during an open enrollment period, to become a member of the retirement program established by the Authority for the benefit of its employees by transferring assets equal to the value to the actuarially determined present value of the accrued basic benefit as of the transfer date. The Authority shall reimburse the Virginia Retirement System for the actual cost of actuarial services necessary to determine the present value of the accrued basic benefit of employees who elect to transfer to the Authority's retirement plan. The following rules shall apply:

1. With respect to any transferred employee who elects to remain a member of the Virginia Retirement System or other such authorized retirement plan, the Authority shall collect and remit any employer and employee contributions to the Virginia Retirement System or other such authorized retirement plan for retirement for such transferred employees.

2. Transferred employees who elect to become members of the retirement program established by the Authority for the benefits of its employees shall be given full credit for their creditable service as defined in § 51.1-124.3 of the Code of Virginia, vesting and benefit accrual under the retirement program established by the Authority. For any such employee, employment with the Authority shall be treated as employment with any nonparticipating employer for purposes of the Virginia Retirement System or other retirement plan as authorized by Article 4 of Chapter 1 of Title 51.1 of the Code of Virginia.

3. For transferred employees who elect to become members of the retirement program established by the Authority, the Virginia Retirement System or other such authorized plan shall transfer to the retirement plan established by the Authority assets equal to the actuarially determined present value of the accrued basic benefit as of the transfer date. For purposes hereof, the basic benefits shall be the benefit accrued under the Virginia Retirement System or other such authorized retirement plan, based on creditable service and average final compensation as defined in § 51.1-124.3 of the Code of Virginia and determined as of the transfer date. The actuarial present value shall be determined on the same basis, using the same actuarial factors and assumptions used in determining the funding needs of the Virginia Retirement System or other such authorized retirement plan, so that the transfer of assets to the retirement plan established by the Authority will have no effect on the funded status and financial stability of the Virginia Retirement System or other such authorized retirement plan.

§ 28 Withdrawal of membership.
A participating political subdivision may withdraw its membership in the Authority at the end of any fiscal year if the withdrawing participating political subdivision has given notice to the Authority and all other participating political subdivisions of its intention to withdraw at least one year before the end of such fiscal year and the withdrawing participating political subdivision has paid in full its share of the annual deficit Annual Contribution, if any, provided that no participating political subdivision may withdraw its membership in the Authority if the Authority has any outstanding debt without written approval of each participating political subdivision. As used in this section, the term "debt" shall mean a monetary obligation, whether general or limited in any way, to repay a loan or bond, or any long-term obligation, whether absolute or contingent in any way, to refund or reimburse any agency or entity for grant funds received by the Authority.

§ 29 Dissolution of Authority.

Whenever it shall appear to the Board or to all participating political subdivisions that the need for the Authority no longer exists, all participating political subdivisions may petition the Circuit Court of Montgomery County, Virginia, for the dissolution of the Authority. If the court determines that the need for the Authority as set forth in this Act no longer exists and that all debts and other obligations of any kind have been fully paid or provided for:

1. The Court shall enter an order dissolving the Authority; and
2. The remaining assets of the Authority shall be distributed to the participating political subdivisions in proportion to their respective shares of the annual deficit Annual Contribution less any amounts owed to the Authority by such participating political subdivision.

Each participating political subdivision and all holders of the Authority's bonds shall be made parties to any such proceeding and shall be given notice as provided by law. Any party defendant may reply to such petition at any time within six months after the filing of the petition. An appeal from the final judgment of the court shall lie to the Supreme Court of Virginia.
In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university subsequently conducted a program and facility study that identified a renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs. This work resulted in a placeholder project for the improvements, titled Student Wellness Improvements, on the university’s 2018-2024 Six-Year Capital Outlay Plan approved by the Board of Visitors at its April 3, 2017 meeting. The university continued work on the program, funding plan, schedule, and costs and is now ready to request authorization to proceed with the full project.

The existing War Memorial Hall is approximately 201,000 gross square feet. The proposed improvements include renovating approximately 175,000 gross square feet, demolition of approximately 26,000 gross square feet of the east side of the building, and a 38,000 gross square foot replacement on the east side of the building. The final size of the facility will be approximately 213,000 gross square feet. The improvements will provide space for the programs described below, will address deferred maintenance and code requirements, and will install air conditioning to the building.

- Cook Counseling Center and Hokie Wellness will be located on the third floor creating an optimal environment for coordination of prevention, educational intervention, and treatment services. Relocating Cook Counseling from McComas Hall will consolidate offices currently located in McComas Hall and off campus leased space in one central location in War Memorial Hall, making it easier for students to access services before, after, or between classes. Cook Counseling will include approximately 40 interview offices, three group session rooms, and a waiting room for up to 50 patients. Hokie Wellness will include offices, training and educational space, individual and group consultation rooms, and a recovery community lounge.

- Recreational Sports will be located on the first and second floors and include five basketball courts, four racquetball courts, two squash courts, an expanded weight and cardio area, multipurpose rooms, a performance laboratory, and office space for recreation sports administration.

- The department of Human Nutrition, Foods, and Exercise (HNFE) will shift to the second floor from the third floor to make space for counseling services. The space will include research clinic laboratory with three procedure rooms, two consultation rooms, food preparation area, biochemistry laboratory, metabolic work area, and open metabolic areas.
The School of Education will remain in the historic front section of War Memorial Hall with renovated and updated offices, three large classrooms, two small classrooms, conference rooms, computer laboratory, and research space.

The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to 19,000 square feet in the area vacated by counseling services to accommodate student health services. A reconfiguration will alleviate the cramped conditions that currently exist in the Schiffert Health Center and address privacy and confidentiality protocols for students. The renovation creates additional general medicine exam rooms, additional practitioner offices, renovated x-ray room, procedure room, new airborne isolation procedure room, two phlebotomy stations, two allergy exam rooms, two women's health exam rooms, and three waiting areas.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. As with all self-supporting projects, the university has developed a financing plan to provide assurance regarding the financial feasibility of this project. The total project funding is $63 million and calls for the use of debt which may be serviced from Student Health and Recreational Sports auxiliaries and an internal lease for the School of Education program. Any cash designated for the project accumulated prior to the issuance of permanent debt may be used directly for project costs and to lower the estimated total debt issuance. Temporary financing will be secured to cover project costs until permanent debt is issued.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $63 million authorization to complete the Student Wellness Improvements projec
RESOLUTION OF A CAPITAL PROJECT FOR
STUDENT WELLNESS IMPROVEMENTS PROJECT

WHEREAS, the Board of Visitors approved a $2.757 million planning project at its March 2016 meeting to support planning work on a comprehensive student wellness services project; and,

WHEREAS, a major renovation of War Memorial Hall along with a minor renovation to McComas Hall has been identified as the desired solution to address the needs for student health services, counseling services, and indoor recreation; and,

WHEREAS, the project scope includes 213,000 gross square feet of improvements and expansion to War Memorial Hall and renovations of 19,000 gross square feet to Schiffert Health Center; and,

WHEREAS, the scope includes addressing deferred maintenance, code compliance, and installing air conditioning to War Memorial Hall; and,

WHEREAS, the total project budget is $63 million and the university has developed a 100 percent nongeneral fund resource plan for the project; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded major capital outlay projects.

NOW, THEREFORE BE IT RESOLVED, that the university be authorized to move forward with a $63 million authorization for the Student Wellness Improvements project and to secure temporary short-term financing through any borrowing mechanism that prior to such borrowing has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $63 million authorization, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to complete the Student Wellness Improvements project be approved.

November 6, 2017
### Closed Session Agenda

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

Duck Pond Room, The Inn at Virginia Tech  
8:00 a.m. – 8:15 a.m.  

November 5, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion for Closed Session</td>
<td>Ms. Long</td>
</tr>
<tr>
<td>2. Update on Fraud, Waste, and Abuse Cases</td>
<td>Ms. Kurek, Mr. Daniels</td>
</tr>
<tr>
<td>3. Discussion with the Director of Internal Audit</td>
<td>Ms. Kurek</td>
</tr>
</tbody>
</table>

*Requires full Board approval.*
Compliance, Audit, and Risk Closed Session

1. **Motion for Closed Session:** Motion to begin closed session.

2. **Update on Fraud, Waste, and Abuse Cases:** The Committee will receive an update on outstanding fraud, waste, and abuse cases.

3. **Discussion with the Director of Internal Audit:** The Director of Internal Audit will discuss audits of specific departments and units where individual employees were identified.
Open Session Agenda

COMPLIANCE, AUDIT, AND RISK COMMITTEE

Solitude Room, The Inn at Virginia Tech
8:15 a.m. – 9:45 a.m.

November 5, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion to Reconvene in Open Session</td>
<td>Mr. Mills</td>
</tr>
<tr>
<td>2. Welcome and Introductory Remarks</td>
<td>Mr. Kazmi</td>
</tr>
<tr>
<td>3. Consent Agenda</td>
<td>Mr. Kazmi</td>
</tr>
<tr>
<td>a. Approval of the Minutes of the September 10, 2017 Meeting</td>
<td></td>
</tr>
<tr>
<td>b. Update of Responses to Open Internal Audit Comments</td>
<td></td>
</tr>
<tr>
<td>c. University Internal Audit Status Report</td>
<td></td>
</tr>
<tr>
<td>d. Acceptance of Report Issued by University Internal Audit</td>
<td></td>
</tr>
<tr>
<td>i. Virginia-Maryland College of Veterinary Medicine Compliance Review</td>
<td></td>
</tr>
<tr>
<td>4. Review and Acceptance of the Auditor of Public Accounts</td>
<td>Mr. Reinholtz</td>
</tr>
<tr>
<td>Financial Statement Audit and Management Letter for the June 30, 2017 Audit</td>
<td></td>
</tr>
<tr>
<td>5. Review and Approval of Charters</td>
<td>Ms. Kurek</td>
</tr>
<tr>
<td>6. Enterprise Risk Management Program</td>
<td>Ms. Kurek</td>
</tr>
<tr>
<td>7. University Compliance Program</td>
<td>Ms. Kurek</td>
</tr>
<tr>
<td>8. Title IX Update</td>
<td>Ms. Heidbreder</td>
</tr>
<tr>
<td>9. Discussion of Future Topics</td>
<td>Mr. Kazmi</td>
</tr>
</tbody>
</table>
Open Session Briefing Report

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

Compliance, Audit, and Risk Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Welcome and Introductory Remarks:** The chair of the Compliance, Audit, and Risk Committee will provide opening remarks.

3. **Consent Agenda:** The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

   a. **Approval of Minutes of the September 10, 2017 Meeting:** The Committee will review and approve the minutes of the September 10, 2017 meeting.

   b. **Update of Responses to Open Internal Audit Comments:** The Committee will review the university’s update of responses to all previously issued internal audit reports. As of June 30, 2017, the university had 11 open recommendations. Ten audit comments have been issued during the first quarter of the fiscal year. As of September 30, 2017, the university has addressed nine comments, leaving 12 open recommendations in progress.

   c. **University Internal Audit Status Report:** The committee will review University Internal Audit’s Status Report. University Internal Audit has completed three percent of its audit plan in accordance with the fiscal year 2017-18 annual audit plan.

   d. **Acceptance of Report Issued by University Internal Audit:** The following report was issued since the September 10, 2017 meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. As noted above, University Internal Audit conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

      i. Virginia-Maryland College of Veterinary Medicine Compliance Review: The audit received a rating of significant improvements are needed. Audit
recommendations were issued to management where opportunities for further improvement were noted in the areas of fiscal responsibility, wage payroll, leave reporting, P14 appointments, expenditures, and funds handling. Additionally, an observation for central administration was noted in the area of P-14A forms for Human Resources.

4. **Review and Acceptance of the Auditor of Public Accounts Financial Statement Audit and Management Letter for the June 30, 2017 Audit:** The Committee will receive a report from Mr. Reinholtz, Audit Director, Auditor of Public Accounts, on the status of the university’s financial statement audit and management letter for the fiscal year ended June 30, 2017.

5. **Review and Approval of Audit Charters:** The Committee will review the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance in accordance with professional standards. After conducting a thorough review, the Office of Audit, Risk, and Compliance will recommend modifications to the charters reflecting the reorganization of the Board of Visitors committee structure.

6. **Enterprise Risk Management Program:** The Committee will receive an overview of the proposed Enterprise Risk Management (ERM) framework and an update on the efforts at the university to establish an ERM program.

7. **University Compliance Program:** The Committee will receive a report on the university’s efforts to establish a compliance oversight committee to coordinate best practices regarding risk assessment and monitoring activities, including the committee structure and charter.

8. **Title IX Update:** The Committee will receive an update on changes regarding Title IX guidance. Under Title IX of the Education Amendments of 1972 and its implementing regulations, an institution that receives federal funds must ensure that no student suffers a deprivation of her or his access to educational opportunities on the basis of sex. On September 22, 2017, the U.S. Department of Education Office for Civil Rights (OCR) released new guidance in the form of a Dear Colleague Letter and questions-and-answer document (Q&A) on Campus Sexual Misconduct and withdrew the 2011 Dear Colleague Letter on Sexual Violence and related 2014 Q&A document. This guidance provides information about how OCR will assess a school’s compliance with Title IX.
9. **Discussion of Future Topics:** The Committee will discuss topics to be covered in future committee meetings.
Open Joint Session Agenda

BUILDINGS AND GROUNDS COMMITTEE
AND
COMPLIANCE AUDIT AND RISK COMMITTEE

The Inn at Virginia Tech – Solitude
9:45 a.m. – 10:00 a.m.
November 5, 2017

<table>
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<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
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Open Session

1. **2016 Jeanne Clery Act Report on Campus Security and Fire Safety:** The Committees will review the annual campus security and fire safety report for Virginia Tech that is compiled and published by the Virginia Tech Police Department. This annual report is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The purpose of the report is to provide information about security on campus, to include: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides.
### Agenda Item | Reporting Responsibility
---|---
1. Motion for Closed Session | Ms. Harris
* 2. Ratification of Personnel Changes Report | Mr. Shelton
* 3. Approval of 2017-18 National Distinction Program | Mr. Shelton

* Requires full Board approval.
Closed Session

1. **Motion for Closed Session:** Motion to begin closed session.

* 2. **Ratification of Personnel Changes Report:** The Committee will review and take action on the quarterly personnel changes report.

* 3. **Approval of 2017-18 National Distinction Program:** The Committee will review and take action on the 2017-18 National Distinction Program. The National Distinction Program, approved by the Board in June 2017, was established to provide opportunity to recognize faculty with demonstrated national distinction and exceptional performance.

* Requires full Board approval.
## Agenda Item

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion to Reconvene in Open Session</td>
<td>Ms. James</td>
</tr>
<tr>
<td>2. Opening Remarks</td>
<td>Mr. Valeiras</td>
</tr>
<tr>
<td>3. Consent Agenda</td>
<td>Mr. Valeiras</td>
</tr>
<tr>
<td>a. Approval of Items Discussed in Closed Session</td>
<td>Mr. Valeiras</td>
</tr>
<tr>
<td>b. Approval of Minutes of the Sept. 11, 2017 Meeting</td>
<td></td>
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<tr>
<td>c. Update on Advancement</td>
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<tr>
<td>d. Annual Write-off of Delinquent Accounts</td>
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<td>e. Approval of Pratt Fund Program and Expenditures Report</td>
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<tr>
<td>4. Report on Investment of Nongeneral Funds</td>
<td>Mr. Shelton</td>
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<tr>
<td>5. Annual Report on Research</td>
<td>Mr. Shelton</td>
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<tr>
<td>Dr. Mayer</td>
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<tr>
<td>6. Annual Report on the University’s Student Financial Aid Resources</td>
<td>Mr. Shelton</td>
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<tr>
<td>Mr. Hodge</td>
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<td>Dr. Havens</td>
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<tr>
<td>7. Report on Cost Containment and Efficiencies</td>
<td>Mr. Shelton</td>
</tr>
<tr>
<td>8. Presentation on Resource Development</td>
<td>Mr. Shelton</td>
</tr>
<tr>
<td>Mr. Hodge</td>
<td></td>
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<tr>
<td>9. Annual Report on University Debt Ratio and Debt Capacity</td>
<td>Mr. Shelton</td>
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<tr>
<td>Mr. Broyden</td>
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<td>Mr. Cusimano</td>
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<tr>
<td>10. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine</td>
<td>Mr. Shelton</td>
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<tr>
<td>Mr. Hodge</td>
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<tr>
<td>11. Approval of Year-to-Date Financial Performance Report (July 1, 2017 – September 30, 2017)</td>
<td>Mr. Hodge</td>
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<tr>
<td>Mr. Broyden</td>
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<tr>
<td>12. Other Business</td>
<td>Mr. Valeiras</td>
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</tbody>
</table>

* Requires full Board approval.
Finance Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Opening Remarks**

3. **Consent Agenda:** The Committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. Approval of Items Discussed in Closed Session.
   
   b. Approval of Minutes of the September 1, 2017 Meeting
   
   c. Update on Advancement: Advancement will provide quarterly updates to the Committee on their fundraising efforts.
   
   d. Annual Write-off of Delinquent Accounts: As of June 30, 2017, the amount of write-offs of delinquent accounts totaled $326,653 which represents 0.03 percent of the 2016 annual operating revenues of $1.02 billion. This current year write-off is consistent with the total write-off amounts in recent years.
   
   e. Approval of Pratt Fund Program and Expenditure Report: The Pratt Fund provides funding for programs in both the College of Engineering and Department of Animal Nutrition in the College of Agriculture and Life Sciences. For fiscal year 2016-17, the College of Engineering had total expenditures of $961,141 and the Animal Nutrition had total expenditures of $849,745.

4. **Report on Investment of Nongeneral Funds:** The Committee will receive a report on the investment of nongeneral funds.

5. **Annual Report on Research:** The Committee will receive a report from the Vice President for Research and Innovation on the research activities at Virginia Tech.

6. **Annual Report on the University’s Student Financial Aid Resources:** The Committee will receive a comprehensive report on the university’s scholarship and financial aid program. In its Management Agreement with the Commonwealth, the
university affirmed its commitment to increase the support for student financial aid. The university continues to proactively work to ensure access and affordability. The amount of total student financial aid awarded increased from $446.2 million in fiscal year 2016 to $462.2 million in fiscal year 2017.

7. **Report on Cost Containment and Efficiencies**: The Committee will receive a presentation highlighting current cost containment efficiencies and related metrics, as well as future cost containment opportunities. The university will review with the Committee plans for future reporting of efficiency initiatives to the Board.

8. **Presentation on Resource Development**: The Committee will receive information on the resource development scenarios and projections developed by the university.

9. **Annual Report on University Debt Ratio and Debt Capacity**: The Committee will receive a report on the university's debt ratio and debt capacity. At the conclusion of fiscal year 2016-17, outstanding long-term debt of the university totaled $494.2 million with a debt ratio of 3.67 percent. The university proposes the continuation of the five percent cap on the debt ratio for future years.

* 10. **Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine**: The Committee will review for approval a resolution for the integration of the Virginia Tech Carilion School of Medicine.

* 11. **Approval of Year-to-Date Financial Performance Report (July 1, 2017 – September 30, 2017)**: The Committee will review for approval the Year-to-Date Financial Performance Report for July 1, 2017 – September 30, 2017. For the first quarter, budget adjustments were made to reflect revisions to projected revenues and expenditures. The annual tuition and fees budget was increased by $10.3 million for the finalization of the budgets for tuition and fees, driven by higher than projected enrollment for Fall 2017.

12. **Other Business**: The Committee will discuss other topics as needed.

*Requires full Board approval.*
**Open Joint Session Agenda**

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

Solitude Room, The Inn at Virginia Tech
11:15 a.m. – 11:30 a.m.

November 6, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 1. Approval of Resolution for Student Wellness Improvements</td>
<td>Mr. Shelton Dr. Wilson</td>
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</tbody>
</table>

* Requires full Board approval.
OPEN SESSION

1. **Approval of Resolution for Student Wellness Improvements:** The Committees will review for approval a resolution for Student Wellness Improvements. In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university conducted a program and facility study and identified the renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs.

The proposed improvements to War Memorial Hall will provide updated space for Cook Counseling Center and Hokie Wellness, the department of Human Nutrition, Foods, and Exercise (HNFE), Recreation Sports, and School of Education for running programmatic activities to support and promote student wellness, instruction, and research. The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to accommodate student health services.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. This request is for a $63 million authorization to complete the Student Wellness Improvements project.

* Requires full Board approval.
RESOLUTION TO INTEGRATE THE VIRGINIA TECH CARILION SCHOOL OF MEDICINE INTO VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

WHEREAS, Virginia Polytechnic Institute and State University (“Virginia Tech”) and Carilion Clinic have a long history of collaborative research and development of programs that are beneficial to both parties, as well as a history of strengthening the state, local, and surrounding Southwest Virginia economies with increased research funding and private investment; and

WHEREAS, the parties established a medical school titled the Virginia Tech Carilion School of Medicine to assist in the alleviation of the shortage of physician specialists in the Southwest Virginia region; and

WHEREAS, consistent with Virginia Tech’s strategic initiatives, biomedical education and research are areas of special interest for the continued growth of Virginia Tech; and

WHEREAS, on August 29, 2016, the Virginia Tech Board of Visitors affirmed its intent to acquire and integrate the Virginia Tech Carilion School of Medicine into Virginia Tech as its ninth college; and

WHEREAS, the acquisition and integration of the Virginia Tech Carilion School of Medicine into Virginia Tech requires notification, review, and approval by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the State Council of Higher Education for Virginia (SCHEV), the Virginia Tech Board of Visitors, the Carilion Clinic Board of Directors, and the Virginia Tech Carilion School of Medicine Board of Directors, and other accrediting or regulatory bodies, as required;

NOW, THEREFORE, BE IT RESOLVED that effective July 1, 2018, the Virginia Tech Carilion School of Medicine will be acquired and fully integrated into Virginia Polytechnic Institute and State University as its ninth college.

RECOMMENDATION:

That the resolution expressing the intent to integrate the Virginia Tech Carilion School of Medicine into Virginia Tech be approved.

November 6, 2017
The Financial Performance Report of income and expenditures is prepared from two sources: actual accounting data as recorded at Virginia Tech and the annual budgets which are also recorded in the university accounting system. The actual accounting data reflect the modified accrual basis of accounting, which recognizes revenues when received rather than when earned and commitments to buy goods and services as encumbrances when obligated and as an expenditure when paid. The Original Budget was approved by the Board of Visitors at the June meeting. The Adjusted Budget reflects adjustments to incorporate actual experience or changes made during the fiscal year. These changes are presented for review and approval by the Finance and Resource Management Committee and the Board of Visitors through this report. Where adjustments impact appropriations at the state level, the university coordinates with the Department of Planning and Budget to ensure appropriations are reflected accurately.

The July to September 2017-18 budget (year-to-date) is prepared from historical data which reflects trends in expenditures from previous years as well as known changes in timing. Differences between the actual income and expenditures and the year-to-date budget may occur for a variety of reasons, such as an accelerated or delayed flow of documents through the accounting system, a change in spending patterns at the college level, or increases in revenues for a particular area.

Quarterly budget estimates are prepared to provide an intermediate measure of income and expenditures. Actual revenues and expenditures may vary from the budget estimates. The projected year-end budgets are, however, the final measure of budgetary performance.
Dollars in Thousands

<table>
<thead>
<tr>
<th></th>
<th>July 1, 2017 to September 30, 2017</th>
<th>Annual Budget for 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Budget</td>
</tr>
<tr>
<td><strong>Educational and General Programs</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>University Division</strong></td>
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<tr>
<td>Revenues</td>
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<tr>
<td>General Fund</td>
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<td>$45,719</td>
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<td>Academic Programs</td>
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<td>Revenues</td>
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<td>General Fund</td>
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<td>Federal Appropriation</td>
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<td>All Other Income</td>
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<td>NET</td>
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<td><strong>Auxiliary Enterprises</strong></td>
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<td></td>
</tr>
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<td>Revenues</td>
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<td>Reserve Drawdown (Deposit)</td>
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<td><strong>Student Financial Assistance</strong></td>
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<td>Revenues</td>
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<td><strong>All Other Programs</strong></td>
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<tr>
<td>Revenue</td>
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<td>Expenses</td>
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<td>Reserve Drawdown (Deposit)</td>
<td>-733</td>
<td>-457</td>
</tr>
<tr>
<td>NET</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total University</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>$553,078</td>
<td>$560,972</td>
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<tr>
<td>Expenses</td>
<td>-398,082</td>
<td>-422,647</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-19,868</td>
<td>1,566</td>
</tr>
<tr>
<td>NET</td>
<td>$135,128</td>
<td>$139,891</td>
</tr>
</tbody>
</table>

* All Other Programs include federal work study, surplus property, and unique military activities.
1. Tuition and Fee revenue collections are behind historical projections due to the timing of tuition collections.

2. Activity levels are lower than projected in Continuing Education – Language and Culture Institute programs.

3. Academic program expenditures exceed projections due to timing of research programs and start-up expenditures.

4. Support program expenditures exceed projections due to costs associated with renovations in the Library for digital liberal arts and social sciences hub as well as the continued investment in diversity and inclusion programs which were committed early in the fiscal year.

5. The budget for federal revenue is established to match projected allotments from the federal government that are expected to be drawn down during the state fiscal year. All expenses in federal programs are covered by drawdowns of federal revenue up to allotted amounts. Federal revenue in the Cooperative Extension/Agriculture Experiment Station Division was greater than the projected budget due to the timing of federal draw that were requested in 2016-17, but received in 2017-18.

6. Quarterly and projected annual variances are explained in the Auxiliary Enterprises section of this report.

7. Historical patterns have been used to develop a measure of the revenue and expenditure activity for Sponsored Programs. Actual revenues and expenses may vary from the budget estimates because projects are initiated and concluded on an individual basis without regard to fiscal year. Total sponsored research revenues and expenses are less than projected. Total sponsored research expenditures are 0.5% greater than September 30, 2016.

8. Expenses for All Other Programs were less than projected due to timing of surplus property expense activity.

9. The annual budget for Tuition and Fees has been increased $1.7 million for the finalization of the budgets for tuition and E&G fees. The budget for Tuition and Fees has been increased $8.6 million due to higher than projected undergraduate enrollment, lower than projected enrollment in the graduate programs, and a decrease in Summer session revenues. The corresponding expenditure budgets have been adjusted accordingly.

10. The All Other Income revenue budget for the University Division has been decreased $1.4 for budget finalizations in Sales and Services and Continuing Education. The corresponding expenditure budgets have been adjusted accordingly.

11. The General Fund revenue budget was increased $45,441 for adjustments to the state central fund distribution. The corresponding expenditure budgets have been adjusted accordingly.

12. The Sponsored Programs revenue and expense budgets were increased $705,132 to finalize budgets.

13. During budget finalizations, the Student Financial Assistance general funds revenue and expense budgets were increased $687,145. In the first quarter of 2017-18, the Student Financial Assistance revenue and expenditure budgets were increased $384,000 to facilitate enrollment growth beyond the originally planned enrollment growth.

14. The projected annual budgets for All Other Programs was increased $2.2 million to finalize budgets and $454,293 for outstanding 2016-17 commitments that were initiated but not completed before June 30, 2017.
<table>
<thead>
<tr>
<th>services</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td>Residence and Dining Halls *</td>
<td>$46,350</td>
<td>$45,173</td>
<td>$1,177 (1)</td>
<td>$120,157</td>
<td>$120,157</td>
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<tr>
<td>Revenues</td>
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<td>-29,534</td>
<td>354</td>
<td>-117,364</td>
<td>-121,856</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-17,170</td>
<td>-15,639</td>
<td>-1,531</td>
<td>-2,793</td>
<td>1,699</td>
<td>4,492 (6,7)</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Parking and Transportation</td>
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<td>$6,338</td>
<td>$139</td>
<td>$13,704</td>
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<tr>
<td>Revenues</td>
<td>-2,295</td>
<td>-2,472</td>
<td>177</td>
<td>-13,266</td>
<td>-13,473</td>
<td>-207 (6,7)</td>
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<td>Reserve Drawdown (Deposit)</td>
<td>-4,182</td>
<td>-3,866</td>
<td>-316</td>
<td>-438</td>
<td>-231</td>
<td>207 (6,7)</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Telecommunications Services</td>
<td>$5,972</td>
<td>$6,018</td>
<td>$-46</td>
<td>$22,087</td>
<td>$22,087</td>
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<tr>
<td>Revenues</td>
<td>-5,999</td>
<td>-5,902</td>
<td>-97</td>
<td>-23,161</td>
<td>-23,520</td>
<td>-359 (6,7,8)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>27</td>
<td>-116</td>
<td>143</td>
<td>1,074</td>
<td>1,433</td>
<td>359 (6,7,8)</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>University Services * **</td>
<td>$23,793</td>
<td>$23,564</td>
<td>$229</td>
<td>$48,521</td>
<td>$48,521</td>
<td>$0</td>
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<tr>
<td>Revenues</td>
<td>-15,493</td>
<td>-17,788</td>
<td>2,295 (2)</td>
<td>-47,655</td>
<td>-49,522</td>
<td>-1,867 (5,6,7,9)</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-8,300</td>
<td>-5,776</td>
<td>-2,524</td>
<td>-866</td>
<td>-2,042</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Intercollegiate Athletics *</td>
<td>$25,989</td>
<td>$25,572</td>
<td>$417</td>
<td>$69,283</td>
<td>$69,283</td>
<td>$0</td>
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<tr>
<td>Revenues</td>
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<td>-20,936</td>
<td>-921 (3)</td>
<td>-68,903</td>
<td>-67,241</td>
<td>1,662 (5,6,7,10)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
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<td>-4,636</td>
<td>504</td>
<td>-380</td>
<td>-2,042</td>
<td>-1,662 (5,6,7,10)</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Electric Service *</td>
<td>$7,152</td>
<td>$7,326</td>
<td>$-174</td>
<td>$36,061</td>
<td>$34,720</td>
<td>$-1,341 (11)</td>
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<tr>
<td>Revenues</td>
<td>-8,764</td>
<td>-8,781</td>
<td>17</td>
<td>$35,531</td>
<td>-34,562</td>
<td>969 (6,7,11)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>1,612</td>
<td>1,455</td>
<td>157</td>
<td>-530</td>
<td>-158</td>
<td>372 (6,7,11)</td>
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<tr>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Inn at Virginia Tech/Skelton Conf. Center</td>
<td>$4,476</td>
<td>$3,879</td>
<td>$597 (4)</td>
<td>$11,855</td>
<td>$11,955</td>
<td>$100 (12)</td>
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<tr>
<td>Revenues</td>
<td>-4,016</td>
<td>-4,018</td>
<td>2</td>
<td>-11,799</td>
<td>-12,487</td>
<td>-688 (5,6,12)</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-460</td>
<td>139</td>
<td>-599</td>
<td>-56</td>
<td>532</td>
<td>588 (5,6,12)</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Other Enterprise Functions ***</td>
<td>$5,418</td>
<td>$5,252</td>
<td>$166</td>
<td>$11,645</td>
<td>$11,675</td>
<td>$30 (13)</td>
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<tr>
<td>Revenues</td>
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<td>-4,900</td>
<td>132</td>
<td>-8,938</td>
<td>-19,795</td>
<td>-10,857 (5,6,7,13)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-650</td>
<td>-352</td>
<td>-298</td>
<td>-2,707</td>
<td>8,120</td>
<td>10,827 (5,6,7,13)</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL AUXILIARIES</td>
<td>$125,627</td>
<td>$123,122</td>
<td>$2,505</td>
<td>$333,313</td>
<td>$332,102</td>
<td>$-1,211</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-33,255</td>
<td>-28,791</td>
<td>-4,464</td>
<td>-6,696</td>
<td>10,354</td>
<td>17,050</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

* University Systems include Dormitory and Dining Hall System, University Services System, Intercollegiate Athletics System, and Electric Service System. The Systems were created to provide assurance to bond holders that system revenues are pledged for the payment of debt service and to allow for dedicated repair and replacement that are not subject to lien of any creditor of the university.

** University Services System includes Career Services, Center for the Arts, Health Services, Recreational Sports, Student Centers & Activities, Student Organizations, and the VT Rescue Squad.

*** Other Enterprise Functions include Golf Course, Hokie Passport, Library Café, Library Photocopy, Licensing & Trademark, Little Hokie Hangout, New Student and Family Programs, Pouring Rights, Printing Services, Software Sales, Student Athlete Academic Support Services (SAASS), Tailor Shop and Clearing Accounts.
AUXILIARY ENTERPRISE BUDGET

1. Revenues in Residence and Dining Halls are higher than projected due to dorm occupancy and Dining self-generated revenue being greater than planned.

2. Expenses for the University Services System are lower than projected due to the timing of expenses.

3. Expenses for Intercollegiate Athletics are higher than projected due to higher than anticipated sport operating and project expenses. A second quarter budget adjustment request is anticipated.

4. Revenues for the Inn at Virginia Tech and Skelton Conference Center are higher than projected due to timing of revenues.

5. The projected annual expense and reserve budgets for Auxiliary Enterprises were adjusted $77,093 for state compensation actions for high-turnover positions.

6. The projected annual expense budget for Auxiliary Enterprises was adjusted for $5.9 million in outstanding 2016-17 commitments and projects that were initiated but not completed before June 30, 2017. This amount includes $1.0 million for Residence Halls, $3.2 million in Dining Hall commitments and projects, and $0.3 million for Electric Service. The remainder is spread across the other auxiliary programs.

7. The projected annual expense and reserve budgets for the Auxiliary Enterprises were increased $462,322 for the auxiliary share of the state’s assessment of a one-time Virginia Retirement System (VRS) investment in 2015 which lowered future VRS actuarial rates.

8. The projected annual expense and reserve budgets for Telecommunications Services were increased for enhancement of network security software.

9. The projected annual expense and reserve budgets for the University Services System were adjusted for two additional counseling positions for Cook Counseling Center, Career and Professional Development personnel, and health and recreation sports services in Roanoke.

10. The projected annual expense and reserve draw budgets for Intercollegiate Athletics were decreased $1.1 million for the technical realignment of Student Athlete Academic Support Services.

11. The projected annual revenue and expense budgets for the Electric Services auxiliary were adjusted for decreased 2017-18 cost of wholesale electricity.

12. The projected annual revenue, expense, and reserve budgets for the Inn at Virginia Tech and Skelton Conference Center were increased $776,680 for construction of an outdoor patio.

13. The projected annual revenue, expense, and reserve budget for Other Enterprise Functions were increased for Licensing and Trademark activity, student affairs operating support, and $10.0 million internal financing of board approved Athletics facilities improvements project.
### Capital Outlay Projects

**Authorized as of September 30, 2017**

**Dollars in Thousands**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Expenses</th>
<th>State Support</th>
<th>Nongeneral Revenue</th>
<th>Total Budget</th>
<th>Cumulative Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities</td>
<td>Sep 2013</td>
<td>$6,000</td>
<td>$8</td>
<td>$9,363</td>
<td>-</td>
<td>$9,363</td>
<td>$897</td>
</tr>
<tr>
<td>Renovate Undergraduate Science Laboratories</td>
<td>Jul 2016</td>
<td>6,250</td>
<td>228</td>
<td>-</td>
<td>10,000</td>
<td>10,000</td>
<td>651</td>
</tr>
<tr>
<td>Agriculture Production Facilities</td>
<td>Oct 2016</td>
<td>1,080</td>
<td>128</td>
<td>22,136</td>
<td>-</td>
<td>22,136</td>
<td>149</td>
</tr>
<tr>
<td>Chiller Plant Phase II</td>
<td>Oct 2016</td>
<td>4,040</td>
<td>540</td>
<td>31,024</td>
<td>-</td>
<td>31,024</td>
<td>595</td>
</tr>
<tr>
<td>Health Sciences &amp; Technology</td>
<td>Oct 2016</td>
<td>10,200</td>
<td>-</td>
<td>48,307</td>
<td>17,765</td>
<td>66,072</td>
<td>0</td>
</tr>
<tr>
<td>Holden Hall Renovation</td>
<td>Oct 2016</td>
<td>3,840</td>
<td>253</td>
<td>44,386</td>
<td>-</td>
<td>44,386</td>
<td>1,154</td>
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<tr>
<td>Gas-Fired Boiler at the Central Steam Plant</td>
<td>Apr 2017</td>
<td>3,375</td>
<td>2</td>
<td>6,800</td>
<td>-</td>
<td>6,800</td>
<td>2</td>
</tr>
<tr>
<td>Planning: Intelligent Infrastructure and Construction Complex</td>
<td>Apr 2017</td>
<td>2,880</td>
<td>-</td>
<td>6,000</td>
<td>-</td>
<td>6,000</td>
<td>0</td>
</tr>
<tr>
<td>Planning: Undergraduate Science Laboratory Building</td>
<td>Jul 2017</td>
<td>2,500</td>
<td>-</td>
<td>3,084</td>
<td>-</td>
<td>3,084</td>
<td>0</td>
</tr>
</tbody>
</table>

**Construction Phase**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Expenses</th>
<th>State Support</th>
<th>Nongeneral Revenue</th>
<th>Total Budget</th>
<th>Cumulative Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Reserve</td>
<td>On-going</td>
<td>12,860</td>
<td>1,778</td>
<td>20,297</td>
<td>-</td>
<td>20,297</td>
<td>7,185</td>
</tr>
<tr>
<td>Academic Buildings Renewal</td>
<td>Sep 2013</td>
<td>18,600</td>
<td>3,457</td>
<td>35,029</td>
<td>-</td>
<td>35,029</td>
<td>9,231</td>
</tr>
<tr>
<td>Address Fire Alarm Systems and Access</td>
<td>Jun 2014</td>
<td>1,265</td>
<td>77</td>
<td>4,891</td>
<td>-</td>
<td>4,891</td>
<td>3,301</td>
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**Close-Out**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Expenses</th>
<th>State Support</th>
<th>Nongeneral Revenue</th>
<th>Total Budget</th>
<th>Cumulative Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Building</td>
<td>Dec 2012</td>
<td>1,050</td>
<td>421</td>
<td>42,652</td>
<td>-</td>
<td>42,652</td>
<td>42,023</td>
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<tr>
<td>Biocomplexity Data Center</td>
<td>Sep 2015</td>
<td>900</td>
<td>286</td>
<td>-</td>
<td>5,900</td>
<td>5,900</td>
<td>0</td>
</tr>
<tr>
<td>Eastern Shore AREC Storage Building</td>
<td>Apr 2016</td>
<td>381</td>
<td>292</td>
<td>-</td>
<td>535</td>
<td>535</td>
<td>447</td>
</tr>
</tbody>
</table>

**Total Educational and General Projects**

| | | | | | | | |
|--|--|--|--|--|--|--| |
| $75,221 | $7,469 | $258,085 | $50,084 | $51,090 | $359,259 | $70,670 |
**CAPITAL OUTLAY BUDGET**

**Educational and General Projects**

1. This project is to provide a metabolism research laboratory, an applied reproduction facility, and a building for animal demonstration, handling, and holding spaces. The state authorized design funding effective July 2013 and construction funding effective July 2015. The project design is being modified and rebid a second time because of cost overruns with bids expected due October 2017.

2. This project will renovate seven laboratories within Derring Hall and Hahn Hall to accommodate the increased demand for introductory undergraduate science laboratory classes in biology, chemistry, physics, and microbiology. Working Drawings are underway and construction is expected to begin late fall 2017. The annual budget was adjusted in the first quarter to reflect the Board’s construction authorization at the June 2017 meeting.

3. This project is for the first of two phases to renew the existing facilities for the livestock and poultry programs. This first phase includes an approximate total scope of 126,000 gross square feet of new and renovated facilities at the Blacksburg campus and three nearby university production and research farms. Schematic design is underway.

4. This project continues the strategic infrastructure advancements initiated by the Chiller Plant, Phase I project. This Phase II project includes the upgrade of campus utility systems and addresses several strategic needs for shifting the campus to a lower resource consuming cooling service with improved redundancies. Preliminary design is underway.

5. This project calls for a Public Private Partnership delivery of 139,300 gross square foot research and training building located adjacent to the existing Virginia Tech-Carilion Research Institute facility in Roanoke, Virginia. Major construction is expected to begin in December 2017.

6. This project is for a complete renovation and 60,000 gross square foot expansion of Holden Hall to accommodate the instruction and research programs of Materials Science and Engineering, Mining and Minerals Engineering, and Computer Science Engineering. Schematic design is nearly complete.

7. This project will design, purchase, and install a new Gas-Fired Boiler within the Central Steam Plant. An A/E firm has been selected and preliminary design is underway.

8. This planning project is for Hitt Hall, the Fusion Laboratories, and the Smart Dining Center. The total project funding plan calls for $50 million to cover the three programs.

9. This planning project is for an entirely state funded 102,000 gross square foot science laboratory building adjacent to the new classroom building. The university will temporarily fund planning with nongeneral funds until the project is authorized for construction. This temporary infusion will be reimbursed once the project is fully funded by the state. An A/E firm has been selected and programming is complete.

10. The total project budget amount reflects the balance of Maintenance Reserve appropriation carried forward from fiscal year 2017 and the state’s fiscal year 2018 Maintenance Reserve appropriation of $9.719 million. The state maintenance reserve program requires a biennial budget expenditure of 85 percent, which is $17.3 million for the 2016-18 biennium.

11. This project is for the renovation of three academic buildings located in the core of main campus bordering the Drillfield: Davidson Hall-Front Section, Sandy Hall, and the Liberal Arts Building. The project is under construction with substantial completion expected in summer 2018.

12. This project supports progress on fire alarm systems and accessibility improvements for several E&G buildings. The State has appropriated $4.89 million of General Fund resources for the total project budget of which $4.58 million has been committed to the following nine projects underway or completed: Food Science and Technology Building, Architecture Annex, Wallace Annex, War Memorial Hall, Lane Hall, Whittemore Hall, Patton Hall, Randolph Hall, and Norris Hall.

13. The project is complete and occupied since August 2016. The project may be closed and financial accounts terminated when final invoices are received and paid.

14. The project is complete and occupied since July 2017. The project may be closed and financial accounts terminated when final invoices are received and paid.

15. The project is complete and occupied since August 2017. The project may be closed and financial accounts terminated when final invoices are received and paid.
Capital Outlay Projects Authorized as of September 30, 2017 (Continued)

Dollars in Thousands

<table>
<thead>
<tr>
<th>PROJECT INITIATED</th>
<th>FISCAL YEAR ACTIVITY</th>
<th>TOTAL PROJECT BUDGET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ANNUAL BUDGET</td>
<td>YTD EXPENSES</td>
</tr>
<tr>
<td>AUXILIARY ENTERPRISE PROJECTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Phase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning: Student Wellness Services Jun 2016</td>
<td>$2,259</td>
<td>$195</td>
</tr>
<tr>
<td>Creativity &amp; Innovation District Residence Hall Oct 2016</td>
<td>3,200</td>
<td>84</td>
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<tr>
<td>Dietrick First Floor and Plaza Renovation Sept 2017</td>
<td>500</td>
<td>-</td>
</tr>
<tr>
<td>Construction Phase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance Reserve On-going</td>
<td>7,000</td>
<td>3,280</td>
</tr>
<tr>
<td>Unified Communications &amp; Network Renewal Apr 2012</td>
<td>1,637</td>
<td>7</td>
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<tr>
<td>Lane Substation Expansion Sept 2015</td>
<td>4,000</td>
<td>38</td>
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<tr>
<td>O'Shaughnessy Renovation Apr 2016</td>
<td>16,000</td>
<td>2,790</td>
</tr>
<tr>
<td>Athletic Facilities Improvements Aug 2016</td>
<td>20,000</td>
<td>7,139</td>
</tr>
<tr>
<td>Close-Out</td>
<td></td>
<td></td>
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<tr>
<td>Upper Quad Residential Facilities May 2013</td>
<td>4,668</td>
<td>197</td>
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<tr>
<td>Residential Door Access Improvements Dec 2015</td>
<td>300</td>
<td>102</td>
</tr>
</tbody>
</table>

TOTAL AUXILIARY ENTERPRISE PROJECTS

$59,564 $13,832 $ - $113,337 $109,408 $222,746 $128,613

GRAND TOTAL

$134,785 $21,301 $258,085 $163,421 $160,498 $582,004 $199,284

RECOMMENDATION:

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2017 through September 30, 2017 and the Capital Outlay report be approved.

November 6, 2017
Auxiliary Enterprises Projects

1. This planning project is to explore alternatives and prepare programming documents for an expanded, comprehensive student wellness services solution to meet student expectations and accreditation requirements. The annual budget was adjusted in the first quarter to reflect expected cash outflows for fiscal year 2018.

2. This project is for a new 530 bed residential community that will include academic collaborative spaces to support creativity and innovation activities and the athletics program. A programming study is underway to identify the necessary building requirements, project budget, cost review, delivery method, and schedule. The current project authorization reflects a traditional 350 bed residential program. The authorization will need adjustment based on the results of the programming study.

3. This project includes refurbishing the first floor of Dietrick Hall, inserting a modern food service venue, enclosing 6,400 gross square feet of overhang, and improvements to the outdoor plaza. The budget was established in the first quarter to reflect the Board’s authorization of the project at the September 2017 meeting.

4. Projects are scheduled and funded by the auxiliary enterprises during the annual Auxiliary Enterprise budgeting process. The units prepare five-year plans that outline their highest priority deferred maintenance needs. The annual budget and total project budget reflect the spending plans of the auxiliary units on scheduled maintenance reserve work for fiscal year 2018. The auxiliary maintenance reserve program covers 104 assets with a total replacement value of $1.1 billion.

5. This project includes improvements to four communication infrastructure components: the unified communications system, upgrading the Internet Protocol (IP) Network, upgrading the cable plant, and upgrading equipment rooms in various facilities. This project is being implemented in phases and is anticipated to be complete in spring 2018. The budget was adjusted in the first quarter to reflect expected cash outflows for fiscal year 2018.

6. This project will expand the Lane Substation on Innovation Drive. The project includes the purchase and installation of two 28,000 kilovolt-amps (kVA) transformers, two circuit switchers, six distribution reclosers with space for an additional four reclosers, a control house and associated relay, and control equipment. The project should be complete in late 2018.

7. This project will update O’Shaughnessy Hall’s interior; mechanical, electrical, and plumbing systems; elevators; address other deferred maintenance items as needed; and installing air conditioning. Improvements include converting O’Shaughnessy into a living-learning community to modernize the residential program within the building. Construction started late spring 2017 with occupancy expected fall 2018.

8. This project includes four high priority Athletic facility improvements: Rector Field House, Baseball Facilities, athletic nutrition center, and Tennis Facilities. Construction for Rector Field House and Baseball Facilities is underway with completion of both expected late spring of 2018. Feasibility studies are complete for an athletic nutrition center and Tennis Facilities improvements.

9. This project is substantially complete. The total cost is expected to be $89.4 million. The project may be closed and financial accounts terminated when final invoices are received and paid.

10. This project is substantially complete. The total cost is expected to be $7.735 million. The project may be closed and financial accounts terminated when final invoices are received and paid.
Project Expenses by Activity
First Quarter

Annual Budget
- Design: $26,802 (n=5)
- Construction: $99,469 (n=8)
- Close Out: $8,515 (n=12)

Expenses to Date
- Design: $1,437
- Construction: $18,565
- Close Out: $1,299
In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university subsequently conducted a program and facility study that identified a renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs. This work resulted in a placeholder project for the improvements, titled Student Wellness Improvements, on the university’s 2018-2024 Six-Year Capital Outlay Plan approved by the Board of Visitors at its April 3, 2017 meeting. The university continued work on the program, funding plan, schedule, and costs and is now ready to request authorization to proceed with the full project.

The existing War Memorial Hall is approximately 201,000 gross square feet. The proposed improvements include renovating approximately 175,000 gross square feet, demolition of approximately 26,000 gross square feet of the east side of the building, and a 38,000 gross square foot replacement on the east side of the building. The final size of the facility will be approximately 213,000 gross square feet. The improvements will provide space for the programs described below, will address deferred maintenance and code requirements, and will install air conditioning to the building.

- Cook Counseling Center and Hokie Wellness will be located on the third floor creating an optimal environment for coordination of prevention, educational intervention, and treatment services. Relocating Cook Counseling from McComas Hall will consolidate offices currently located in McComas Hall and off campus leased space in one central location in War Memorial Hall, making it easier for students to access services before, after, or between classes. Cook Counseling will include approximately 40 interview offices, three group session rooms, and a waiting room for up to 50 patients. Hokie Wellness will include offices, training and educational space, individual and group consultation rooms, and a recovery community lounge.

- Recreational Sports will be located on the first and second floors and include five basketball courts, four racquetball courts, two squash courts, an expanded weight and cardio area, multipurpose rooms, a performance laboratory, and office space for recreation sports administration.

- The department of Human Nutrition, Foods, and Exercise (HNFE) will shift to the second floor from the third floor to make space for counseling services. The space will include research clinic laboratory with three procedure rooms, two consultation rooms, food preparation area, biochemistry laboratory, metabolic work area, and open metabolic areas.
The School of Education will remain in the historic front section of War Memorial Hall with renovated and updated offices, three large classrooms, two small classrooms, conference rooms, computer laboratory, and research space.

The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to 19,000 square feet in the area vacated by counseling services to accommodate student health services. A reconfiguration will alleviate the cramped conditions that currently exist in the Schiffert Health Center and address privacy and confidentiality protocols for students. The renovation creates additional general medicine exam rooms, additional practitioner offices, renovated x-ray room, procedure room, new airborne isolation procedure room, two phlebotomy stations, two allergy exam rooms, two women's health exam rooms, and three waiting areas.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. As with all self-supporting projects, the university has developed a financing plan to provide assurance regarding the financial feasibility of this project. The total project funding is $63 million and calls for the use of debt which may be serviced from Student Health and Recreational Sports auxiliaries and an internal lease for the School of Education program. Any cash designated for the project accumulated prior to the issuance of permanent debt may be used directly for project costs and to lower the estimated total debt issuance. Temporary financing will be secured to cover project costs until permanent debt is issued.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $63 million authorization to complete the Student Wellness Improvements projec
RESOLUTION OF A CAPITAL PROJECT FOR
STUDENT WELLNESS IMPROVEMENTS PROJECT

WHEREAS, the Board of Visitors approved a $2.757 million planning project at its March 2016 meeting to support planning work on a comprehensive student wellness services project; and,

WHEREAS, a major renovation of War Memorial Hall along with a minor renovation to McComas Hall has been identified as the desired solution to address the needs for student health services, counseling services, and indoor recreation; and,

WHEREAS, the project scope includes 213,000 gross square feet of improvements and expansion to War Memorial Hall and renovations of 19,000 gross square feet to Schiffert Health Center; and,

WHEREAS, the scope includes addressing deferred maintenance, code compliance, and installing air conditioning to War Memorial Hall; and,

WHEREAS, the total project budget is $63 million and the university has developed a 100 percent nongeneral fund resource plan for the project; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded major capital outlay projects.

NOW, THEREFORE BE IT RESOLVED, that the university be authorized to move forward with a $63 million authorization for the Student Wellness Improvements project and to secure temporary short-term financing through any borrowing mechanism that prior to such borrowing has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $63 million authorization, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to complete the Student Wellness Improvements project be approved.

November 6, 2017
Open Session Agenda

GOVERNANCE AND ADMINISTRATION COMMITTEE

Smithfield Room, The Inn at Virginia Tech
9:00 – 11:30 a.m.

November 6, 2017

**Agenda Item** | **Reporting Responsibility**
--- | ---
1. Opening Remarks | Mr. Mehul Sanghani, Chair
2. Consent Agenda | Mr. Mehul Sanghani, Chair
   a. Approval of Minutes of the September 11, 2017, Meeting | Mr. Mehul Sanghani, Chair
   b. Approval of Charter for the Office of Audit, Risk, and Compliance | Mr. Mehul Sanghani, Chair
   c. Approval of Charter for the Compliance, Audit, and Risk Committee | Mr. Mehul Sanghani, Chair
3. Update on the Search for the Senior Vice President for Operations and Administration | Mr. Charlie Phlegar
4. Athletics Presentation on ACC Network and Bowman Dining Project | Mr. Whit Babcock
5. Update on Branding Rollout and Synchronization with Athletics | Ms. Tracy Vosburgh
5. Update on Branding Rollout and Synchronization with Athletics | Mr. Whit Babcock
6. Presentation on IT and Enterprise Administrative Systems | Mr. Scott Midkiff
6. Presentation on IT and Enterprise Administrative Systems | Ms. Deborah Fulton
7. Presentation on HR in Higher Ed: A National Perspective and Planning for the Future | Dr. Lisa Wilkes
7. Presentation on HR in Higher Ed: A National Perspective and Planning for the Future | Mr. Scott Nostaja
8. Future Agenda Items and Closing Remarks | Mr. Mehul Sanghani, Chair

*Requires full Board approval*
1. **Welcome.** Mehul Sanghani, Chair of the Governance and Administration committee, will welcome committee members, guests, and invited participants.

2. **Consent Agenda.** The committee will consider for approval and acceptance the items listed on the Consent Agenda.
   a. Approval of Minutes of the September 11, 2017, Meeting
   b. Approval of Charter for the Office of Audit, Risk, and Compliance
   c. Approval of Charter for the Compliance, Audit, and Risk Committee

3. **Update on the Search for the Senior Vice President for Operations and Administration.** Charlie Phlegar, Vice President of Advancement and chair of the search committee for the new Senior Vice President for Operations and Administration, will provide the committee with an update on the status of the search that was recently begun.

4. **Athletics Presentation on ACC Network and Bowman Dining Project.** Whit Babcock, Director of Athletics, will present to the committee on the topics of preparations for participation in the ACC Network/Studio and the new Bowman Nutrition/Dining facility proposed as part of the renovation scope for the fourth floor of the Jamerson Center.

5. **Update on Branding Rollout and Synchronization with Athletics.** Tracy Vosburgh, Senior Associate Vice President for University Relations, will provide an update regarding the implementation of the new brand, and Whit Babcock, Director of Athletics, will discuss synchronization of the new academic logo with the existing athletic logo.

6. **Presentation on IT and Enterprise Administrative Systems.** Scott Midkiff, Vice President for Information Technology and Chief Information Officer, will briefly describe the mission, strategic goals, and structure of the IT organization at Virginia Tech. Deborah Fulton, Associate Vice President for Enterprise Systems, will follow with a presentation on the evolution of the applications portfolio and organization of Enterprise Systems over the past 10 years and challenges for the future.
7. **Presentation on HR in Higher Ed: A National Perspective and Planning for the Future.** Lisa Wilkes, Interim Vice President for Human Resources, will introduce Scott Nostaja, Senior Vice President and National Human Capital Practice Leader of Sibson Consulting, to provide the committee with a presentation on the changing landscape of human resources across higher education as it pertains to Virginia Tech’s efforts to move the university's HR culture to a strategic, forward-facing division that engages in comprehensive workforce planning.

8. **Closing Remarks.** Mehul Sanghani, Chair of the Governance and Administration committee, will offer closing remarks and request a motion for adjournment.
Beyond Boundaries Update

Menah Pratt-Clarke
Vice President for Strategic Affairs and
Vice Provost for Inclusion and Diversity

November 2017
Strategic Planning Structure

- Office for Strategic Planning
  - Director of Strategic Planning
  - Communications Manager
  - Administrative Support

- Strategic Planning Committee
  - Campus-wide representation
Strategic Planning Process

- Review of Beyond Boundaries Vision
- Review of Beyond Boundaries White Papers
- Review of BOV Scorecard
Review of Key Initiatives

- Destination Areas
- Experiential Learning
- Pathways Curriculum
- InclusiveVT
- Enrollment Growth
- Performance Incentive-Based Budget
- Master Plan
- North Capital Region
- Roanoke and Health, Science, and Technology Initiative
Core Components of Strategic Plan

- Vision
- Mission
- Key Objectives
- Goals and Metrics
- Implementation Strategy (Key Initiatives)
- Action Plans and Accountability
- Communication Plan
Challenges and Opportunities

- Alignment of Current Initiatives to Strategic Plan
- Integration of Diversity Strategic Plans
- Feasibility Assessment
- Physical Infrastructure
- Financial Capacity
- Technology Readiness
- Personnel and Talent
- Risk Factors
- Continuous Planning and Assessment
Strategic Planning Timeline

- **Fall 2017**: Creation of Office for Strategic Planning and Strategic Planning Committee
- **Fall 2017**: College/Unit Diversity Strategic Plans Completed
- **Spring 2018**: Campus Conversations and Engagement
- **Summer/Fall 2018**: Draft Strategic Plan Feedback
- **Spring 2019**: Rollout of New Plan
- **Summer 2019**: Unit and College Level Plan Development
Strategic Diversity
Enrollment: a new approach
Luisa M. Havens Gerardo, Ph.D.
Vice Provost for Enrollment Management
<table>
<thead>
<tr>
<th>Early ID of Talent</th>
<th>Identify high value prospects as early as 8th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated recruitment plan</td>
<td>Clear strategic segmentation of target populations and goals as early as 8th grade</td>
</tr>
<tr>
<td>Enhanced Approach to Admissions Review</td>
<td>Introduction of Non-Cognitive variables in the admissions review process</td>
</tr>
<tr>
<td>Financial Aid Leveraging Model</td>
<td>Optimize financial aid packages to promote enrollment and student success</td>
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<tr>
<td>Contribute to the 360 approach to student success</td>
<td>Evaluate pre-entry characteristics that contribute to student success metrics (retention, progression and on-time graduation) and optimize support and service delivery models to manage the entire student lifecycle.</td>
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</table>
Early Identification of Talent

• Partner with the micro-scholarship platform Raise.me to facilitate and reward activities and behaviors that promote college-going culture and create affinity with Virginia Tech early.

• Create and deploy an integrated communication plan that targets students, families and other influencers.

• Enhance our alumni recruitment network, to expand our presence at key undergraduate recruitment events and opportunities, create a prospect referral portal to promote alumni involvement in early identification of talent and coordinate more alumni send off events in key markets.
Integrated Recruitment Plan

• Institutionalize the science of recruitment:
  - Use of data to drive strategic direction
  - Use of data to guide planning
  - Use of data to guide individual actions and territory management plans

• Segment Analysis Service: allows us to use 150+ variables in 62 geodemographic clusters to identify and reach high value prospects in over 33,000 high-school and over 44,000 neighborhood in the U.S.

• By reaching students of diverse academic, socioeconomic, and student-interest attributes, we will be able to build a strategic recruitment plan.
Why an enhanced approach to admission review?

- Non-cognitive assessments allow institutions to provide a tool for evaluating students that may not have had the same opportunities as others.

- We do not need to completely eliminate grades and tests from our admissions systems; we need to add new measures that expand the range of dimensions we consider.

- A number of non-cognitive variables have been useful in predicting the success of first-generation students, underrepresented minorities, marginalized populations, international students, LGBTQ students, older-than-average students or veterans and women in higher education at a variety of institutions and programs.

- Cognitive variables assesses include self-concept, realistic self-appraisal, working the system (handling discrimination/racism), long-term goals, leadership, having a strong support person and community, and nontraditional learning.
Financial Aid Leveraging Strategy

Develop an econometrics model to inform a strategic financial aid leveraging plan. The plan will accomplish four main objectives:

• Determine the appropriate amount of aid to promote increased enrollment of strategic populations

• Directly contribute to the achievement of retention and graduation goals of different segments in the new and returning student population

• Optimize the distribution of aid to serve more students

• Balance attainment of enrollment goals with net tuition revenue goals and tuition discounting caps.
Financial Aid Leveraging Strategy

**BEFORE**
- Over-awarded student
- Non-enrolled student
- Ideal award

**AFTER**
- Ideal awards

Both students receive ideal awards
360 approach to student success
Strategic Diversity
Enrollment: a new approach

Luisa M. Havens Gerardo, Ph.D.
Vice Provost for Enrollment Management
# Open Session Agenda

**ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE**  
Inn at Virginia Tech and Skelton Conference Center  
Duck Pond Room  
8:45 – 11:30 a.m.  
Monday, November 6, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
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<tbody>
<tr>
<td><strong>1. Welcome and Acceptance of Agenda</strong></td>
<td>D. Petrine</td>
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<tr>
<td><strong>2. Report of Closed Session Action Items</strong></td>
<td>D. Petrine</td>
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<td><strong>3. Consent Agenda</strong></td>
<td>D. Petrine</td>
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<tr>
<td>* A. Approval of September 10, 2017 Minutes</td>
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<tr>
<td>* B. Resolutions and Reports</td>
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<tr>
<td>* i. Undergraduate Academic Affairs</td>
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<tr>
<td>* a. Resolution to Approve New Degree, Bachelor of Science in Public Health</td>
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<td>* ii. Pratt Fund Program and Expenditures Report</td>
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<td>* iii. Exclusion of Certain Officers/Directors</td>
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<td><strong>4. Committee Discussion</strong></td>
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<td>* A. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine</td>
<td>C. Clarke</td>
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<tr>
<td>B. College Update: College of Liberal Arts and Human Sciences</td>
<td>R. Blieszner</td>
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<tr>
<td>C. Student Affairs: Impact of Enrollments</td>
<td>P. Perillo</td>
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<tr>
<td>D. Research Report</td>
<td>T. Mayer</td>
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<tr>
<td>E. Partnership for an Incentive-Based Budget (PIBB)</td>
<td>J. Earley</td>
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<td>F. Council of College Deans Update</td>
<td>R. Sumichrast</td>
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<tr>
<td>G. Provost’s Update</td>
<td>C. Clarke</td>
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<tr>
<td><strong>5. Other Items/Adjourn</strong></td>
<td>D. Petrine</td>
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*Requires Full Board Approval*
Open Session Briefing Report  
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE  
November 6, 2017

**Agenda Item**  
**Reporting Responsibility**

1. **Welcome and Acceptance of Agenda**  
   Debbie Petrine, chair of the committee, will convene the meeting, introduce Cyril Clarke as interim executive vice president and provost, and review the agenda for acceptance by committee members.
   
2. **Report of Closed Session Action Items**  
   Debbie Petrine will report on actions taken during the Closed Session of the committee meeting including six appointments to emeritus status, four appointments to endowed chairs, professorships, or fellowships, one faculty research leave, national distinction salary adjustments, and the ratification of the faculty personnel changes report.

3. **Consent Agenda**  
   **A. Approval of September 10, 2017 Minutes**  
   **B. Resolutions and Reports**  
   i. Undergraduate Academic Affairs  
   * a. Resolution to Approve New Degree, Bachelor of Science in Public Health  
   * ii. Pratt Fund Program and Expenditures Report  
   * iii. Exclusion of Certain Officers/Directors  
   The committee will consider approval of the consent agenda including meeting minutes, a new bachelor of science degree in public health, and the budget proposals from the College of Agriculture and Life Sciences and the College of Engineering for the expenditure of Pratt Funds during 2016-2017, as required by the terms of the bequest. The Pratt Fund is also considered by the Finance and Resource Management committee, in addition to a resolution to consider approval of a resolution to exclude certain officers/directors in accordance with the National Industry Security Program Operating Manual.

4. **Committee Discussion**  
   **A. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine into Virginia Tech**  
   C. Clarke

*Requires Full Board Approval*
Cyril Clarke, interim executive vice president and provost, will provide an overview of the school and ask the committee to approve a resolution for Virginia Tech to acquire the VTCSOM as the ninth college of the university. This resolution is shared with the Finance and Resource Management committee.

B. College Update:
College of Liberal Arts and Human Sciences
Rosemary Blieszner, dean of the college of liberal arts and human sciences will highlight the college’s academic programs, scholarship, research, and significant contributions to the university’s Destination Areas.

C. Student Affairs: Impact of Enrollments
Patty Perillo, vice president for student affairs, will discuss the impact of enrollments on student support services including residence life, dining, wellness, and other aspects of student life.

D. Research Report
Theresa Mayer, vice president for research and innovation, will provide an update on the research enterprise of the university.

E. Partnership for an Incentive-Based Budget (PIBB)
Jeff Earley, associate vice provost for finance, will provide an overview of how the Partnership for an Incentive Based Budget (PIBB) supports and advances college and university excellence and aspirations.

F. Council of College Deans Update
Robert Sumichrast, dean of the Pamplin College of Business and committee representative from the university’s Council of College Deans will share an update from the deans’ perspective on university initiatives.

G. Provost’s Update
Cyril Clarke will provide a brief update.

5. Other Items/Adjourn
The Chair of the Academic, Research, and Student Affairs Committee will offer welcoming remarks and ask for approval of the agenda.
The committee will consider for approval and acceptance the items listed on the Consent Agenda.

A. Approval of September 10, 2017 Minutes
B. Academic Affairs Resolutions and Reports
   i. Undergraduate Academic Affairs
      *a. Resolution to Approve New Degree, Bachelor of Science in Public Health
      *ii. Pratt Fund Program and Expenditures Report
      *iii. Exclusion of Certain Officers/Directors

* Requires Full Board Approval
Committee Meeting Minutes

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE
Solitude Room
Inn at Virginia Tech
September 10, 2017

Committee Members Present
Tish Long, Brett Netto (graduate student representative), Chris Peterson, Debbie Petrine (chair), Hans Robinson (faculty representative), Wayne Robinson.

Board Members Present:
Greta Harris, C. T. Hill, Anna James, Mehmood Kazmi, Robert Mills, Seyi Olusina (undergraduate student representative), Mike Quillen, Mehul Sanghani, Robert Sebek (staff representative), Dennis Treacy, Horacio Valeiras, Jeff Veatch.

Guests

OPEN SESSION

1. Welcome. Debbie Petrine, chair of the committee, welcomed board members and guests.

2. Overview of New Board Committee Structure and Discussion of Committee Agenda Items. D. Petrine provided information on adjustments the board has made to its structure and practices. In addition to the reconstituted committees, the board has agreed to use consent agendas for matters that are routine. A committee member can request that an agenda item be removed from the consent agenda and placed before the committee for discussion. Petrine agrees with the addition of a representative from the university’s Council of College Deans to participate in the committee’s work. The chairs of each board committee will coordinate when agenda items are shared by committees. Committee members will discuss matters on the agenda before them, board members who
attend committees of which they are not a member, will hold their questions until recognized by the chair of the committee. It is important that everyone associated with the work of the committee be provided ample time during which to present and discuss agenda items. The order of standing agenda items rotate for each meeting.

3. Consent Agenda. The committee considered for approval the items on the Consent Agenda.

A. Approval of June 2017 Minutes
   i. Academic Affairs Committee June 5, 2017
   ii. Research Committee June 4, 2017
   iii. Student Affairs Committee June 5, 2017

B. Academic Affairs Resolutions and Reports
   i. Faculty Affairs
      a. Report of Reappointments to Endowed Chairs, Professorships, or Fellowships (1). Reappointment of Dr. Webster Santos to the Cliff and Agnes Lilly Faculty Fellowship in the College of Science for three years effective August 10, 2017 with operating support as provided by the endowment and, if available, with funds from the eminent scholars match program.
      *b. Resolution to Ratify the 2017-2018 Faculty Handbook
   ii. Undergraduate Academic Affairs
      a. Report on the Honors System

The committee unanimously approved the items on the Consent Agenda.

4. Committee Discussion.

A. Council of College Deans Update. Paul Winistorfer, dean of the College of Natural Resources and Environment and senior dean of the university’s Council of College Deans provided the committee with an update on behalf of the council. Robert Sumichrast, dean of the Pamplin College of Business, will serve as the representative to the committee from the Council of College Deans. Sumichrast was unable to attend this meeting of the committee and Winistorfer agreed to deliver the update on behalf of the council.

The Council of College Deans meets a couple times a month to discuss issues of common interest. Often, the council will invite the provost or other colleague to get an update on a particular program or initiative.

Current topics of interest to the deans include:

- The university’s efforts to implement the Partnership for an Incentive Based Budget (PIBB) budget model and its implications to the colleges.
• Destination Areas (DA) initiatives and the implications for curriculum and the hiring of faculty. Peer institutions are adopting similar processes for identifying strengths.
• Of concern overall is the desire to properly support quality and competitive faculty startups, and costs associated with a large number of DA hires.
• Deans continue to want to improve and create new facilities.
• Deans are excited to work on diversity and inclusion efforts.
• Scaling faculty and staff as the institution grows – increasing enrollment is creating challenges and opportunities.
• College deans are seeing the benefits of embracing the advancement model and realize the gains that can be realized through this model already evident in increased giving.

Discussion from the committee included questions about the impact of the new budget on the colleges. The budget model is being rolled out parallel to current practices and colleges are feeling supported. Menah Pratt-Clarke has created opportunities for very productive conversations with deans about how the colleges can be leading the university on diversity and inclusion initiatives. The deans are excited to partner with the president and provost on changes that benefit the university. As leaders of their respective colleges, the deans are focused on managing change within their colleges and supporting the faculty.

B. College Update. Winistorfer provided an overview and update on the College of Natural Resources and Environment. The college is celebrating its 25th year as a college at Virginia Tech. The college is ranked first in the country for studying natural resources and conservation and has several nationally ranked departments and programs including forestry and packaging systems. The college continues to align its academic programs in support of the university’s strategic goals. Enrollments in the college continue to rise as does external funding. The college is challenged by aging and crowded infrastructure, significant personnel changes including the retirements of long-serving professors, and aggressive hiring goals for the college and university. Federal funding portfolios will need to adjust to the changing landscape of national funding priorities.

Committee discussion included commenting on the college’s impressive status and future plans for corporate partnerships. The college is unique in having 65 corporate partners. The college’s advising model is to be commended as is the number of women serving as advisors. The college’s Sustainability Institute is competitive and unique. Students are redefining sustainability and bringing an ethic of sustainability to corporate environments. Twelve juniors and seniors from within the college participate in the institute each year.
C. Provost’s Update. Thanassis Rikakis, executive vice president and provost, introduced Luisa Havens as vice provost for enrollment management and Dave Guerin as associate vice provost for communication. Provost Rikakis updated the committee on three strategic university initiatives.

i. Health Sciences and Technology Campus and Virginia Tech Carilion School of Medicine. The Health Sciences and Technology campus in Roanoke continues to evolve and take shape. Among the elements contributing to developments in Roanoke is the Virginia Tech Carilion School of Medicine (VTCSOM). Since the announcement of a public-private partnership supported by the Commonwealth of Virginia, the school has contributed significantly to the region and nationally in graduating physicians with robust research experience. Virginia Tech and Carilion Clinic continue to aim towards the school’s integration in July of 2018 as the Virginia Tech’s ninth college. Dean Cynda Johnson was introduced to the committee as the founding dean and president of the school.

The integration of the VTCSOM into the university is designed to strengthen the Virginia Tech and Carilion Clinic partnership. The school will benefit from the university’s governance and other infrastructure. Because federal funding is unreliable, the future of the VTCSOM is additionally secure by having access to multiple sources of resources by being integrated as a college within a research university. Memoranda of understanding and other agreements will insure that the partnership remains strong and withstands any possible leadership changes within any of the partners. The integration of the VTCSOM is a significant step towards building the academic medical enterprise in Roanoke and the New River Valley.

The Department of Biomedical Research is academically located within the VTCOM and will collaborate with other departments and colleges within the university including the Biomedical Engineering and Mechanics departments housed in the College of Engineering.

The mayor of Roanoke is a partner in discussing plans for the growth in Roanoke of the Health Sciences and Technology campus which includes the Virginia Tech Carilion Research Institute (VTCRI) and the VTCSOM. Discussions are underway with counties and others in the New River Valley on how these efforts will contribute to the economic development of the area including creating ways to draw resources and talent to the area. Several municipal and regional groups are discussing these plans and committed to ensuring regional economic development.

ii. Destination Areas. Rikakis described progress made on the Destination Areas initiative. The Destination Areas are designed to synthesize current and future disciplinary and research strengths by creating transdisciplinary collaborations between departmental, college, and research institutes. There are five Destination Areas and four Strategic Growth Areas. The goal is to position
Virginia Tech to be responsive to complex and ever-changing 21st Century problems and to for the university to be a global leader within and across the nine areas. The university will be hiring faculty to achieve the goals of the Destination Areas and will be investing in strengthening learning and discovery spaces. Curricular advancements will occur at the undergraduate and graduate levels.

iii. Enrollment Planning and Projections. Rikakis provided information on the university’s enrollment planning and projections. The university aspires to grow undergraduate enrollments incrementally to enroll 30,000 undergraduate students by 2023. Growth is also projected in the National Capital Region and with the Health Sciences and Technology campus in Roanoke. All projections include aspirations to increase the diversity of the undergraduate and graduate student bodies. To support and in conjunction with enrollment growth, capital projects are forecasted through 2024.

Enrollment growth and improvements to facilities are integrated. The university forecasts adding over 1.2M square feet of space over the next six to seven years facilities will align with academic programs in Blacksburg, the National Capital Region, and Roanoke. A university undergraduate enrollment group is dedicated to examining the pressure points of what is required to achieve enrollment growth aspirations. We are in communications with town of Blacksburg regarding off-campus capacity for housing for students. Off-campus housing includes redeveloping older housing inventory rather than creating new housing. Future off-campus plans in Blacksburg include consideration of graduate student housing with opportunities for family housing. Plans also include 500 beds in the National Capital Region and 500 beds near the Roanoke campus.

D. Overview Research and Innovation Division. Theresa Mayer, vice president for research and innovation, provided the committee with an overview of the university’s research enterprise and opportunities to strengthen the research portfolio. Virginia Tech’s industry research is up, scholarly works are increasing in number, as are “home-grown” Fellows and National Academy members. The university can take pride in being a home for high-impact research that improves the human condition. Virginia Tech was selected to lead one of five national University Transportation Center programs. The 5 year, $28M SafeD University Transportation Center award will support the premier group of transportation safety researchers in the nation to conduct innovative research that will improve safety on U.S. roadways. The university is lagging in competitive federal research funding; scholarly citations and faculty awards trail the university’s peers; intellectual property protection and licensing revenue is down; comparatively, the university’s faculty start-ups are low; and the university lacks several accreditations important for research competitiveness. Areas of improvement focus include developing a university-wide focused research strategy and innovation strategy; clarifying roles and responsibilities for elements of the research enterprise, move from transactional to strategic. Next steps include aligning research and innovation functions to support excellence and growth, re-
invigorating the talent pool, contemporizing communications and marketing, enhancing tactical functions to be effective and efficient, developing a strategic approach to industry, federal, partnerships, redesigning the way work gets done, e.g., licensing and ventures. Overall, the plan is to focus on functions to amplify the positive effects of the university’s good foundation and the university’s geographic advantage.

The committee requested a time line of major initiatives related to advancing the research enterprise. Committee members are interested in providing appropriate support as needed. Members of the board can assist in growing the university’s engagement with industry by sharing their expertise. Additionally, the university will benefit from any additional funding the state might be able to provide to support the university’s significant contributions to economic development in the Commonwealth.

E. Student Affairs Division Update and Managing Enrollment Growth. Patty Perillo, vice president for student affairs, shared with the committee the manner in which the units within the Division of Student Affairs accommodated additional enrolled students for the fall of 2017. Efforts in housing and residence life included offering reduced returning student contracts, contract buy-outs for upper-class students, requiring a housing deposit earlier than last year, converting lounges, double rooms converted to accommodate three students, assigned roommates to Resident Advisors, and did not offer housing to transfer students. In dining services, students were offered expedited payment processing, extended dining hours, increase “grab-and-go” food offerings, advancing the Dietrick enclosure and plaza, adding mobile food ordering, renovating spaces, centralizing production, and utilizing food trucks. Health and wellness areas are working to increase options and student participation on turf fields, hiring additional counselors, increased office spaces for counselors in Kent Square and East Eggleston, and in targeted locations such as the graduate school, the veterinary college, and cultural centers. Campus life areas extended orientation sessions and programs including those to new students and families and to international students, added resources to community and cultural centers, and expanded meeting room options and classroom hours. Renovations and construction of new residence halls are part of future strategies.

Students and families receive training and information regarding resources for support and counseling. Regular communications with students and families highlight the Principles of Community, university and community citizenship, and how to receive assistance if it is needed. Student affairs is an active partner in the discussions regarding enrollment growth. It is important to calibrate enrollment growth with infrastructure capacity. Many families and students have complained about the current challenges with housing due to current over-enrollment. Personnel in the division are taking extra care in talking directly with students and families about their concerns and accommodating whenever possible. Important for all to understand and communicate that academic standards are not being
adjusted to draw additional students. A university committee is identifying spaces available for late night studying. The university continues to focus on any safety concerns expressed by students and their families. The committee is encouraged to interact with students when possible.

5. **Other Items.** Petrine asked members of the committee for agenda items for the November meeting of the committee and to send those to her promptly to accommodate deadline schedules.

**Academic, Research, and Student Affairs Closed Session**

**Committee Members Present**
Trish Long, Chris Peterson, Debbie Petrine (chair), Wayne Robinson.

**Board Members Present:**
Greta Harris, C. T. Hill, Anna James, Mehmood Kazmi, Robert Mills, Mike Quillen, Mehul Sanghani, Dennis Treacy (rector), Jeff Veatch, Horacio Valeiras.

1. **Motion to begin Closed Session.** The committee voted to go into closed session

*2. **Resolutions to Approve Appointments to Emeritus/a Status (17).** The voted unanimously to recommend the 17 appointments to emeritus/a status to the full board for approval.

*3. **Resolutions to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (1).** The committee voted unanimously to recommend one appointment to an endowed chair, professorship, or fellowship to the full board for approval.

*4. **Exception to the Conflict of Interests Act (1).** The committee voted unanimously to recommend one exception to the Virginia Conflict of Interests Act to the full board for approval.

*5. **Ratification of Faculty Personnel Changes Report.** The committee voted unanimously to ratify the Faculty Personnel Changes Report. The committee shares this responsibility with the Finance and Resource Management committee.

6. **Motion to end Closed Session.** The committee voted to return to Open Session.

**Return to Academic, Research, and Student Affairs Open Session**

In Open Session, Petrine reported on agenda items considered and voted on by the committee. Including appointments to emeritus/a status, appointments to endowed
chairs, professorships, or fellowships, one exception to the Virginia Conflict of Interests Act, and the Faculty Personnel Changes report.

There being no further business the Academic, Research, and Student Affairs committee adjourned at 5:30.
RESOLUTION TO APPROVE BACHELOR OF SCIENCE DEGREE IN PUBLIC HEALTH

Documents included:
1. Resolution to Establish Bachelor of Science Degree in Public Health
2. Supporting Documentation- Bachelor of Science Degree in Public Health
RESOLUTION TO APPROVE BACHELOR OF SCIENCE DEGREE IN PUBLIC HEALTH

WHEREAS, individual and community health problems can be ameliorated through implementation of public health core responsibilities and essential services; and

WHEREAS, the Institute of Medicine (now the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine) sees a public health trained workforce as an important component in helping the United States close gaps in health outcomes; and

WHEREAS, the Centers for Disease Control and Prevention reports that serious public health workforce shortages exist; and

WHEREAS, there is currently no accredited Bachelor of Science in Public Health degree offered at other higher education institutions in Virginia; and

WHEREAS, Virginia Tech is advancing health sciences curricula, research, and majors; and

WHEREAS, the undergraduate demand for a Bachelor of Science in Public Health degree is sizable; and

WHEREAS, a Master of Public Health degree, accredited by the Council on Education for Public Health (CEPH), is currently offered by the Department of Population Health Sciences in the Virginia-Maryland College of Veterinary Medicine; and

WHEREAS, the Bachelor of Science in Public Health, to be offered in the Department of Population Health Science in the Virginia-Maryland College of Veterinary Medicine, would be added to the CEPH accreditation of the Public Health Program;

THEREFORE BE IT RESOLVED that the Bachelor of Science in Public Health be approved effective fall 2018 and the proposal forwarded to the President, the Board of Visitors, and the State Council of Higher Education for Virginia (SCHEV) for approval, and to the Southern Association of Colleges and Schools (SACS) for notification.

RECOMMENDATION:

That the above resolution recommending the establishment of the Bachelor of Science in Public Health be approved, pending the approval by the State Council of Higher Education for Virginia and notification to the Southern Association of Colleges and Schools (SACS) for notification.

November 6, 2017
Virginia Tech Degree Proposal

Bachelor of Science in Public Health (BSPH)

CIP: 51.2201

Type of degree action: New

Program Background

Health is defined as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (http://www.who.int/aboutwho/en/definition.html). Public health is “the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society” (http://whqlibdoc.who.int/hq/1998/WHO_HPR_HEP_981.pdf). The United States spends more than any developed country on health care and yet U.S. health outcomes are inferior to countries which spend much less. In fact, the U.S. health care system is ranked 37th internationally (http://thepatientfactor.com/canadian-health-care-information/world-health-organizations-ranking-of-the-worlds-health-systems/). Within the U.S., public health outcomes vary widely (http://www.americashealthrankings.org/explore/2015-annual-report) with Virginia ranked as 21, while other nearby states rank even lower (N. Carolina, 31; Tennessee, 43; Kentucky, 44; W. Virginia, 47). In response to concerns about public health, the U.S. Office of the Assistant Secretary for Health, Health and Human Services (HHS) recently released ‘Public Health 3.0’, A Call to Action to Create a 21st Century Public Health Infrastructure (https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf). This report concludes that “the public health workforce must acquire and strengthen its knowledge base, skills, and tools in order to meet the evolving challenges to population health, to be skilled at building strategic partnerships to bring about collective impact, to harness the power of new types of data, and to think and act in systems perspective. This will require a strong pipeline into the public health workforce, as well as access to ongoing training and mid-career professional development resources”. The Centers for Disease Control and Prevention (CDC) also notes that “serious public health workforce shortages exist in disciplines that perform surveillance functions and these shortages limit the nation’s capacity and plans for enhancement” (Drehobl, 2012). The Institute of Medicine, a strong supporter of public health, sees a public health trained workforce as an important component in helping the United States close gaps in health outcomes. In their 2012 report, For the Public’s Health (https://www.nationalacademies.org/hmd/~~/media/Files/Report%20Files/2012/For-the-Publics-Health/phfunding_rb.pdf), the IOM highlights the types of skills that will be needed for this effort: “Public health departments can play several crucial roles in helping the nation reach these goals. In the past, public health has leveraged many partners to control — and even vanquish — infectious diseases through effective prevention strategies, sharply diminish environmental lead exposures, and nearly halve tobacco use. Today, public health departments can continue to bring together partners to assess community needs, and to plan and implement activities intended to meet key challenges in the areas of chronic disease, injury, emerging infectious diseases, mental health, and environmental health.”

Virginia Tech currently offers an accredited Master of Public Health (MPH) degree as well as a number of undergraduate courses with public health relevance. However, there is no undergraduate program at Virginia Tech that addresses all the Council on Education for Public Health (CEPH) Bachelor of Science in Public Health (BSPH) accreditation criteria. CEPH accreditation criteria is focused on
providing students with the skills and expertise necessary to join the public health workforce or to prepare for graduate programs in public health and allied fields.

The Department of Population Health Sciences in the Virginia Maryland College of Veterinary Medicine is requesting approval to offer a Bachelor of Science in Public Health (BSPH) degree beginning Fall, 2018. No other Commonwealth university offers the BSPH degree.

The overall undergraduate curriculum introduces students to foundations of scientific knowledge including the biological and life sciences and the concepts of health and disease; foundations of social and behavioral sciences; public health data analytics; biostatistics; epidemiology; environmental health; health behavior; and health policy and administration. More specifically, the following content will be covered:

- The history and philosophy of public health as well as the core values, concepts, and functions across the globe and in society;
- The basic concepts, methods, and tools of public health data collection, use and analysis and why evidence-based approaches are an essential part of public health practice;
- The concepts of population health, and the basic processes, approaches and interventions that identify and address the major health-related needs and concerns of populations;
- The underlying science of human health and disease, including opportunities for promoting and protecting health across the life course;
- The socioeconomic, behavioral, biological, environmental and other factors that impact human health and contribute to health disparities;
- The fundamental concepts and features of project implementation, including planning, assessment and evaluation;
- The fundamental characteristics and organizational structures of the US health system as well as the differences between systems in other countries;
- Basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy and the roles, influences, and responsibilities of the different agencies and branches of government;
- Basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology.
- Ability to communicate public health information, in both oral and written forms, through a variety of media and to diverse populations;
- The ability to locate, use, evaluate and synthesize public health information.

Mission

The mission of the BSPH program is to prepare graduates for placement directly into the public health workforce or into graduate programs in public health and allied fields. The BSPH program will be grounded in a One Health model which involves the human-animal-environmental health interface and provides experiential learning and professional preparation in the core and concentration competencies, functions and responsibilities of public health.

Faculty and students will serve community needs through development of mutually beneficial partnerships with communities, local health departments, medical and veterinary organizations, community-based organizations, other public health and private institutions to improve local, state, regional, national and global public health, contribute to workforce development and advance One Health.
Online Delivery
Currently two of the core courses are available online and while some general education and elective courses may be online the intent is to offer this program face-to-face.

Accreditation
The Department of Population Health Sciences in the Virginia Maryland College of Veterinary Medicine has a CEPH accredited Public Health Program which currently operates the Master of Public Health (MPH) degree. The BSPH program will stand for accreditation under the current Public Health Program accreditation.

Advisory Board
The current Public Health External Advisory Board includes representatives from public health-affiliated agencies, institutions, associations and corporations. This Board will oversee both the BSPH and MPH programs.

Charge -- The External Advisory Board offers an external perspective on all aspects of the program. Specifically, the Advisory Board:

- Represents important health stakeholders in the region and beyond;
- Advises program leaders on issues related to program accreditation;
- Lends advice on sound financial practices the program should follow to be self-supporting;
- Helps identify relevant funding opportunities; and
- Assists in networking and student field placement; and
- Assists in promoting the program.

Advisory Board Members
- John Dreyzehner, MD, MPH; Chair Commissioner of Health, Tennessee Former Director, Cumberland Plateau Health District Virginia Department of Health
- Nathaniel L. (N.L.) Bishop, M.S.Ed, D.Min. President, Jefferson College of Health Sciences Chair of Department of Interprofessionalism VTCSOM
- Ben Davenport, Jr.; Chairman, Davenport Energy & First Piedmont Corporation
- Katherine Feldman, DVM, MPH, DACVPM State Public Health Veterinarian Maryland Department of Health and Mental Hygiene
- Bill Gruchow, PhD; Professor, Department of Public Health Education University of North Carolina at Greensboro
- Andy Morikawa Executive Director Emeritus (retired 2011) Community Foundation of The New River Valley
- Molly O’Dell, MD, MFA, Director, New River Health District Virginia Department of Health
Admission Criteria
Undergraduates will have the opportunity to be admitted directly into the BSPH program as a part of their Virginia Tech application. Virginia Tech requires all entering freshmen to have completed:

- 18 units of high-school course work;
- 4 units of English;
- 3 units of math that includes a minimum of algebra I and II and geometry;
- 2 units of laboratory science;
- 2 units of social science one of which must be history;
- 3 additional academic units (foreign language is recommended);
- 4 elective units.

In addition, undergraduates may internally transfer into the BSPH program. There are no special admission requirements.

Goals of the Bachelor of Science in Public Health
Prepare students who:

1. Demonstrate proficiency in implementing the public health core responsibilities and essential services;

2. Apply public health analytics to identifying and addressing public health problems;

3. Demonstrate public health workforce readiness.

Target Population
Seniors in Virginia high schools and in the Central Appalachian Region who are interested in attending Virginia Tech and majoring in public health is the target population for the BSPH.

BSPH Curriculum
The BSPH is a 120-hour degree program that includes 42 Pathways credits, 39 Public Health Core Requirements, and 39 Credits that are open for options such as an additional approved major or minors. This structure provides the student with the flexibility to complete coursework that is centrally related to their academic/career interests. Examples of what this structure would look like in practice could be a double majoring in Public Health and Computational Modeling and Data Analytics (or vice versa); Public Health and Biological Sciences (or vice versa); Public Health and Human Development (or vice versa); Public Health and Human, Nutrition, Foods and Exercise (or vice versa); and Public Health and Engineering (or vice versa). Instead of a double major students could complete approved university minors or pathways minors as a part of the 39 credits. The structure of this degree program is congruent to both the direction of Virginia Tech in terms of a university without borders and the emphasis SCHEV has placed on degree programs that are less prescriptive and maximize student choice.

The requirements of the BSPH and a semester by semester checklist follows. Letters of support for Pathways courses, BSPH Core Courses, and the BSPH Degree can be found in Appendices A, B, and C respectively.
### Bachelor of Science in Public Health (BSPH) Curriculum

*(Note: Course Support Letters can be found at the end of the proposal)*

<table>
<thead>
<tr>
<th>Pathways General Education Courses (Total: 42 Credits)</th>
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<tbody>
<tr>
<td><strong>Discourse (9 credits)</strong></td>
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<tr>
<td>ENGL 1105 First-Year Writing (3 credits)</td>
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<tr>
<td>ENGL 1106 First-Year Writing (3 credits)</td>
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<tr>
<td>Chose Advanced Course (2000+) (3 credits)</td>
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<tr>
<td><strong>Critical Thinking in the Humanities (6 credits)</strong></td>
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<tr>
<td>Choose Humanities Course (3 credits)</td>
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<tr>
<td>Choose Humanities Course (3 credits)</td>
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<tr>
<td><strong>Reasoning in the Social Sciences (6 credits)</strong></td>
</tr>
<tr>
<td>PSYC 1004 Introductory Psychology (3 credits)</td>
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<tr>
<td>SOC 1004 Introductory Sociology (3 credits)</td>
</tr>
<tr>
<td><strong>Reasoning in the Natural Sciences (6 credits)</strong></td>
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<tr>
<td>BIOL 1105 Principles of Biology (3 credits)</td>
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<tr>
<td>BIOL 1106 Principles of Biology (3 credits)</td>
</tr>
<tr>
<td><strong>Quantitative and Computational Thinking (9 credits)</strong></td>
</tr>
<tr>
<td>MATH 1014 Precalculus with Transcendental Functions (3 credits)</td>
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<tr>
<td>STAT 3615 Biological Statistics (3 credits)</td>
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<tr>
<td>Chose Advanced Course (2000+) (3 credits)</td>
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<tr>
<td><strong>Critique and Practice in Design and the Arts (6 credits)</strong></td>
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<tr>
<td>Choose Art Course or Integrated Art/Design Course (3 credits)</td>
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<tr>
<td>Choose Design Course or Integrated Art/Design Course (3 credits)</td>
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<table>
<thead>
<tr>
<th>Public Health Core Requirements (Total 39 Credits)</th>
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<tbody>
<tr>
<td>HNFE 1004: Human Nutrition, Foods, and Exercise (3 credits)</td>
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<tr>
<td>PHS 1514 Personal Health (3 credits)</td>
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<tr>
<td>PHS 2004 Introduction to Public Health (3 credits)</td>
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<tr>
<td>HNFE 2664 Behavioral Nutrition and Physical Activity (3 credits)</td>
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<tr>
<td>PHS 3014 Introduction to Environmental Health (3 credits)</td>
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<tr>
<td>PHS 3534 Drug Education (3 credits)</td>
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<tr>
<td>HNFE 3634 Epidemiological Concepts of Health and Disease (3 credits)</td>
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<tr>
<td>PHS 4044 Public Health Policy and Administration (3 credits, Junior Standing)</td>
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<tr>
<td>PHS 4054 Concepts in One Health (3 credits, Junior Standing)</td>
</tr>
<tr>
<td>PHS 4064 Modeling Infectious Diseases (3 credits, Junior Standing)</td>
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<tr>
<td>PHS 4074 Practicum in Public Health (3 credits, Senior Standing)</td>
</tr>
<tr>
<td>COMM 4324 Issues in Health Communication (3 credits, Junior Standing)</td>
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<tr>
<td>SOC 4704 Medical Sociology (3 credits, Junior Standing)</td>
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<table>
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<tr>
<th>Additional Major/Minor/Free Electives 39 credits</th>
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**Total: 120 Credits**
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<td>PSYC 1004 Introductory Psychology (Reasoning Social Sciences)</td>
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<td>MATH 1014 Precalculus with Transcendental Functions (Quantitative and Computational Thinking)</td>
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<td>Critical and Practice in Design and the Arts Course (Choose Art or Design Course or Art/Design Course)</td>
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<td>Advanced Discourse Class Choose Advanced Course (2000+)</td>
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<td>HNFE 1004 Human Nutrition, Foods and Exercise¹</td>
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<td>PHS 3534 Drug Education¹</td>
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<td>STAT 3615 Biological Statistics (Quantitative and Computational Thinking)</td>
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<tr>
<td>Free Elective Course</td>
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<td>PHS 3014 Introduction to Environmental Health¹</td>
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<tr>
<td>Free Elective Course</td>
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<td>PHS 4044 Public Health Policy and Administration¹ (Junior Standing)</td>
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<tr>
<td>Free Elective Course</td>
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<td>Free Elective Course</td>
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<tr>
<td>HNFE 3634 Epidemiological Concepts of Health and Disease¹</td>
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Virginia-Maryland Regional College of Veterinary Medicine
Department of Population Health Sciences
Bachelor of Science in Public Health
Major in Public Health
For Students Graduating in Calendar Year 2022

<table>
<thead>
<tr>
<th>Fall Semester Senior 2021</th>
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<td>PHS 4054 Concepts in One Health*1 (Junior Standing)</td>
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<td>PHS 4064 Modeling Infectious Diseases*1 (Junior Standing)</td>
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<td>COMM 4324 Issues in Health Communication*1 (Junior Standing)</td>
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<td>PHS 4074 Practicum*1 (Senior Standing)</td>
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<td><strong>15</strong></td>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*1 Course satisfies a Public Health Core requirement (Total 39 Credits)

Note: Students who did not successfully complete at least two years of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward the hours required for graduation. Please consult the Undergraduate Catalog for details.

Note: Some courses listed on this checksheet have prerequisites. Please consult the University or check with your advisor.

Satisfactory Progress Toward Degree

(1) After having attempted 36 semester credits (including transfer, advanced placement, and advanced standing) students must have passed at least 12 semester credits of Pathways to General Education.

(2) After having attempted 72 semester credits (including transfer, advanced placement, and advanced standing) students must have passed at least 24 semester credits of the Pathways to General Education.

After having attempted 96 semester credits (including transfer, advanced placement and advanced standing) students must have an in-major grade point average of 2.0 or higher and should have completed PHS 1514, 3004, 3014,3534, 4044, 4054, 4064; HNFE 1004, 2664; SOC 4704; COMM 4324; STAT 3615

Courses used to calculate in-major GPA

Students must maintain a minimum of 2.0 GPA and earn a grade of C- or better in each of the following courses:

PHS 1514, 3004, 3014,3534, 4044, 4054, 4064; HNFE 1004, 2664; SOC 4704; COMM 4324
STAT 3615
Student Retention and Continuation Plan

Each student in the program will have an advisor who will make every effort to make sure students are retained and that the student will graduate in a reasonable time period. In addition, the Program and Policy Committee in the Population Health Sciences will examine progress toward degree for each student and assist those who are not adequately progressing. For those students who transfer to a different major an exit interview will be held to ascertain why a student is transferring from the program. In general, as with the MPH degree, faculty will be highly involved to maximize the opportunity for student success.

Faculty

All faculty in the MPH program in the Department of Population Health Sciences will teach and advise in the proposed BSPH program. The faculty are all content experts and accomplished research and/or public health practitioners. The list of core faculty can be found in Appendix A.

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNFE 1004</td>
<td>Human Nutrition, Foods, and Exercise</td>
</tr>
<tr>
<td>PHS 1514</td>
<td>Personal Health</td>
</tr>
<tr>
<td>PHS 2004</td>
<td>Introduction to Public Health</td>
</tr>
<tr>
<td>HNFE 2664</td>
<td>Behavioral Nutrition and Physical Activity</td>
</tr>
<tr>
<td>PHS 3014</td>
<td>Introduction to Environmental Health</td>
</tr>
<tr>
<td>PHS 3534</td>
<td>Drug Education</td>
</tr>
<tr>
<td>HNFE 3634</td>
<td>Epidemiologic Concepts of Health and Disease</td>
</tr>
<tr>
<td>PHS 4044</td>
<td>Public Health Policy and Administration</td>
</tr>
<tr>
<td>PHS 4054</td>
<td>Concepts in One Health</td>
</tr>
<tr>
<td>PHS 4044</td>
<td>Public Health Policy and Administration</td>
</tr>
<tr>
<td>PHS 4064</td>
<td>Modeling Infectious Diseases</td>
</tr>
<tr>
<td>PHS 4074</td>
<td>Practicum</td>
</tr>
<tr>
<td>COMM 4324</td>
<td>Issues in Health Communication</td>
</tr>
<tr>
<td>SOC 4704</td>
<td>Medical Sociology</td>
</tr>
</tbody>
</table>

Public Health Core Course Descriptions

HNFE 1004: HUMAN NUTRITION, FOODS AND EXERCISE

Scientific information applied to current concerns in foods, nutrition and exercise as it affects the nutritional health well-being of humans. (3H, 3C)

PHS 1514: PERSONAL HEALTH

Fundamental health content and theory to provide students with constructive health information necessary to meet current and future personal health needs. Special emphasis on wellness and health promotion. (3H,3C)

PHS 2004: INTRODUCTION TO PUBLIC HEALTH

An examination of the how the public health core disciplines of biostatistics, epidemiology, health policy and administration, health behavior, and environmental health work together in addressing public health problems. Special emphasis on the public health infrastructure and role of health informatics in public health. (3H, 3C)
HNFE 2664: BEHAVIORAL NUTRITION AND PHYSICAL ACTIVITY
Introduction to behavioral theories used to design, implement and evaluate health promotion programs, and theories underlying health behavior change. Interactions between individuals, physical and social environments, interpersonal, and intrapersonal determinants of health behavior. Epidemiological evidence of benefits of health eating and physical activity. (3H, 3C)

PHS 3014: INTRODUCTION TO ENVIRONMENTAL HEALTH
This course will provide an overview of environmental health, examining local, national, and international frameworks. The course will cover environmental factors that affect human health, including major classes of chemical, biological, and physical exposures from different environmental media (air, water, food, and soil). The class will emphasize toxicology and epidemiology methodologies used at the individual (mechanistic) level and at the population level to determine environmental causes of disease and find the most appropriate prevention or control measure to minimize adverse health outcomes. (3H, 3C).

PHS 3534: DRUG EDUCATION
Interpretation of multidimensional (social, psychological and physiological) scientific data regarding drugs. The major drug categories will be covered with special emphasis on substance misuse and abuse. (3H,3C)

HNFE 3634: EPIDEMIOLOGIC CONCEPTS OF HEALTH AND DISEASE
Designed to give students in the health sciences a basic understanding of the modern concepts regarding health and disease as well as skills in organizing epidemiological data, disease investigation and surveillance. Includes a survey of terms, concepts, and principles pertinent to epidemiology. Lifestyles of populations and the relationships between lifestyles and health status are studied. II. (3H,3C)

PHS 4044: PUBLIC HEALTH POLICY AND ADMINISTRATION
This course will focus on the evolution of public health policy in United States. Public health and health care systems will be examined. Administrative concepts central to public health such as strategic planning, controlling, directing, leadership and health law will be covered in the course. (3H, 3C).

PHS 4054: CONCEPTS IN ONE HEALTH
One Health refers to the dynamic interdependence of human, animal and environmental health and provides an important perspective in examining health problems. This course focuses on the theoretical foundations of One Health, methods for assessing animal-human linkages, policies and practices related to One Health, and capacity building and public engagement. (3H, 3C).

PHS 4064: MODELING INFECTIOUS DISEASES
Mathematical modeling of infectious diseases in humans and animals. Deterministic susceptibles-infectious-recovered (SIR) and related models, estimation of reproductive number, host heterogeneities, multi-pathogen/multi-host models, spatio-temporal models, stochastic dynamics, and modeling for public health policy. (3H, 3C)

PHS 4074: PRACTICUM IN PUBLIC HEALTH
Public health theories and concepts in a work setting; comprehensive, structured experience requires student to demonstrate professional competencies while working closely with a supervisor in a public health practice setting. Pre-requisite: Senior standing and completion of 21 hours of public health core courses. (3C).
COMM 4324: ISSUES IN HEALTH COMMUNICATION
Study of issues related to the theory and practice of health communication, including interpersonal, public, organizational, political, and cultural. Senior standing required. (3H,3C).

SOC 4704: MEDICAL SOCIOLOGY

Program Administration
An undergraduate BSPH program director will be identified internally or if need be recruited. The BSPH program director will oversee all aspects of the BSPH program, from admissions to assignment of advisor to tracking student success. The program director will be the face of the program and as such will oversee all the moving parts.

Student Assessment
Having completed the program, students are expected to demonstrate the ability to:

• Describe the role of public health professionals in protecting, improving and promoting health in communities;

• Demonstrate understanding of the use of biostatistics and epidemiology in infectious and chronic disease etiology, occurrence and prevention;

• Design a public health program that utilizes core public health concepts (biostatistics, environmental health, epidemiology, health services administration, and social and behavioral sciences) in solving community problems;

• Define the role of public health in meeting community health needs;

• Prepare a public health program that reduces incidence and prevalence of diseases and / or high risk health behaviors in selected communities;

• Describe the core principles and theories used in primary, secondary and tertiary prevention;

• Define the role of the health promotion specialist as a member of the public health team;

• Prepare a comprehensive prevention program designed to address a real a public health problem;

• Describe the infectious disease process;

• Demonstrate the skill to apply public health concepts to infectious disease;

• Design a clinical and public health approach to prevention and control of infectious disease;

• Define the role of infectious disease public health specialists in recognizing, evaluating and mitigating infectious disease impacts in populations;

• Prepare a comprehensive plan to prevent and control communicable disease outbreaks.
Student Assessment

Student learning will be assessed by:

- Evaluation of student performance in courses by the advisor and program director;
- Evaluation of student progress towards completion of degree by the advisor and program director;
- Review of student competencies and skills in practicum development and practicum performance by the advisor and program director;
- Assessment of student competencies and skills in culminating experience, with evaluation of student abilities to design, execute, analyze and evaluate a public health problem and student abilities to propose (a) solution(s) to protect, maintain and / or enhance public health.

Program Assessment Strategy

The Assessment Committee for the MPH/BSPH program will monitor consistency of recruitment, program delivery, course offerings, graduation, and fulfilling the needs of Southwest Virginia and the Commonwealth.

The Assessment Committee will continuously collect data to facilitate program assessment on whether goals are being met. This is necessary to allow the steering committee to make modifications that will improve outcomes. In addition to collecting numerical data to track Benchmarks of Success (below), several groups of stakeholders will be asked for feedback.

1. Current Students. In addition to normal course evaluations, feedback from current students will be collected once a year about their experience with the program including course quality and relevance, and program administration through an anonymous survey and town hall meetings.

2. Alumni. Six months or more after graduation, alumni will be surveyed to determine their employment outcomes and to collect data on how appropriate their training was for the job they now hold.

3. Faculty. Faculty teaching in the program will be contacted yearly to provide program feedback and suggestions for improvement.

4. Community Contacts. Employers of program alumni will be contacted at least six months after hiring new graduates for data on whether the skills of our graduates are appropriate to their needs.

Benchmarks of Success

Criteria for success of the BSPH program includes:

- Enrollment of 400 majors by the 4th year after the first class is admitted;
- 75% or more of majors graduate in 4 years or less;
- Program retention rate is at least 80%;
- 75% of graduates obtain employment in public health or pursue graduate studies within two years of graduation;
- 75% of alumni are satisfied or very satisfied with the academic experience;
75% of employers are satisfied with graduate's job performance after 3 years of employment.

Expansion of an Existing Program
This program is not an expansion of an existing program

Relationship to Existing Degree Programs
The proposed BSPH program has no relationship with other undergraduate degrees at Virginia Tech.

Collaboration or Stand Alone
A stand-alone degree program is being proposed. As with all degrees, curricular requirements include courses from other departments. The BSPH will be managed by the Department of Population Health Sciences.

Response to Current Needs
Reports from a range of governmental and other agencies have described the serious shortage of public health workers and the need for additional training, particularly in areas that align with the model for the VT-shaped student (“...building strategic partnerships to bring about collective impact, to harness the power of new types of data, and to think and act in systems perspective”, https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf). According to the U.S. Department of Labor, the health sciences field represents the largest single industry in the U.S., accounting for 14.3 million jobs across 200 different fields. In addition, seven of the 20 fastest growing occupations are health-related, generating 3.25 million new jobs between 2008 and 2018, a 22 percent increase, or double the growth of all other industries combined. In the future, it is anticipated there will be a growing need for health promotion professionals as a result of rising incidence of chronic disease, rising health care costs driving intervention strategies, increased need for research in the area of disease prevention, the aging work force, technological advances, and increased demand for consultants.

Employment Demand
The Association of Schools and Programs of Public Health (ASPPH) currently estimates 250,000 more public health workers will be needed in the U.S. by 2020. The public health workforce in the U.S. is diminishing, with 23% of the current workforce (almost 110,000 workers) eligible for retirement by 2012. Nationally, existing schools of public health would have to train nearly three times the number of current graduates to meet this projected demand.

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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>Health educators &amp; community health workers</td>
<td>--</td>
<td>115,700</td>
<td>131,300</td>
<td>13</td>
</tr>
</tbody>
</table>
Bachelor of Science in Public Health (BSPH) Proposal

<table>
<thead>
<tr>
<th>Health educators</th>
<th>21-1091</th>
<th>61,400</th>
<th>68,900</th>
<th>12</th>
<th>7,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community health workers</td>
<td>21-1094</td>
<td>54,300</td>
<td>62,400</td>
<td>15</td>
<td>8,100</td>
</tr>
</tbody>
</table>


May 2015, median annual wage for health educators in top industries:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Median Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals; state, local, and private</td>
<td>$61,610</td>
</tr>
<tr>
<td>Government</td>
<td>54,050</td>
</tr>
<tr>
<td>Ambulatory health care service</td>
<td>50,300</td>
</tr>
<tr>
<td>Religious, grantmaking, civic, professional, and similar organizations</td>
<td>47,360</td>
</tr>
<tr>
<td>Social assistance</td>
<td>39,390</td>
</tr>
</tbody>
</table>


May 2015, median annual wage for community health in top industries:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Median Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals; state, local, and private</td>
<td>$43,530</td>
</tr>
<tr>
<td>State and local government, excluding education and hospitals</td>
<td>39,240</td>
</tr>
<tr>
<td>Religious, grantmaking, civic, professional, and similar organizations</td>
<td>38,190</td>
</tr>
<tr>
<td>Ambulatory health care service</td>
<td>34,740</td>
</tr>
<tr>
<td>Individual and family services</td>
<td>33,740</td>
</tr>
</tbody>
</table>


Health Educators and community Health Workers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health educators</td>
<td>$51,960</td>
</tr>
<tr>
<td>Health educators and community health workers</td>
<td>$43,840</td>
</tr>
<tr>
<td>Counselors, social workers, and other community service specialists</td>
<td>$42,030</td>
</tr>
<tr>
<td>Community Health workers</td>
<td>$36,300</td>
</tr>
<tr>
<td>Total, all occupations</td>
<td>$36,200</td>
</tr>
</tbody>
</table>


Student Demand

The Department of Population Health Sciences routinely receives requests from undergraduate students to be allowed to enroll in one or more of the MPH courses. If space was available in the class and the student was a senior with a 3.0 GPA or above they were generally allowed to take the course. During Spring, 2014, a special section of PHS 5004 Fundamentals of Public Health was offered as an undergraduate special study and 73 undergraduate students enrolled in the class. There was no solicitation for this course – 73 students found it listed in the timetable and enrolled.

In late Spring, 2016 a survey was sent to university studies students that summarized what a BSPH program would look like and if the student would be interested. One hundred and forty-four students
responded that they would be interested in pursuing a BSPH if it were offered. No email blasts were used to increase response rate.

It is clear that the interest in the BSPH is keen and enrollment projections are realistic. Further, the degree with complement the other health-related undergraduate majors currently offered.
Projected Enrollment

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4 Target Year (2-year institutions)</th>
<th>Year 5 Target Year (4-year institutions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDCT 100</td>
<td>FTES</td>
<td>HDCT 200</td>
<td>FTES</td>
<td>HDCT N/A</td>
</tr>
</tbody>
</table>

Note: VCCS institutions should only complete Years 1 through 4. Graduation rates must be included in Year 4, Target year.

Definitions:
HDCT—Fall headcount enrollment
FTES—annual full-time equated student enrollment
GRADS—annual number of graduates of the proposed program

Assumptions
Faculty in the Department of Population Health Sciences are frequently asked by undergraduate students to enroll in MPH graduate courses. This is a good indication that public health courses albeit graduate are highly sought after by Virginia Tech students. Further, with the expansion of health science related initiatives at the university an undergraduate BSPH degree would interface very smoothly with the other health science initiatives.

Duplication
The proposed BSPH program does not duplicate any already existing program at Virginia Tech. There is no major that is framed around the public health core responsibilities and essential services and CEPH accreditation criteria.

Library
The library holdings currently serve the MPH program. These resources will be used by BSPH students as well.

Projected Resource Needs for the BSPH
Resource needs relating to instructional and advising personnel, space and funding will be met in part through expanded use of existing resources available in the College of Veterinary Medicine and the University. As described above, faculty currently assigned teaching and advising functions in the MPH program will provide instructional support for the public health core requirements of the BSPH program. In regard to instructional space, the CVM expects to complete a facilities remodeling project by the end of the spring semester in 2017 that involves construction of a scale-up teaching space accommodating 65 students. This facility, together with availability of the DVM classrooms in the late afternoon and evenings and anticipated creation of instructional spaces at the Health Sciences and Technology – 1 initiative in Roanoke, are expected to meet the space needs to deliver the public health core. The pathways general education enrollments will need to be accommodated in other colleges and through the use of general classroom spaces on campus.

It is clear, however, that while existing resources will contribute significantly to meeting the needs of the program, they will not be sufficient to support anticipated enrollment of approximately 400 students. Recognizing that accurate assessment of resource requirements will evolve in conjunction
with program development, the College at this time estimates that the following additional resources will need to be committed to the program to assure its success:

**New faculty positions:**
- 1 tenure-track epidemiology position in the Data Analytics and Decision Sciences (DADS) destination area has already been committed by the Provost
- Another tenure-track position in DADS committed by the Provost in the next round of position allocations will be committed to public health.
- Full implementation of the program is expected to need two faculty positions in addition to the two destination area positions indicated above. While these will have significant teaching assignments, assignment of at least 30% of each appointment to research and scholarship will meet the College standard for these being tenure-track appointments. It is anticipated that BSPH tuition revenue will support these appointments.

**Graduate Teaching Assistantships:**
- GTAs currently funded in the College will be assigned instructional duties in the BSPH program.

**University staff:**
- One staff position will be needed to provide administrative support and advising coordination. It is anticipated that BSPH tuition revenue will support this appointment.
REFERENCES


Institute of Medicine. For the Public's Health. April, 2012.


Appendix A
BSPH Core Faculty

Kaja M. Abbas, PhD, Computer Science, 2006, University of North Texas, Assistant Professor of Infectious Diseases in Public Health

Andrea Bertke, PhD, 2007, Uniformed Services University of the Health Sciences, Assistant Professor of Infectious Diseases in Public Health

Julia M. Gohlke, PhD, Environmental Health, 1993, University of Washington, Seattle, WA, Assistant Professor of Public Health

Kathryn W. Hosig, PhD, Nutrition, 1992, Purdue University, Associate Professor of Public Health

Laura Hungerford, DVM, MPH, PhD, 1989, University of Illinois, Professor of Epidemiology.

Susan West Marmagas, MPH, 1995, University of California at Berkeley, Associate Professor of Practice

Frank William Pierson, DVM, 1984, Professor, Biosecurity and Infection Control / Clinical Specialist, Poultry Medicine.

Kerry J. Redican, PhD, 1976, University of Illinois at Champaign-Urbana, Professor of Public Health.

Sophie Wenzel, 1998, MPH, Emory University, Lecturer in Public Health
Appendix B

Course Support Letters

Kerry,

Biological Sciences supports inclusion of BIOL 1105, 1106 Principles of Biology in the proposed Bachelor of Science in Public Health (BSPH) curriculum. Please be aware that our ability to offer seats in these classes is dependent on continued enrollment support funding or any future funding mechanism that replaces enrollment support.

Rich

Richard A. Walker
Associate Department Head and Associate Professor
Biological Sciences
2089 Derring Hall, 1405 Perry Street
Virginia Tech, Blacksburg, VA 24061-0406
540-231-3803 (phone) 540-231-9307 (fax) rawalker@vt.edu

Hi Kerry:

We are delighted that you will be requiring ENGL 1105 and 1106 on your checksheet.

Please know that we offer three courses that might be of interest to your students as electives: ENGL3154 Literature, Medicine, and Culture and ENGL4314 Narrative Medicine, and ENGL4824 Science Writing. Each will probably also go through as Pathways courses, in both discourse and humanities.

Cheers,

BH

Bernice L. Hausman
Chair, Department of English, Virginia Tech
Edward S. Diggs Professor in the Humanities
Professor, Virginia Tech Carilion School of Medicine
540-231-8466
bhausman@vt.edu
Dear Kerry,

Thank you for writing to alert me to the anticipated proposal of a new Bachelor of Science in Public Health. The degree requirements include Math 1014, and you expect 100 students per year in your new program. As long as the new budget model provides resources associated with the additional student credit hours, the Math Department will be able to support this new requirement.

As far as your assumption that Math 1014 will satisfy Pathways quant/comp requirements, all I can say at this point is that I don’t know. In spite of my efforts and the efforts of many colleagues in the Math Department and the College of Science, I have very little understanding of what changes are required to make a CLE Area 5 course a Pathways quant/comp course. Thank you for mentioning that you hope to use Math 1014 to satisfy Pathways requirements. Can you tell me what topics in Math 1014 are essential to your major and what topics are not? This information could help us as we try to figure out how to include Pathways learning objectives.

Finally I note that, under current university Advanced Standing policy, students who have certain admissions characteristics and who get a good enough grade in Math 1025 can get credit for Math 1014 without taking the Math 1014. This observation suggests a potentially efficient way for your students to collect Pathways quant/comp credit. The Math Department does not set or administer the university’s Advanced Standing policy. Without knowing how Stat 3604 will fit in Pathways requirements, I cannot guarantee that this suggestion will actually help students.

Peter Haskell
Professor and Chair
Department of Mathematics (MC 0123)
McBryde 460
Virginia Tech
225 Stanger Street
Blacksburg, VA 24061
540-231-6536
fax: 540-231-5960
phaskell@math.vt.edu

Hi Kerry,

We support the inclusion of PSYC 1004 as a required course in the proposed BSPH degree.

Best,

Bob

Robert S. Stephens, Ph.D.
Professor & Department Chair
Department of Psychology
Virginia Tech
Good afternoon. Indeed, this is fine. We are pleased to have the course included in the Bachelor’s degree in Public Health. I anticipate we may well offer a couple more health classes in the future such as health communication campaigns, etc.

Have a great week.

All the best,

Bob

Robert E. Denton, Jr. Ph.D.
W. Thomas Rice Chair
Department of Marketing
Pamplin College of Business
Professor and Department Head
Department of Communication
College of Liberal Arts & Human Sciences
115 Shanks Hall MC 0311
181 Turner Street NW
Virginia Tech
Blacksburg, VA 24061

540 231-7166 office
rdenton@vt.edu

Hulver, Matthew <hulvermw@vt.edu>

Hi Kerry,

We approve BSPH students enrolling in HNFE 1004, HNFE 2664, and HNFE 3634. I intended to follow up with you last week about HNFE 2664 from the recent HNFE curriculum committee meeting. They had one additional edit to the learning indicators so Renee will be making that change but then working to finish the general education proposal so it all goes through at one time. The committee is supportive of HNFE 2664 being on the checksheet for the PHS undergraduate degree proposal and would like to revisit cross-listing once the degree is approved. They would like additional information on whether the course will be co-taught or if it will be taught by each department in different terms, and how content would be consistent if taught by departments in different terms. Perhaps we can meet in the next week or two to talk through those details? Thank you. Matt
Dear Kerry,

The department of sociology is pleased to have SOC 1004 (Introductory Sociology) and SOC 4074 (Medical Sociology) included in your new degree program.

Best,

John

John Ryan
Professor and Chair
Dept. of Sociology
Virginia Tech
560 McBryde Hall
Blacksburg, VA 24060
540-231-9396
http://liberalarts.vt.edu/academics/majors-and-minors/sociology-major.html

______________________________

Dear Kerry,

The Department of Statistics is pleased to support the inclusion of STAT 3615 in the proposed Bachelor of Science in Public Health degree (subject to the usual caveat on the availability of resources, of course). We believe this degree is an exciting addition to Virginia Tech’s burgeoning health and medical educational and research capabilities.

Sincerely,

Ron

R.D. Fricker, Jr., Ph.D.
Professor and Head
Department of Statistics
Hutcheson Hall, room 406A
250 Drillfield Drive
Blacksburg, VA 24061
540-231-7754 (office)
831-869-8414 (cell)
rfr@vt.edu
Appendix C

BSHP Degree Support Letters
In 1975, the university received a significant bequest from the estate of Mr. John Lee Pratt of Stafford County, following his death on December 20, 1975. The bequest was divided equally into two distinct parts, one to support Animal Nutrition and one to support the College of Engineering. According to the will, the bequest for Animal Nutrition was to be used to promote the study of animal nutrition by supplementing salaries, providing equipment and materials to be used for experiments in feeding and in the preparation of feeds for livestock and poultry, and publishing and disseminating the research results of the studies. The will provided that the bequest for the College of Engineering should be used to support research and scholarships.

Distributions of the Pratt Estate were received in several installments: $9,561,819 in 1975, $1,330,000 in 1977, $47,000 in 1979, and $30,164 in 1981, for a total of $10,968,983. Over the years, the Pratt endowment has grown to $46.49 million, as of June 30, 2017. The following paragraphs summarize some of the major accomplishments of the College of Engineering and the Animal Nutrition Programs that are directly tied to the funding provided by the Pratt estate.

When the Pratt Endowment was originally established, the College of Engineering was in the early stages of becoming established as a nationally recognized leader in engineering education. The Pratt Endowment has played a significant role over the years in allowing the College to enrich its pool of students and to offer additional international study opportunities to students and faculty.

The expenditure of income funds from the Pratt Endowment provides an unusual opportunity to support an animal nutrition program of high quality. Use of these endowment earnings has concentrated on enhancing research and educational opportunities beyond what departments could do with state and federal funding. The main funding strategy remains with strong support for Ph.D. training, direct research support, scientific equipment, and visiting professors that stimulate and inspire the faculty and students engaged in nutrition research.

**RECOMMENDATION:**

That the 2016-17 Pratt Funds Activity Statements for Animal Nutrition and the College of Engineering be approved.

November 6, 2017
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ENGINEERING

Income

Balance, July 1, 2016  $55,463
Endowment Income for 2016-17  958,801

Total Available  $1,014,264

Expenditures*

Undergraduate Scholarships $488,044
Undergraduate International Scholarships  60,000
Graduate International Scholarships  29,496
Graduate Research Scholarships  87,600
Graduate Fellowships  135,137
Graduate Tuition Scholarships  37,864
Graduate Recruitment for Research Programs  123,000

Total Expenditures  $961,141

Balance at June 30, 2017 to be carried to 2017-18  $53,123

*See Attachment A for Engineering programs supported by Pratt Funds.
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ANIMAL NUTRITION

Income
Balance, July 1, 2016 $ (13,699)
Endowment Income for 2016-17 930,498
Total Available $916,799

Expenditures*
Graduate Student Scholars $ 453,848
Nutrition Program Support Personnel 164,997
Undergraduate Scholarships & Research 158,150
Scientific Equipment & Supplies 33,776
Visiting Scholars & Seminars 38,974
Research Publications 0
Total Expenditures $849,745

Balance at June 30, 2017 to be carried to 2017-18 $ 67,054

*See Attachment B for Animal Nutrition Programs supported by Pratt Funds.
PRATT FUNDS: College of Engineering

The Pratt Endowment enriches the College of Engineering in many ways, adding to Virginia Tech's reputation. In fiscal year 2016-2017, Pratt Funds supported the following engineering programs: undergraduate scholarships, undergraduate and graduate international scholarships, graduate research assistantships, graduate fellowships and graduate tuition scholarships, and graduate recruitment for the College's research programs.

Undergraduate Scholarships

Spent: $488,044

Pratt Funds allow the College to offer Dean's Scholar scholarships to entering freshmen. These scholarships provide a four-year, $6,000 per academic year continuing commitment to each recipient provided at least a 3.5 grade point average is maintained. In fiscal year 2016-2017, Pratt Funds provided $6,000 scholarships to 67 students. An additional 70 students received scholarships ranging from $1,000 to $5,000.

Undergraduate International Scholarships

Spent: $60,000

Pratt funds provided scholarships to 60 undergraduate students participating in international experiences during the 2016-2017 academic year. Travel scholarships were provided to students to travel to countries in Europe and Africa, China, Nepal, Iceland, and New Zealand for conducting research and participating in conferences. Examples of research activities include participation in Green Program: Renewable Energy and Sustainability, Race and Reconciliation program in South Africa, and study abroad programs in various countries.

Graduate International Scholarships

Spent: $29,496

Pratt funds supported 15 graduate students undertaking a variety of international experiences. Examples of the international experiences include participation in dual degree programs, conferences, research, study of bridges in Switzerland and Germany, and study abroad programs.

Graduate Research Scholarships

Spent: $87,600

The College used Pratt funding to support graduate research assistants in the Institute for Critical Technology and Applied Science's (ICTAS) Doctoral Scholars Program. This program is a multi-disciplinary research effort coordinated by ICTAS, with significant contributions from participating departments, colleges, and the Graduate School. Students receive a graduate research scholarship of $32,000 per year for a maximum of four years. The program supported eight students in fiscal year 2016-17.
Graduate Fellowships and Graduate Tuition Scholarships

Spent: $173,001

Graduate Fellowships
Each engineering department receives a portion of Pratt funds to use for graduate fellowships. In fiscal year 2016-2017, 55 students received Pratt Fellowships ranging from $36/month to $550/month. These fellowships supplement existing assistantships, allowing the College to offer competitive compensation packages to graduate students being recruited by other top engineering colleges.

Spent: $135,137

Graduate Tuition Scholarships
Engineering departments have the option of using Pratt Fellowship funding for tuition remission scholarships for graduate students. In fiscal year 2016-2017, departments provided partial or complete tuition for six graduate students from Pratt funds.

Spent: $37,864

Graduate Recruitment for Research Programs

Spent: $123,000

The College’s departments readily acknowledge that the use of Pratt Funds to support visiting prospective graduate students substantially increases our enrollment of top-quality graduate students and is critical to the College’s research programs. In fiscal year 2016-2017, this funding supported the travel expenditures for over 180 prospective graduate students.
PRATT FUNDS: Animal Nutrition

The John Lee Pratt Endowment has been instrumental in enhancing the quality of the university’s animal nutrition programs at Virginia Tech. The Pratt Endowment objective as specified in John Lee Pratt’s bequest is to "promote the study of animal nutrition, provide equipment and materials for feeding experiments and the preparation of livestock and poultry feeds, and to publish and disseminate the practical results from this research." In an effort to better meet the original goals of the Endowment in enhancing Animal Nutrition programs and attract high quality graduate scholars, the College of Agriculture and Life Sciences Pratt Endowment Executive Council modified the process of awarding the Pratt funds in 2011. The process seeks proposals that enhance faculty programs in Animal Nutrition by aiding in the establishment of new interdisciplinary and externally-funded research, augmenting established funded research, or bridging gaps in projects between periods of extramural funding. Graduate student and visiting scholar support is a major component of these projects. In 2017 we funded 14 active projects from two proposal cycles. The programs of 14 faculty members located in seven different departments are supported through these 14 projects. A total of 12 graduate students are funded by these projects.

Direct support of stipends and operations and enhancement of graduate programs through equipment purchases and visiting scientists are the primary expenditures. The total net expenditure for FY17 was $849,745 for the continuing program. The main categories of expenditures were as follows:

- Graduate Student Scholars (PhD & MS) 53.4%
- Nutrition Program Support Personnel 19.4%
- Undergraduate Program Scholarships & Research 18.6%
- Scientific Equipment and Supplies 4.0%
- Visiting Scholars and Seminars 4.6%
- Research Publications 0%

**Graduate Student Scholars**

Spent: $453,848

The Pratt program has now matured and currently 14 scholars are enrolled in the program. These students are from several states and countries and are selected based on excellence in their academic and research accomplishments. They receive a Ph.D. or M.S stipend plus payment of all required tuition and fees. Additionally, each MS or PhD candidate receives $2,500, to be used for operational expenses of their research programs.

**Nutritional Program Support Personnel**

Spent: $164,997

Research technicians in the field of animal nutrition are a key component of Pratt funding. The Pratt funds provide partial support of three technicians in animal and dairy
sciences. These technicians are essential in assisting with the necessary sample preparation and data collection for research performed by the scientists engaged in animal nutrition projects in proteomics, ruminant nutrition, and nutrient management.

**Undergraduate Program Scholarships and Research**  
**Spent: $158,150**

Over 50 outstanding freshmen students were awarded $1,000 merit scholarships, each, upon entering departments which offer programs in animal nutrition. In addition, 10 Pratt Senior Animal Nutrition Research Scholars received scholarships ($1,500 each) and research support ($1,000 each). This exciting program allows outstanding seniors to participate in undergraduate research programs working directly with a faculty researcher. They report their research results at a symposium each spring. Many of these students pursue graduate programs in animal nutrition.

We continued funding for the Pratt Study Abroad Initiative, which is made available to students planning a study abroad experience that involves study or research related to animal nutrition. This year’s recipients participated in faculty-led study abroad classes. During winter session 2016, $2,000 was awarded for travel to New Zealand where recipients toured progressive dairy and venison farms and businesses. In summer 2016, $12,000 was awarded for travel to the United Kingdom where recipients studied at three European colleges and toured livestock operations.

**Scientific Equipment and Supplies**  
**Spent: $33,776**

Expenditures for equipment and research space renovations continued to emphasize the needs of programs focusing on animal nutrition at various units at the university. The small equipment (<$10,000) needs were implemented based on the desire of the faculty to achieve the goals of the proposed projects. We were unable to issue a request for proposals for large equipment this fiscal year due to the large number of graduate students that were being funded by Pratt awards.

**Visiting Scholars and Seminars**  
**Spent: $38,974**

An important stimulus for research programs in animal nutrition is the presence of visiting scientists in seminars, in the classroom, and in the laboratory. A nutrition seminar is regularly supported by Pratt to bring in outstanding speakers from other institutions and industry. Other scientists visit for periods of time ranging from a few days to several months. Visitors supported by Pratt present seminars for the university community and interact with animal nutrition faculty and students in formal and informal instructional settings including laboratories. Visiting scientists/scholars expenditures are higher than the amounts used in recent years due to the new process of funding proposals as some of these proposals include visiting scientists as a part of their research plan.

**Research Publications**  
**Spent: $0**

The program still allows for paying the publication costs of research journal articles resulting from student dissertations. Very few faculty members, however, request the
payment of their publication costs from Pratt funds, mainly because they either include the publication costs in their external grants or many journals have discontinued their charging policy for publication of research articles. The Pratt funded faculty, are however, very productive and have published over 120 publications on animal nutrition over the past five years.

**Summary**

The Pratt funds continue to have significant impacts on the Virginia Tech programs in animal nutrition. The process of awarding the Pratt Funds to faculty, including the peer review process established for selection of proposals based on their scientific merits and potential to enhance animal nutrition programs, has greatly enhanced the quality of the programs and is enabling the faculty to become more competitive for external funding at the national level.
RESOLUTION FOR EXCLUSION OF CERTAIN OFFICERS/DIRECTORS

WHEREAS, Virginia Polytechnic Institute and State University ("Virginia Tech") was determined by the Department of Defense (DoD) to be a facility authorized to be eligible for access to classified information or award of classified contracts in 1960 and years following, with the most recent authorization in 2011; and

WHEREAS, in accordance with the National Industry Security Program Operating Manual (NISPOM), Cognizant Security Agencies (CSAs) require certain principal officers, directors, partners, regents, or trustees, and those occupying similar positions at institutions of higher education meet the personnel security clearance requirements established for the level of the institution's facility security clearance or be formally excluded; and

WHEREAS, the NISPOM permits the exclusion from the personnel clearance requirements of said principal officers et al. on the basis that these cited individuals shall not require, shall not have, and can be effectively excluded from access to all classified information disclosed to Virginia Tech, and do not occupy positions that would enable them to affect adversely corporate policies or practices in the performance of classified contracts, as determined by a CSA;

NOW, THEREFORE, BE IT DECLARED that the Board of Visitors hereby formally appoints a managerial group with the authority and responsibility for the negotiation, execution, and administration of classified contracts ("Key Management Personnel"), consisting of the following principal officers within Virginia Tech: President, University Legal Counsel, Chief Contracting Officer, Vice President for Research and Innovation, Senior Research Compliance Officer, Senior Contracts Officer, Facility Security Officer, and Insider Threat Program Senior Official (specified by name in Attachment A); and

BE IT RESOLVED that the President and the said managerial group at the present time do possess, the required security clearance; and

BE IT RESOLVED FURTHER that in the future, when a CSA determines that additional Virginia Tech officials must be added to said managerial group and be granted personnel clearances or excluded from classified access pursuant to the NISPOM, such requirements shall be made and approved by the Key Management Personnel, and not the Board of Visitors, unless approval by the Board of Visitors is formally required by the CSA; and

BE IT RESOLVED FURTHER, that the appended list of all members of the Board of Visitors and certain University Principal Officers (specified by name in Attachment B) shall not require, shall not have, and can be effectively excluded from access to all classified information in the possession of Virginia Tech, and do not occupy a position that would enable them to affect adversely Virginia Tech policies or practices in the performance of classified contracts. A copy of this resolution shall be provided to CSAs as required by the NISPOM.

RECOMMENDATION:

That this resolution be adopted.

November 6, 2017
ATTACHMENT A:

List of Key Management Personnel by name who must be granted personnel clearances or excluded from classified access pursuant to the NISPOM per Board of Visitors Resolution, April 2, 2017.

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Dr. Timothy Sands</td>
</tr>
<tr>
<td>University Legal Counsel</td>
<td>Ms. Kay K. Heidbreder, Esq.</td>
</tr>
<tr>
<td>Chief Contracting Officer</td>
<td>Mr. M. Dwight Shelton, Jr.</td>
</tr>
<tr>
<td>Vice President for Research &amp; Innovation</td>
<td>Dr. Theresa Mayer</td>
</tr>
<tr>
<td>Senior Research Compliance Officer</td>
<td></td>
</tr>
<tr>
<td>and Senior Contracts Officer</td>
<td>Ms. Linda R. Bucy</td>
</tr>
<tr>
<td>Facility Security Officer and Insider Threat</td>
<td>Mr. David A. Brady</td>
</tr>
<tr>
<td>Program Senior Official</td>
<td></td>
</tr>
</tbody>
</table>
ATTACHMENT B:

List of members of the Virginia Tech Board of Visitors excluded per Board of Visitors Resolution, November 6, 2017.

Ms. Greta J. Harris  
Mr. Charles T. “C.T.” Hill  
Ms. Anna L. James  
Mr. Mehmood S. Kazmi  
Ms. Letitia A. Long  
Mr. Robert J. Mills Jr.  
Mr. L. Chris “Chris” Petersen  
Ms. Deborah “Debbie” Leigh Martin Petrine (Vice-Rector)  
Mr. Michael “Mike” J. Quillen  
Rev. Wayne H. Robinson  
Mr. Mehul P. Sanghani  
Mr. Dennis H. Treacy (Rector)  
Mr. Horacio A. Valeiras  
Mr. Jeff E. Veatch

List of University Principal Officers to be excluded per Board of Visitors Resolution, April 2, 2017.

Executive Vice President and Provost  
Dr. Thanassis Rikakis
RESOLUTION TO INTEGRATE THE VIRGINIA TECH CARILION SCHOOL OF MEDICINE INTO VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

WHEREAS, Virginia Polytechnic Institute and State University (“Virginia Tech”) and Carilion Clinic have a long history of collaborative research and development of programs that are beneficial to both parties, as well as a history of strengthening the state, local, and surrounding Southwest Virginia economies with increased research funding and private investment; and

WHEREAS, the parties established a medical school titled the Virginia Tech Carilion School of Medicine to assist in the alleviation of the shortage of physician specialists in the Southwest Virginia region; and

WHEREAS, consistent with Virginia Tech’s strategic initiatives, biomedical education and research are areas of special interest for the continued growth of Virginia Tech; and

WHEREAS, on August 29, 2016, the Virginia Tech Board of Visitors affirmed its intent to acquire and integrate the Virginia Tech Carilion School of Medicine into Virginia Tech as its ninth college; and

WHEREAS, the acquisition and integration of the Virginia Tech Carilion School of Medicine into Virginia Tech requires notification, review, and approval by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the State Council of Higher Education for Virginia (SCHEV), the Virginia Tech Board of Visitors, the Carilion Clinic Board of Directors, and the Virginia Tech Carilion School of Medicine Board of Directors, and other accrediting or regulatory bodies, as required;

NOW, THEREFORE, BE IT RESOLVED that effective July 1, 2018, the Virginia Tech Carilion School of Medicine will be acquired and fully integrated into Virginia Polytechnic Institute and State University as its ninth college.

RECOMMENDATION:

That the resolution expressing the intent to integrate the Virginia Tech Carilion School of Medicine into Virginia Tech be approved.

November 6, 2017
Impact of Increased Enrollment on the Division of Student Affairs

Patty Perillo, Ph.D.
Vice President for Student Affairs
Board of Visitors
November 6, 2017
Division of Student Affairs Departments

- Cook Counseling Center
- Corps of Cadets
- Cranwell International Center
- Cultural and Community Centers
- Dean of Students
- Dining Services
- Family and Alumni Relations
- Fraternity and Sorority Life
- Hokie Wellness
- Housing and Residential Life
- Leadership Education Collaborative
- Learning Partnerships
- New Student Programs
- Recreational Sports
- Schiffert Health Center
- Services for Students with Disabilities
- Student Conduct
- Student Engagement and Campus Life

ADMINISTRATIVE

- Advancement
- Assessment and Professional Development
- Communications
- Finance
- Human Resources
- Information Technology
Undergraduate Student Enrollments

We have experienced a 15.6% increase in enrollments over the past decade and a 10.7% increase over the past four years.
## Aspirational Enrollment Projections First-Time Freshmen On-Campus

(presented by Provost Rikakis at September 2017 BOV Meeting)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Total First-Time Freshmen (FTF)</strong> (In and Out of State)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total FTF at census 5,872</td>
<td></td>
<td></td>
<td>6830</td>
<td>6954</td>
<td>7078</td>
<td>7203</td>
<td>7327</td>
<td>7451</td>
</tr>
<tr>
<td>Actual Post-Census = 6769</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total/ALL Undergrads (+ new transfers, continuing)</strong></td>
<td></td>
<td></td>
<td>27,193</td>
<td>27,500</td>
<td>28,000</td>
<td>28,500</td>
<td>29,000</td>
<td>29,500</td>
</tr>
<tr>
<td>Total ALL at census 25,741</td>
<td></td>
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</tr>
</tbody>
</table>
Enrollment History and Future Projections
(source: Virginia Tech Institutional Research, 2017)
## Enrollment Planning and Projections – Space

(presented by Provost Rikakis at September 2017 BOV Meeting)

<table>
<thead>
<tr>
<th>Project</th>
<th>Projected Timeline</th>
<th>Funding Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity and Innovation District Living Learning Community</td>
<td>Fall 2020</td>
<td>Capital Project – Auxiliary and Athletics Funded with potential for internal operating lease for School of Visual Arts and School of Performing Arts spaces. Potential location for Student Success Center.</td>
</tr>
<tr>
<td>Intelligent Infrastructure for Human-Centered Communities (IIHCC) Complex – Dining Center</td>
<td>Fall 2020</td>
<td>Capital Project – Combination of Private, Auxiliary, and E&amp;G Funded</td>
</tr>
<tr>
<td>Global Business and Analytics Complex Living Learning Community</td>
<td>Fall 2022</td>
<td>Capital Project – State and Philanthropy Funded</td>
</tr>
<tr>
<td>War Memorial Hall Renovation</td>
<td>Spring 2022</td>
<td>Auxiliary Funded with E&amp;G Lease for School of Education</td>
</tr>
</tbody>
</table>
Given increased enrollments over the last decade, and a vision to grow enrollments over the next five years, there is a gap between where we are now and where we will be in five years with new residence halls, dining center, community spaces and health and wellness enhancements. In order to maintain the extraordinary student experience promised to all, we are filling the current gap.
DINING AND HOUSING
Dining Sales Plan 1996-2017

Dining Plan Sales Comparison Fall Semester 1996-2017

Active Plans per Fall Semester

- TOTAL ALL PLANS
- On-Campus
- Off-Campus
Housing and Residence Life

- First Year Student Residential Population
  - 2012-2013: 57.9%
  - 2017-2018: 71.3%
- Slow Down Renovations
HEALTH AND WELLNESS
Approximately 12% of the student body utilizes counseling; hence, an increase in enrollments means more students seen. And, currently, there is a 2 – 3 week wait for new appointments; students in crisis will be seen immediately.
Schiffert Health Center

Increased needs in:
- Allergy care
- Immunizations
- Cardiology care
Recreational Sports

- Space limitations
- Growth in sports clubs program halted
Services for Students with Disabilities

- Turnaround time of intake to accommodation setup increased from 3 to 10 days
- Increased requests for:
  - Special housing accommodations
  - Legal / illegal Service Animals or Emotional Support Animals
STUDENT
CENTERS
## Squires Student Center

<table>
<thead>
<tr>
<th>Squires Traffic for entire year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16</td>
<td>FY17</td>
</tr>
<tr>
<td>1,028,219</td>
<td>1,125,117</td>
</tr>
<tr>
<td><strong>96,898 +</strong></td>
<td></td>
</tr>
</tbody>
</table>
Increased diversity means a greater need for social and academic support for students. These programs include mentoring opportunities, networking, cultural programs, and academic support. There is a need for more space for current and future centers, as well as increased staffing needs.
QUESTIONS, COMMENTS?
Strategic Strengths of the College of Liberal Arts and Human Sciences
“Technology alone is not enough. It’s technology married with liberal arts, married with the humanities, that yields us the results that make our hearts sing.” —Steve Jobs

The Breadth of the Liberal Arts

Humanities
- ASPECT
- English
- Modern and Classical Languages and Literatures
- History
- Philosophy
- Religion and Culture

Performing Arts
- Music
- Theatre
- Cinema

Social and Human Sciences
- Apparel, Housing, and Resource Management
- Communication
- Education
- Human Development and Family Science
- Political Science
- Science, Technology, and Society
- Sociology

Leadership
- Air Force ROTC
- Army ROTC
- Naval ROTC
Recognizing that technology alone is never a solution and that innovation is a fundamentally human achievement, the College of Liberal Arts and Human Sciences prepares students to bring perspectives from the arts, humanities, and social sciences to achieve meaningful solutions to complex human problems.
Key Areas of Strategic Strength

• The Individual in Society
• Humanities, Science, and Technology
• Diversity and Social Justice
• Humans and Their Environments
• Policy and People
• Narrating the Human Experience
• Human-Centered Approaches to Security
Ariana Wyatt combines opera and gaming technology to inspire undergraduate learning.
Sylvester Johnson infuses technology with insights from the humanities.
Sonja Schmid is developing an education program for responders to nuclear disasters.

Social Sciences

Diversity and Social Justice

Policy and People

Humanities, Science, and Technology

Humans and Their Environments

Human-Centered Approaches to Security

The Individual in Society
The Virginia Tech Research Enterprise: a Financial Perspective

Board of Visitors
November 6, 2017
Why does research support matter?

**DISCOVER**
ask the right questions

- Explore topics of human, market, social relevance
- Advance knowledge creation
- Stay on the cutting edge
- Serve national and global interests

**ENGAGE**
as a member of the scientific community

- Collaborate as a community
- Work alongside faculty, undergrads, and graduates
- Serve private and public sector partners
- Create experiential learning

**IMPACT**
deliver regional, state, national, global

- Deliver solutions to greatest challenges
- Disseminate knowledge
- Support the community
- Promote informed culture and policy change
- Commercialize discoveries
- Build the brand
Virginia Tech’s contributions to science and technology are a critical and prominent element of our culture. They support the very fabric of who we are and where we hope to go.

In STEM-H disciplines, a strong correlation exists between competitive external funding and other measures of success, including:

- scholarly journal articles
- advisory boards
- relevance to society
- fundamental discoveries
- transformative change in industry
Where we are: NSF-reported research expenditures

Over the last 10 years, Virginia Tech has sustained strong growth in total R&D expenditures as reported in the NSF Higher Education R&D (NSF HERD) survey, allowing us to deliver game-changing ideas and technologies.

1 Includes non-competitive state funds, AG capacity funds (Agency 229), VT-ARC, 50% VTT LLC, gifts to support research, and subcontracts to other organizations.
Extramural total*: $302.5M

Federal only*: $195.6M

*Includes non-competitive state funds, AG capacity funds (Agency 229), VT-ARC, 50% VTT LLC, gifts to support research, and subcontracts to other organizations
What does external funding support?

For every *

$1.00

in Modified Total Direct Costs (MTDC) spent at Virginia Tech

Virginia Tech is reimbursed

$0.61

in Facilities and Administrative (F&A) costs

In FY 17, externally sponsored research expenditures totaled $233.5 M – excluding non-competitive state funds, Agency 229, VT-ARC, and VTT LLC:

$178.2 M

$55.3 M

Total Direct Costs

F&A Costs

= $146.0 M (MTDC) + $32.3 M (excluded DC’s)

* not all grants carry the full capped F&A rate of 61% (e.g., USDA); the uncapped F&A rate on DOD contracts is 65%
The university research enterprise

The NSF Higher Education Research & Development (HERD) survey displays 30+ data sets to account for differences in university research portfolios. The university research enterprise is often viewed by expenditures in three common pillars: non-medical academic colleges, academic medical college/school, and affiliated thematic research units. Research-intensive universities typically have at least two of the three.
Virginia Tech is #22 when ranked by all non-medical school R&D expenditures for FY 2015.

The total R&D expenditures in this table include all external funding (competitive and non-competitive) and institutional support.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Non-Medical</th>
<th>Medical</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Johns Hopkins U. a</td>
<td>1,679,859</td>
<td>625,820</td>
<td>2,305,679</td>
</tr>
<tr>
<td>2</td>
<td>Massachusetts Institute of Technology</td>
<td>930,719</td>
<td>0</td>
<td>930,719</td>
</tr>
<tr>
<td>3</td>
<td>U. Texas, M. D. Anderson Cancer Center</td>
<td>833,406</td>
<td>0</td>
<td>833,406</td>
</tr>
<tr>
<td>4</td>
<td>Texas A&amp;M, Health Science Center</td>
<td>814,620</td>
<td>52,058</td>
<td>866,678</td>
</tr>
<tr>
<td>5</td>
<td>U. Michigan, Ann Arbor</td>
<td>805,834</td>
<td>563,444</td>
<td>1,369,278</td>
</tr>
<tr>
<td>6</td>
<td>U. California, Berkeley</td>
<td>788,505</td>
<td>0</td>
<td>788,505</td>
</tr>
<tr>
<td>7</td>
<td>Harvard U.</td>
<td>776,420</td>
<td>237,333</td>
<td>1,013,753</td>
</tr>
<tr>
<td>8</td>
<td>Georgia Institute of Technology</td>
<td>765,370</td>
<td>0</td>
<td>765,370</td>
</tr>
<tr>
<td>9</td>
<td>U. Wisconsin-Madison</td>
<td>763,051</td>
<td>306,026</td>
<td>1,069,077</td>
</tr>
<tr>
<td>10</td>
<td>Penn State, Hershey Medical Center</td>
<td>698,465</td>
<td>92,566</td>
<td>791,031</td>
</tr>
<tr>
<td>11</td>
<td>U. Texas, Austin</td>
<td>646,273</td>
<td>4,335</td>
<td>650,608</td>
</tr>
<tr>
<td>12</td>
<td>U. Washington, Seattle</td>
<td>645,304</td>
<td>535,259</td>
<td>1,180,563</td>
</tr>
<tr>
<td>13</td>
<td>U. Illinois, Urbana-Champaign</td>
<td>639,817</td>
<td>0</td>
<td>639,817</td>
</tr>
<tr>
<td>14</td>
<td>U. Minnesota, Twin Cities</td>
<td>635,400</td>
<td>245,218</td>
<td>880,618</td>
</tr>
<tr>
<td>15</td>
<td>Cornell U.</td>
<td>599,566</td>
<td>354,846</td>
<td>954,412</td>
</tr>
<tr>
<td>16</td>
<td>U. California, San Diego</td>
<td>561,519</td>
<td>539,947</td>
<td>1,101,466</td>
</tr>
<tr>
<td>17</td>
<td>Purdue U., West Lafayette</td>
<td>558,611</td>
<td>0</td>
<td>558,611</td>
</tr>
<tr>
<td>18</td>
<td>U. California, Davis</td>
<td>554,564</td>
<td>166,513</td>
<td>721,077</td>
</tr>
<tr>
<td>19</td>
<td>Rutgers, New Jersey, New Brunswick</td>
<td>509,678</td>
<td>118,935</td>
<td>628,613</td>
</tr>
<tr>
<td>20</td>
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<td>22</td>
<td>Virginia Tech</td>
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<td>0</td>
<td><strong>504,282</strong></td>
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<tr>
<td>23</td>
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<td>479,769</td>
<td>338,112</td>
<td>818,881</td>
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<tr>
<td>24</td>
<td>U. California, Los Angeles</td>
<td>472,843</td>
<td>548,384</td>
<td>1,021,227</td>
</tr>
<tr>
<td>25</td>
<td>North Carolina State U.</td>
<td>468,293</td>
<td>0</td>
<td>468,293</td>
</tr>
</tbody>
</table>

*FY 16 HERD will be released in Nov 17
What are affiliated research units?

**Definition**

**Affiliated Research Units** are strategic research institutes or centers housed within or associated with a university. These organizations maintain essential research, development and engineering "core" capabilities; maintain long-term strategic relationships with critical sponsors; operate in the public interest, free from real or perceived conflicts of interest; and support economic development. Collaboration with the educational and research resources available at their universities enhances the unit’s ability to meet the needs of their sponsors.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Non-Medical</th>
<th>Medical</th>
<th>Total</th>
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<td>625,820</td>
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<td>9</td>
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<td>306,026</td>
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<td>10</td>
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Universities with affiliated DoD research units receive sole source funding, which positions them for larger competitive S&T funding.
- Hopkins: APL
- MIT: Institute for Soldier Nanotechnologies
- Georgia Tech: GTRI
- UT Austin: ARL
- Penn State: ARL
- U Washington: APL

NSF HERD: a different view
Changing landscape: thematic research institutes

The **Affiliated Thematic Research Institutes and Centers** provide a framework to maintain essential research, development and engineering “core” capabilities and long-term strategic relationships with critical sponsors. Institute researchers are largely funded through competitive external grants and contracts. College faculty and students participate on many of the external research programs managed by these institutes and centers.

- **Virginia Tech Transportation Institute**
  - grew out of University Transportation Center in 1998
  - VTT, LLC (SoVAMotion) started in 2010
  - 2000

- **Virginia Bioinformatics Institute**
  - rebranded as Biocomplexity Institute in 2016
  - 2000

- **Virginia Tech Carilion Research Institute**
  - 2010

- **Virginia Tech Applied Research Corporation**
  - 2011

- **Hume Center for National Security and Technology**
  - 2017

*VTCRI director reports to the Provost*
It’s been more than 25 years since VTTI was founded. Then, ... 15 employees. Today, we stand at more than 475 employees, house the largest group of driving safety researchers in the world, sponsored research expenditures of more than $36 million annually, have an infrastructure of more than $110M, and support 140 students who are gaining a leading research experience.

Not by accident: VTTI is now the largest transportation research institute in the country.
Virginia Tech’s changing landscape

Over the past 15 years, changes in our organizational design has resulted in an evolving assembly of research capabilities, strengths, and opportunities.

College of Liberal Arts and Human Sciences

- ASPECT - alliance for social, political, ethical, and cultural thought*
- apparel, housing, resource management communications
- english
- history
- human development and family science*
- philosophy

College of Science

- academy of integrated science
- biochemistry
- biological sciences*
- chemistry*
- computational modeling and data analytics
- economics*
- geosciences*
- mathematics*

- political science
- religion and culture
- science, technology and society
- sociology
- education
- performing arts
- ROTC

2003

College of Arts and Sciences is splits

Participation in 15 Interdisciplinary Graduate Education Programs (IGEP’s)

*offers Ph.D. degree
It's been more than 25 years since VTTI was founded. Then, we had 15 employees. Today, we stand at more than 475 employees, house the largest group of engineers, have an infrastructure of more than $110M, and support 140 students who are gaining a leading research experience.

Not by accident: VTTI is now the largest transportation research institute in the country.

9th college to open in 2018: The Virginia Tech Carilion School of Medicine will become a college within Virginia Tech a decade after its creation by a private-public partnership.
Changing landscape: academic research institutes

The Interdisciplinary Academic Research Institutes provide institutional support to faculty to organize and focus strategic research, education, and outreach efforts around cross-cutting societal problems rather than traditional disciplines. The institutes provide a framework to support interdisciplinary faculty collaboration and communication, which ranges from funding to seed new interdisciplinary research initiatives to managing state-of-the-art facilities and laboratories.

- **2006**
  - Institute for Critical Technology and Applied Science*

- **2007**
  - Institute for Culture, Society, and Environment

- **2008**
  - Fralin Life Sciences Institute
    - formed through the merger of:
    - Fralin Biotechnology Center (1995) and Institute for Biomedical and Public Health Sciences (2003)

- **2011**
  - Institute for Creativity, Arts, and Technology*

*ICTAS director reports to the Dean of College of Engineering; ICAT director reports to the Provost
External Research Expenditures by Performing Unit

Medical Research Unit
- VTCRI $12.6 M

Thematic Research Units
- BI $13.6 M
- VTTI $32.0 M
- Hume $5.2 M
- VT-ARC $7.0 M
- VTT LLC $2.2 M

International Programs
- International $7.8 M
- VTCRI $12.6 M

Academic Colleges
- Ag and Life Sciences $34.9 M
- Engineering $88.9 M
- Natural Resources $14.8 M
- Science $21.5 M
- Vet Med $6.2 M
- Other Colleges $7.0 M

FY 16: excludes non-competitive state funds and Agency 229; includes gifts to support research and subcontracts to other organizations
Strategic hiring of faculty is key to future growth

100 college tenure-line and research faculty are credited with 42% of external expenditures in academic colleges.
Strategic hiring of faculty is key to future growth

100 College Tenure-line (with classroom instruction) and Research Faculty

100 faculty with appointments in thematic research institutes

Strategic relationships with core sponsors result in higher program expenditures. Many of these same programs are leveraged by college faculty.
We have an excellent opportunity to build an even stronger externally funded research enterprise through strategic faculty hiring in colleges and institutes.
Characteristics of PIBB Model

Results-Based
- Budgeting connects to planning
- Budget provides transparent performance incentives

Comprehensive
- Quantity is connected to quality
- Supports diversified outcomes

Data-Driven and Informed
- Utilizes extensive and shared decision support system

Adaptable
- Allows for continuous calibration and changes to shared goals
PIBB Budget Process

- Shared Performance Goals
- Activity Based Resource Allocations
- Realignment & Adjustment of Resources & Goals
- Semi-Annual Assessment of Outcomes

Periodic Modifications to Incent Different Outcomes
PIBB Budget Development

Shared Performance Goals
- Collaborative metrics and goals
- Output-based, quantity metrics
- Outcome-based, quality metrics

Activity-Based Resource Allocations
- Dollar values assigned to metrics
- Allocations based on goal setting
PIBB Budget Implementation

Semi-Annual Assessment of Outcomes
- Student Success Reviews – Fall Summit
- Faculty Success Reviews – Spring Summit

Adjustment of Resources and Goals
- Resource adjustments made during academic year based on performance
- Goal adjustments made during budget development based on revised expectations
Shared Data Environment

- Fosters common understanding of performance
- Supports effective decision-making at all levels of the institution

Periodic Modifications to Incent Different Outcomes

- Countering unproductive behavior
- Addressing “sticky” problems with more precision
- Turning focus towards new directions
THANK YOU

Jeff Earley
Associate Vice Provost for Finance
Virginia Tech Board of Visitors Meeting
November 6, 2017
Council of College Deans Update

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

Robert Sumichrast, dean of the Pamplin College of Business, serving as a liaison with the council of college deans will update the committee on behalf of the council.
Cyril Clarke, interim executive vice president and provost, will provide briefing remarks related to academic affairs.
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Various Campus Locations – see detailed schedule
Meet in the lobby of The Inn 15 minutes prior to departure

11:30 a.m. – 7:00 p.m.
Saturday, November 4, 2017

AGENDA ITEM

1. Lunch with students in West End Market
2. Campus Tour
   REPORTING
   RESPONSIBILITY
   Dr. Sherwood Wilson
3. Campus Master Plan Update
   Mr. Jason Soileau
4. Continue Campus Tour
   Dr. Sherwood Wilson

The Buildings and Grounds Committee will reconvene in a joint open session with the
Compliance, Audit and Risk Committee at 9:45 a.m. on Sunday, November 5, 2017 in the
Solitude Room at the Inn at Virginia Tech.
November 2017 BOV Tour Route – Key

Leg 1 (stops 1 – 5)
Leg 2 (stops 6 – 8)
Leg 3 (stops 9 – 11)

Hashed lines = participants walking
Dotted lines = bus repositioning
Update on the Campus Master Plan

BUILDINGS AND GROUNDS COMMITTEE

November 4, 2017

Background
University officials are hard at work on the development of a new Master Plan that will shape how Virginia Tech's Blacksburg, Roanoke, and National Capital Region campuses grow to support the vision set out in the Beyond Boundaries initiative and anticipated enrollment growth.

The 2017 Master Plan for Virginia Tech will integrate the academic mission of the university to develop VT-shaped individuals by focusing on infrastructure, quality of space, space analysis and land use, and student life initiatives. It will incorporate strategies for the creative and efficient use of existing space, as well as the development of new facilities that encourage interdisciplinary collaboration and partnerships and new ideas for housing an increasingly transient population of students, faculty, and researchers.

The master planning process allows the university to holistically take inventory of where it is and think strategically about where and how it would like to invest. Planners are being challenged to think broadly about how the improvement of structure and landscape can complement the university’s goals of collaboration among academic and research disciplines and enhance the student experience. The result will be an action based strategic plan encompassing programmatic and capital project goals and objectives for the next 10 years and beyond.

Goals and Vision
The proposed Master Plan is envisioned as more than an update of the previous plan; it is envisioned as a rethink of how Virginia Tech can best utilize the Blacksburg, Roanoke, and National Capital Region (NCR) campuses to support the mission and vision of the university. It will be the first major reassessment of physical planning at Virginia Tech in more than 30 years and will provide guidance for all three of the university's primary locations.

Goals
- Advancing as an internationally recognized, global land-grant institution.
- Strategically addressing the challenges and opportunities presented by the changing landscape of higher education.
- Planning for university growth.
- Planning for VT-shaped individuals.

Vision
The strategic direction for Virginia Tech, as expressed in the Beyond Boundaries initiative, aims to establish a long-term and forward looking vision that will place Virginia Tech at
the forefront of higher education. The emerging vision is one defined by “destination areas” – the themes around which interdisciplinary teaching, research, and outreach activities will be organized. This implies a move toward a more interdisciplinary and dynamic range of programs, activities, and partnerships with other institutions, businesses, and industries.

This emerging vision will require a new strategy for all three of Virginia Tech’s primary sites. It will require:

- New ways of organizing people and space with the goal of fostering engagement, interaction, and collaboration.
- Spatial arrangements will need to encourage innovation and new working relationships that go beyond established disciplines.
- Innovation districts, collaboration hubs, and a more deliberate integration of living and learning environments are anticipated outcomes.
- Environments that enable students to explore the full range of what Virginia Tech has to offer but with the guidance and direction that will lead to academic success.

This will require a reimagining of the student experience and the physical environments that contribute to the quality of that experience. The ultimate goal is to establish a vision and identity that details how Virginia Tech can operate as one entity across Blacksburg, Roanoke, and the National Capital Region. This will require innovative ideas for connecting the campuses and the National Capital Region through transportation and telecommunication—connections that take into consideration the user experience.

Blacksburg will continue to be the flagship campus for the undergraduate student experience and core academic and research programs. Roanoke will be the center for health-related professions, medical research, and business/industry partnerships. The National Capital Region will accommodate programs, research, and other activities that will benefit from proximity to the urban context of Washington, D.C.

Scope
While the overall Master Plan will focus on the Virginia Tech experience across the commonwealth, individual plans will be tailored to address the Blacksburg, Roanoke, and National Capital Region (NCR) campuses.

The greatest level of detail will be provided for Blacksburg, given the scale and complexity of the campus. Recommendations for the Roanoke campus and the National Capital Region will be provided with sufficient detail to strategically plan the teaching, research, outreach activities, and housing envisioned for those locations.

The Master Plan will consist of the following parts:
- Part A: Master Plan for the Blacksburg Campus;
- Part B: Additional Planning for the Blacksburg Campus including:
  - Space Study;
  - Student Life Initiatives/Creativity and Innovation District; and,
Process and Timeline
A comprehensive master planning process generally takes about 18 months.

Phases
Five phases of work will engage the senior administration, university professional staff, and the broader university community in the development of the Master Plan:

- **Phase 1: Discovery and Inventory** will focus on data gathering, synthesis, and analysis with the goal of establishing a detailed, data-informed foundation for the planning process.
- **Phase 2: Concept Development and Testing** will explore ideas and strategies for accommodating growth and responding to the teaching, research, and outreach mission at the Blacksburg, Roanoke, and National Capital Region campuses. This will include ideas for the creative and efficient use of existing space, imaginative new learning environments, opportunities for collaboration and innovation spaces, and strategies for housing and mobility within and between Virginia Tech’s locations across the commonwealth.
- **Phase 3: Plan Revision and Report Development** will focus on articulating the Virginia Tech vision for development across the Commonwealth. This will be supported by a report narrative and graphics that convey how all three campuses will contribute to the vision for the university.
- **Phase 4: Public Participation and Comment Period** will focus on the review of the Master Plan recommendations with members of the campus and broader communities.
- **Phase 5: Final Master Plan Documentation** will include the development of the executive summary, final narrative, and supporting documentation and graphics for the Master Plan. It will articulate a vision aligned with the emerging teaching, research, and outreach mission.

Timeline
- Phase I: Inventory and Analysis (May - September 2016)
- Phase II: Concept Plan Alternatives (October 2016 - June 2017)
  - Intelligent Infrastructure and Human Centered Community Destination Area Planning
  - Integrated Security Destination Area Planning
  - Creativity and Innovation District Planning
- Phase III: Master Plan Development (July - October 2017)
- Phase IV: Public Comment (September - November 2017)
- Phase V: Final Plan Documentation (November 2017 - early 2018)
Project Leadership
Consultant Team
Sasaki Associates is a multi-disciplinary firm of planners, urban designers, landscape architects, architects, and interior designers. To complete the project, they have teamed up with an experienced local firm familiar with the university – Draper Aden (storm water management); as well as national firms with Virginia Tech experience: AEI (mechanical engineering), Boynton Rothschild Rowland Architects (architecture assessment), Convergent Technology Design Group (IT/wi-fi), and VHB (transportation).

Virginia Tech Team
- Christopher H. Kiwus, Associate Vice President and Chief Facilities Officer, Facilities Department
- Jason P. Soileau, Assistant Vice President for Planning and University Architect, Facilities Department
- Michael W. Dunn, Transportation Planning Engineer, Facilities Department

Senior university leaders and a Buildings and Grounds Committee member were appointed to a Master Plan Executive Committee to provide strategic direction for the Master Plan Update. Additionally, a working Master Plan Committee – composed of staff and employee representatives to the Board of Visitors, stakeholders from across campus such as deans and directors, and community partners including the Town of Blacksburg and the Virginia Tech Foundation, Inc. – has helped inform the process and provide ongoing feedback as the project progresses.

Current Status
As of September 2017, the planning process is in the latter portion of the concept development phase. Following the conclusion of this phase, the effort will move into public comment and feedback. The majority of the planning process is anticipated to be completed by the end of the 2017 calendar year, with ancillary efforts projected to continue into early 2018.
Historically applied design standards and principles help to create a strong “Sense of Place”
Develop Facilities and Open Space Networks that facilitate Excellence in Inclusion and Diversity on the Virginia Tech Campus

Distributed Communities of Learning

Inclusive VT

Develop infrastructure to facilitate Distributed Communities of Learning that combine VT’s world-leading research, faculty and technology, with a strong experiential component designed to develop the VT-shaped student.

<table>
<thead>
<tr>
<th>Destination Areas</th>
<th>Living / Learning Communities</th>
<th>Innovation Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Matrix Structure and Instruments to Achieve the VT Shaped Student</td>
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</table>

Develop Facilities and Open Space Networks that facilitate Excellence in Inclusion and Diversity on the Virginia Tech Campus.
Identify, Create and Enhance
Spaces for Experiential Learning and Engagement
VIRGINIA TECH’S STRATEGIC ADVANTAGE: COMMUNITY!
Benefits of Community to the Student and University

Adjustment to the university for first-year students is significantly enhanced through the development of a friendship network and belonging to a diverse and inclusive community (Buote, et al., 2007).

Development of community and participation within a diverse and inclusive community teaches students how to live in a multicultural society and enhances their opportunities to build transformative leadership skills (Shields, 2013).

Students and Alumni who have had more positive and meaningful experiences in their undergraduate years are more likely to give their time and financial support (Garvey & Drezner, 2013; Daly, 2013; Newman & Petrosko, 2011).
Respect the Past...

Impact the Present...

Provide a Vision For The Future!

Only a Land Grant University with a spirit of Service...

like that embedded at Virginia Tech can evolve to create the

VT-Shaped Student!
Internationally Recognized and Highly Awarded Planning Firm!

2012 APA NATIONAL PLANNING FIRM OF THE YEAR
2007 ASLA FIRM OF THE YEAR
2005 AIA FIRM OF THE YEAR FINALIST
Planning Process
FLEXIBLE, RESPONSIVE + ITERATIVE

1. PEOPLE + MISSION
2. INVENTORY + ANALYSIS
3. CONCEPT PLAN ALTERNATIVES
4. PLAN REVISION + PUBLIC COMMENT
5. FINAL MASTER PLAN
MASTER PLAN DRIVERS
BEYOND BOUNDARIES
A Vision for the Campus of the Future
VT-Shaped Discovery

- VT SHAPED STUDENTS
- INTERDISCIPLINARY TEAMS
- PURPOSE-DRIVEN AND PERSON-CENTERED CURRICULUM

The VT student of 2047 learns by doing, creating, and engaging, service to humanity, and does so not in isolation or as an academic exercise but rather with the support of a community.
Distributed University Structure

INNOVATION HUBS + DESTINATION AREAS

BLACKSBURG DESTINATION AREAS
- Data Analytics & Decision Sciences
- Global Systems Science
- Intelligent Infrastructure for Human-Centered Communities

NCR DESTINATION AREAS
- Integrated Security

ROANOKE DESTINATION AREAS
- Adaptive Brain & Behavior
Planning for Growth
BLACKSBURG

2016

CAMPUS RESIDENTS 9,340
OFF-CAMPUS POPULATION 28,039
UNDERGRADS 15,978
STAFF 3,425
GRADS 4,652
FACULTY 3,984

2026

CAMPUS RESIDENTS 12,000
OFF-CAMPUS POPULATION 30,763
UNDERGRADS 17,530
STAFF 3,758
GRADS 5,104
FACULTY 4,371
EXISTING CAMPUS
CAMPUS GSF: 11.9M 2017

GSF BUILT SINCE 1997: 4.6M (38%)
CAMPUS GSF: 11.9M 2017

GSF BUILT SINCE 1997: 4.6M (38%)

SHORT-TERM GSF: 3.7M
CAMPUS GSF: 11.9M 2017

GSF BUILT SINCE 1997: 4.6M (38%)

LONG-TERM GSF: 7.0M
PLANNING FRAMEWORK
5 IMPROVING THE VT STUDENT LIFE EXPERIENCE
6 FOSTERING INCLUSIVE DIVERSE COMMUNITIES
7 ENHANCING LEARNING & RESEARCH ENVIRONMENTS
SAMPLE INITIATIVES
North Academic District
Point of Origin
WHERE ARE PEOPLE COMING FROM?

A large concentration of students walk or take transit from the area north of campus

9,400 students from the north

2,000 students from the downtown area

3,000 students from the west
North Academic Core Scheduled Activity – Fall 2015
12:00 pm Thursdays (peak)

6,893 students in the North Academic precinct at noon on Thursdays.
SHORT TERM STRATEGY – THE BURRUSS CAVE
Burruss Tunnel
Social Space Opportunity

Burruss Hall Ground Floor Plan

Section at Burruss Tunnel and Entry Lobby
Burruss Tunnel

Before
The Tech Cave

AFTER
Existing Program
North Academic Central Campus Common

Burruss
Burchard
Cowgill
Proposed Program
North Academic Central Campus Common

- Burruss
- Burchard
- Cowgill
Central Campus
Commons
Framework
Existing Conditions

Burchard Plaza
Existing Conditions

TURNER WALK
Existing Conditions

Burchard Student Spaces
Existing Conditions

Cowgill Interior
Precedents
North Academic Central Campus Commons
Existing Conditions

Cowgill Hall
Precedents
North Academic Central Campus Commons
Precedents
North Academic Central Campus Commons
Existing Conditions

COWGILL LAWN
UPPER QUAD AND NORTHEAST DISTRICT
Upper Quad and Northeast District

NORTHEAST DISTRICT

UPPER QUAD
Upper Quad and Northeast District
Creativity and Innovation District
Creativity + Innovation District
Character
CID Vibrancy: Academic Studios + Population
Public Media Commons

Architects: dlandstudio
Location: St. Louis, Mo
Project Year: 2014
Plaza del Torico

Architects: b720 Fermín Vázquez Arquitectos
Location: Location Teruel, Spain
Area: 3730.0 sqm
Budget: 6,500,000 €
Project Year: 2007

http://www.archdaily.com/43040/plaza-del-torico-b720
Creativity & Innovation District
Alumni Mall
Existing
Existing Conditions

LAWN AT DONALDSON-BROWN
STUDENT LIFE DISTRICT
President's Quad

EXISTING CONDITIONS

General Building Items*
• Inaccessible entrances
• Inaccessible corridors
• No AC
• Outdated MEP/FP
• Outdated bathrooms
• Acoustics between units
• Lack of study and living space

General Landscape Items:
• Inaccessible site paths
• Lack of planting strategy
• Expansive scale
• Poorly located rec

*From EYP Facility Condition Assessment and Feasibility Study 2005
Presidents’ Quad
Holistic Strategies:

- At ground floors, consolidate common space adjacent to major pathways and outdoor common space
- Create gathering spots at critical pathway nodes
- Update or add elevators to provide access at major entrances and across all floor levels
- Reconfigure all bathrooms to contemporary standards for function, finish, and privacy
- Create accessible entrances where possible
- Reconfigure and recharacterize landscape to support unique environments and universal design
- Provide AC and update all MEP/FP systems

-22 beds in Vawter
-20 beds in Barringer
-6 beds in Miles
-10 beds in Newman
No loss in Johnson
-58 beds
Create "Presidents' Patio" to include new seat steps and accessible entry into Barringer
Regrade quad to provide a 5% accessible route and garden
Expand common space to engage Quad
New elevators to provide accessibility across floor levels
Reconfigure common space to correct dead end corridor

-22 beds in Vawter
-20 beds in Barringer
-6 beds in Miles
-10 beds in Newman
No loss in Johnson
-58 beds
HEALTH SCIENCE + TECHNOLOGY AND LIFE SCIENCE DISTRICTS
Health Science + Technology and Life Science Districts

LIFE SCIENCES AGRICULTURE & RESILIENCY DISTRICT

HEALTH SCIENCES DISTRICT
Health Science + Technology and Life Science Districts
Health & Life Science District

Global System Science

Student Commons
Precedent
GSS Building

Group Study Spaces

Informal Study and Dining Space

Food Services and Coffee
21st CENTURY LIVING LEARNING &
GATEWAY DISTRICTS
21st Century Living / Learning Community
Campus Commons: 21st C LLC

Existing Conditions
Campus Commons: 21st C LLC
Proposed Vision
INTELLIGENT INFRASTRUCTURE CORRIDOR
Direct connection to the Smart Village and large off-campus student population is made via Perry St. with opportunities to expand transit service. The Smart Village responds directly to the human-centered objectives of the II&HCC DA. Existing labs and facilities are bolstered by an updated infrastructure and mobility network and new parcels are identified for activities and programs affiliated with the II&HCC.
Intelligent Infrastructure Corridor

INTELLIGENT INFRASTRUCTURE FOR HUMAN-CENTERED COMMUNITIES
Intelligent Infrastructure Corridor
Intelligent Infrastructure Corridor

Existing Conditions
Intelligent Infrastructure Corridor
Proposed Conditions
Infinite Loop + II&HCC
Infinite Loop + II&HCC

A

B

C

D

E

Pedestrian

Bike Auto-Pods

Promenade

Bio-swale

Multi-use Path

Planting

Sidewalk

Mobility Lane

Vehicular

Varies Street

Mobility Lane

Sidewalk

Street

Mobility Lane

Sidewalk

Landscape

Shared Path

Landscape
Autonomous Pods

Precedent

Self-driving pod car in Milton Keynes, U.K.
Glow-In-The-Dark Bicycle Path

Architects: TPA Instytut Badań Technicznych Sp. z o.o
Location: Lidzbark Warmiński, Poland

Intelligent Infrastructure + Human Centered Communities – Related Components

Drillfield Paths Research
Pathway quietly illuminates when occupied by one person.

Drillfield Paths Research
II&HCC – Related Components

Lighting becomes more active when more people are on the paths.

Drillfield Paths Research
OTHER STUDIES....
Additional Master Plan Areas of Focus

- Student Life Initiatives
- Space Planning
- Land Use
- Mobility & Accessibility
- Infrastructure
- Academic Health Center at Roanoke
- ARECs
- National Capital Region
For Additional info and to send comments...

https://www.facilities.vt.edu/planning-construction/campus-master-plan.html

Masterplan-g@vt.edu
Thank You!
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

The Inn – Solitude
10:00 – 11:30

Sunday – November 5, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Welcome</td>
<td>Mr. Mike Quillen, Chair</td>
</tr>
<tr>
<td>2. Consent Agenda</td>
<td>Mr. Mike Quillen, Chair</td>
</tr>
<tr>
<td></td>
<td>a. Approval of the Minutes from the September 11, 2017 meeting</td>
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<tr>
<td></td>
<td>* b. Resolution to Create an Easement and/or Amend the Virginia Tech / Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch</td>
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<td></td>
<td>c. Sustainability Annual Report</td>
</tr>
<tr>
<td></td>
<td>d. Acceptance of Capital Project Status Report</td>
</tr>
<tr>
<td>3. Presentation on Campus Security</td>
<td>Chief Kevin Foust</td>
</tr>
<tr>
<td>4. Presentation on Campus Safety &amp; Preparedness</td>
<td>Mr. Mike Mulhare</td>
</tr>
<tr>
<td>* 5. Amended Resolution Supporting the Amendment of Chapter 638 Virginia Acts of Assembly Relating to the New River Valley Emergency Communications Authority</td>
<td>Dr. Sherwood Wilson</td>
</tr>
<tr>
<td>6. Design Preview / Review for Advanced Design and Construction Facility</td>
<td>Mr. Jason Soileau</td>
</tr>
<tr>
<td>7. Design Review for Multi-Modal Transit Facility</td>
<td>Mr. Jason Soileau</td>
</tr>
<tr>
<td>8. Design Review for Virginia Tech Carilion Biomedical Research Expansion</td>
<td>Mr. Jason Soileau</td>
</tr>
<tr>
<td>9. March Agenda Discussion</td>
<td>Mr. Mike Quillen</td>
</tr>
</tbody>
</table>

* Requires full Board approval.
Open Session

1. Welcome

2. Consent Agenda: The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

   a. Approval of the Minutes for the September 11, 2017 meeting.

   b. Resolution to Create an Easement and/or Amend the Virginia Tech/Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch: The proposed easement would allow partial encroachment of the Lane Substation expansion into the stormwater easement area, and allow for the creation and maintenance of a stormwater channel/ditch near the Virginia Tech/Montgomery Regional Airport expansion.

   c. Sustainability Annual Report: The Committee will review for acceptance the annual sustainability report. Significant progress continues to be made in this area through student engagement in on-going programs, as well as in operational improvements throughout the institution.

   d. Acceptance of Capital Project Status Report: The Committee will review for acceptance the quarterly capital project status report.

3. Presentation on Campus Security: The Committee will receive a presentation regarding campus security from Virginia Tech Police Department Chief Kevin Foust. The presentation will provide an overview of the campus Police Department, some high level statistics regarding crime on campus, and information regarding interagency partnerships and community outreach efforts.

4. Presentation on Campus Safety and Preparedness: The Committee will receive a presentation regarding campus safety and preparedness from Mr. Michael Mulhare, Assistant Vice President for Emergency Management. Main areas of focus will include the university’s structure and plans related to safety and security, the university’s emergency notification system, and preparedness efforts such as trainings, exercises, and information dissemination.
5. Amendment to September 11, 2017 Resolution Supporting Amendment of Virginia Acts of Assembly 2010 Chapter 638: Following the Board of Visitors approval in September, Authority leadership determined that additional clarifications were required in the Resolution and proposed legislation amendment. The changes clarify that all participating agencies must approve the funding formula proposed by the Authority’s Board of Directors before such formula is implemented.

6. Design Preview/Review for Advanced Design and Construction Facility: This project will provide a support facility for the College of Architecture and Urban Studies as well as the College of Engineering. The facility will house assignable space to support initiatives such as the Solar Decathlon, FutureHaus research programming, and Destination Area activities. It is consistent with long-term master plan strategies and may revert to use as a storage space with further development of the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area. The 4,965 gross square foot facility will be sited off of Inventive Lane, to the southeast of the current Thomas M. Murray Structures Lab.

7. Design Review for Multi-Modal Transit Facility: This project, managed through the Town of Blacksburg, proposes new construction of a 13,716 gross square foot facility fronting existing Perry Street in the North Academic District. The project will include 17 covered bus slips in loop configurations to the east, west, and southwest, and will feature sustainable elements. The facility will centralize transit transfers and serve multiple modes of alternative transportation. It will provide amenities for alternative transportation users (including a bike repair hub) and is strategically located along the planned Infinite Loop.

8. Design Review for Virginia Tech Carilion Biomedical Research Expansion: At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are currently proceeding with the Preliminary Design phase for approximately 139,300 gross square feet of new construction. The project will include research and education spaces that bring together researchers and clinicians in areas of human and animal medical sciences with a focus on five thematic areas. The site is located at the Riverside Center Research Education and Medical Park in Roanoke.

9. March Agenda Discussion: The Committee will discuss potential topics for inclusion on the March meeting agenda.

*Requires full Board approval.
CONSENT AGENDA

The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

Consent Agenda

Mr. Mike Quillen, Chair

a. Approval of the Minutes from the September 11, 2017 Meeting

* b. Resolution to Create an Easement and/or Amend the Virginia Tech/Montgomery Regional Airport Authority Stormwater Easement to Acknowledge an Encroachment and Create a Stormwater Channel/Ditch

  c. Sustainability Annual Report

  d. Acceptance of Capital Project Status Report

* Requires full Board approval.
Committee Minutes
BUILDINGS AND GROUNDS COMMITTEE
The Inn at Virginia Tech – Solitude Room
9:30 a.m. - 11:00 a.m.
September 11, 2017

Joint Closed Session with Governance and Administration

Board Members Present: Mr. Mehul Sanghani, Mr. Mehmood Kazmi, Mr. Jeff Veatch, Mr. Mike Quillen, Mr. C.T. Hill, Mr. Robert Mills, Mr. Dennis Treacy (Rector)

VPI & SU Staff: Dr. Sherwood Wilson, Chief Kevin L. Foust, Ms. Kim O'Rourke, Mr. Whit Babcock, Ms. Tracy Vosburgh, Ms. Kay Heidbreder, Mr. Mike Mulhare, Dr. Patty Perillo, Deputy Chief Mac Babb, Mr. Mark Gess, Ms. Kayla Smith

1. Motion for Closed Session. Motioned to begin closed session.

2. Discussion of Matter of Public Safety. The committee met in closed session for a discussion led by Dr. Sherwood Wilson, Vice President for Operations, and Chief Kevin L. Foust, Chief of Police, Director of Security, on the Matter of Public Safety.

3. Motion to Reconvene in Open Session. Motioned to begin open session

Open Session

Board Members Present:
Mr. Mike Quillen, Mr. C.T. Hill, Mr. Robert Mills

VPI & SU Staff:
Ms. Jennifer Altman, Deputy Chief Mac Babb, Ms. Jeri Baker, Mr. Joe Crane, Mr. Brian Daniels, Chief Kevin Foust, Dr. Lance Franklin, Dr. Mike Friedlander, Mr. Tom Gabbard, Mr. Mark Gess, Mr. Rodd Hall, Ms. Elizabeth Hansen, Dr. Lee Hawthorne, Mr. Rick Hinson, Dr. Frances Keene, Dr. Chris Kiwus, Ms. Robin McCoy, Ms. Sarah McCoy, Mr. Grant Morris, Mr. Mike Mulhare, Dr. Ed Nelson, Mr. Mark Owczarski, President Tim Sands, Ms. Kayla Smith, Mr. Jason Soileau, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Mr. Steve Vantine, Mr. Luke Watson, Dr. Lisa Wilkes, Dr. Sherwood Wilson.

Tour Attendees:
Mr. Mike Dunn, Officer A. Gale, Mr. Mark Gess, Mr. C.T. Hill, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Letita Long, Mr. Duane Mann, Mr. Robert Mills, Mr. Charles Phlegar, Mr. Mike Quillen, Rev. Wayne Robinson, Ms. Kayla Smith, Mr. Jason Soileau, Officer J. Tarter, Mr. Jon Clark Teglas, Mr. Dennis Treacy, Dr. Sherwood Wilson.

1. Tour of the 460 Southgate Drive Interchange: The Committee toured the Route 460 Interchange construction project, as well as the Virginia Tech – Montgomery Airport Expansion.
Mr. Quillen requested that each Buildings and Grounds Committee member be provided a copy of a campus map that included building names, an excerpt from an overview of the university’s facilities that was provided to the full Board as part of the Knowledge Base materials, and a map that shows the approximate location of key facilities throughout the Commonwealth (see attachments a. – c.). These were distributed to and reviewed with each member as part of the Chair’s welcome to the open meeting.

2. **Consent Agenda:** The Committee approved or accepted the items listed on the Consent Agenda.

   a. **Approval of the Minutes for the June 5, 2017 meeting.** The Committee approved the minutes from the last meeting.

   b. **Resolution Amendment for Baseball Facilities Gas Line Easement:** The Committee approved a Resolution to revoke the authorization of a gas line extension along Duck Pond Drive and execute an easement to extend an Atmos gas line to serve the planned new Virginia Tech baseball stadium.

   c. **Resolution for Rector Field House Gas Line Easement:** The Committee approved a Resolution to execute an easement to extend Atmos’ gas line to serve the planned improvements to the Virginia Tech Rector Field House.

   d. **Resolution Updating the University’s Capital Construction Delivery Method Approval:** The Committee approved a Resolution to approve the Capital Construction Delivery Method Approval Process.

   e. **Design Preview for Chiller Plant Phase II:** The Committee approved the design preview for the capital project at the Chiller Plant.

   f. **Acceptance of Capital Project Status Report.** The Committee accepted the Capital Project Status Report.

3. **Report on Parking and Alternative Transportation Initiatives:** The Committee received an update on Parking and Transportation Operations. Increasing focus is placed on Alternative Transportation as the campus population grows and as the regional and global nature of constituents’ work (research, internships, other collaborations) requires more frequent connections to other parts of the state and mid-Atlantic. Very successful examples are the expansion of Blacksburg Transit bus services and the new Campus-2-Campus bus that runs between Blacksburg and Arlington, essentially providing a mobile office with amenities such as WiFi and electrical outlets for the 4-hour journey.

   * 4. **Resolution Supporting the Amendment of Chapter 638 Virginia Acts of Assembly Relating to the New River Valley Emergency Communications Authority:** The Committee reviewed and approved a resolution supporting amendment of the act to permit implementation of a funding formula and the allocation of annual contributions among the Authority members based on use of authority services.

   * 5. **Resolution on the Comprehensive Agreement for the Health Sciences & Technology and Comparative Oncology Research Center:** The Committee received and approved a resolution to approve the Comprehensive Agreement to construct the Virginia Tech Carilion
Health Sciences & Technology and Comparative Oncology Research Center as provided by the PPEA.

6. **Design Preview for Health Sciences & Technology and Comparative Oncology Research Center:** The Committee previewed schematic designs from the PPEA proposal.

7. **Design Preview for Athletics Facilities Improvements – Tennis Facility:** The Committee previewed the design underway for the addition to the existing Burrows-Burleson Tennis Center.

8. **Design preview for Holden Hall Renovation:** The Committee previewed schematic designs underway for renovation of an existing wing and replacement of two dilapidated single story wings with new construction.

9. **Update on University Club:** The Committee received an update on the University Club building. Discussions continue between the Virginia Tech Foundation, Inc. and the university to appropriately compensate the University Club, while also providing Virginia Tech with a vacant lot in the location of the current University Club Building. This will allow development of the Creativity and Innovation District Living-Learning Community currently envisioned by the Campus Master Plan.

10. **November Agenda Items:** The Committee discussed potential items for the November meeting. Tentatively, the Committee anticipates receiving an update on Safety and Security initiatives and the Annual Sustainability Report.

**Joint Open Session with Finance and Resource Management**

**Board Members Present:**
Ms. Greta Harris, Mr. C.T. Hill, Ms. Anna James, Ms. Tish Long, Mr. Robert Mills, Ms. Debbie Petrine, Mr. Mike Quillen, Dr. Hans Robinson-faculty representative, Mr. Wayne Robinson, Mr. Dennis Treacy, Mr. Horacio Valeiras

**VPI & SU Staff:**
Mr. Mac Babb, Mr. Bob Broyden, Mr. Jim Buckwalter, Ms. D’Elia Chandler, Mr. John Cusimano, Mr. Brian Daniels, Dr. John Dooley, Mr. Kevin Foust, Dr. Lance Franklin, Dr. Mike Friedlander, Mr. Mark Guess, Dr. Lee Hawthorne, Mr. Jim Hillman, Mr. Tim Hodge, Dr. Chris Kiwus, Dr. Theresa Mayer, Ms. Robin McCoy, Ms. Sarah McCoy, Dr. Steven McNight, Ms. Nancy Meacham, Mr. Ken Miller, Mr. Grant Morris, Mr. Mike Mulhare, Mr. Mark Owczarski, Mr. Charlie Phlegar, Dr. Menah Pratt-Clark, Dr. Scot Ransbottom, Ms. Lisa Royal, Mr. Charlie Ruble, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr., Ms. Kayla Smith, Dr. Ken Smith, Mr. Jason Soileau, Mr. John Talerico, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Dr. Sherwood Wilson, Mr. Chris Wise

1. **Consent Agenda:** The Committee considered the following item listed on the Consent Agenda.
   1. **Update on the 2018-2024 Capital Outlay Plan:** At its April 2017 meeting, the Committees approved the university’s list of potential projects for inclusion in the 2018-2024 Capital Outlay Plan and authorized the university to develop and submit a final plan to the state in accordance with future guidance from the state and based on the projects in the approved list. The university proceeded accordingly and met the state’s
July 2017 deadline for submission of the plan. Based on the instructions received from the state and consistent with the Board approved Six-Year Capital Outlay Plan, the university submitted a list of projects requesting some portion of General Fund resources in their budget. This report provided the list of projects ranked in priority order submitted to the state, the state capital budget review and approval process, and the list of Nongeneral Fund Projects included in the Six-Year Capital Outlay Plan for 2018-2024.

The Committees approved the Consent Agenda, which included a report on the Update of the 2018-2024 Capital Outlay Plan.

* 2. Approval of Resolution for Capital Lease for Applied Projects Building in the Corporate Research Center:

The Committees reviewed a resolution for the university to enter into a capital lease with the Virginia Tech Foundation for the Applied Projects Building in the Corporate Research Center. The planned building is approximately 45,000 gross square feet of office, laboratory, and applied projects research space to support research and experiential learning programs in the areas of economic, homeland, and national security for a total project cost of $8.4 million.

The Committees recommended the Resolution for a Capital Lease for the Applied Projects Building in the Corporate Research Center to the full Board for approval.

* 3. Approval of Resolution for Capital Lease for Virginia Tech Transportation Institute Intern Park Facility:

The Committees reviewed a resolution for the university to enter into a capital lease with Virginia Tech Foundation for the Virginia Tech Transportation Institute (VTTI) Intern Park Facility. The project is an element of the larger $78.4 million Intelligent Infrastructure and Human-Centered Communities initiative approved by the Board at the April, 2017 meeting. The Intern Park is designed as an interdisciplinary advanced-learning facility and includes flexible studio space and multiple garage and shop facilities equipped with state-of-the-art tooling with a total project cost of $2.5 million.

The Committees recommended the Resolution for a Capital Lease for the Virginia Tech Transportation Institute Intern Park Facility to the full Board for approval.

* 4. Approval of Resolution for Dietrick Renovation and Plaza Improvements:

The Committees reviewed a resolution for Dietrick Hall first floor renovation and plaza improvements. The project includes inserting a modern food service venue and adding 200 indoor seats to the building and making improvements to the outdoor plaza to create additional outdoor seating for dining customers, serve as informal gathering spaces for the campus community, and support special event activities. The total project costs for the building renovations and plaza improvements is $7 million.

The Committees recommended the Resolution for the Dietrick Renovation and Plaza Improvements to the full Board for approval.

There being no further business, the meeting adjourned at 11:30 a.m.

*Requires full Board approval.
UNIVERSITY NUMBERS AND ADDRESSES

All areas codes 540
General Switchboard .................................................. 231-8000

Admissions
Undergraduate 925 Prices Fork Road .............................. 231-6267
Graduate Graduate Life Center at Donaldson Brown ........... 231-6691
www.gradt.vt.edu

Selected Offices and Facilities
Alumni Association Holtzman Alumni Center ..................... 231-6285
Bookstore (University) .................................................... 231-5991
Continuing and Professional Education 702 University City Blvd ........... 231-9982
Cooperative Extension 101 Hutchison Hall ...................... 231-5299
Human Resources Norrend Center ................................... 231-9331
Inn at Virginia Tech ....................................................... 231-8000
International Students Harper Hall ................................. 231-6527
Outreach and International Affairs University Gateway Center ........ 231-3205

Paging Services 455 Tech Center Dr. ............................... 231-3200
Research 301 Burruss Hall .............................................. 231-6077
Shelton Conference Center ............................................. 231-8000
Student Affairs 112 Burruss Hall ..................................... 231-6272
University Relations 314 Burruss Hall ............................. 231-5396
Visitor Information Center ............................................. 231-3548

Academic Colleges
Agriculture and Life Sciences 1060 Linton-Reaves Hall ........ 231-6503
Architecture and Urban Studies 202 Cowgill Hall ............... 231-6416
Engineering 3046 Torgersen Hall .................................... 231-6641
Liberal Arts and Human Sciences 260 Wallace Hall ............ 231-6779
Natural Resources and Environment 138 Cassell Coliseum ... 231-5462
Pamplin Business 1046 Pamplin Hall .............................. 231-6602
Science North End Center ............................................ 231-5422
Veterinary Medicine Phase II Bldg. ................................. 231-4699

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Excerpt from
Overview of the University's Physical Assets

Virginia Tech is committed to providing an adequate infrastructure of facilities, grounds, transportation systems, and equipment to support the institution's learning, discovery, and engagement missions. Extensive land holdings, effectively maintained and growing facilities, and a modern inventory of equipment and systems provide a sound foundation for current programs and future initiatives.

The Campus

Virginia Tech's campus consists of 6,351 acres and 440 buildings located in Montgomery County. These buildings include 338 Educational and General buildings, containing approximately 6.6 million gross square feet (GSF), and 96 Auxiliary buildings, containing approximately 5.2 million GSF. The campus proper is located in the Town of Blacksburg and consists of 2,560 acres. Associated with the main Blacksburg campus (not including the Virginia Tech Foundation, Inc. [VTF] owned buildings) are 309 buildings containing over 10.1 million GSF. The university provides approximately 329 square feet (sf) per student, for each of its 31,090 students at the Blacksburg campus.

The university has extended campus and outreach sites throughout the Commonwealth of Virginia and the world.

- Academic-focused centers include: the Virginia Tech Roanoke Center in Roanoke; the Southwest Virginia Higher Education Center in Abingdon; Reynolds Homestead in Critz; the Virginia Tech National Capital Region, which includes the Northern Virginia Center in Falls Church, the Washington-Alexandria Architecture Center in Alexandria, and the Language and Culture Institute in Fairfax; the Virginia Tech Richmond Center in Richmond; the Hampton Roads Educational Center in Virginia Beach; the Technology Research and Innovation Center in Hampton Roads; the Caribbean Center for Education and Research in Punta Cana, Dominican Republic; and Virginia Tech's Steger Center for International Scholarship in Riva San Vitale, Switzerland.

- The Virginia Agricultural Research and Extension Centers (ARECs) serve as key field research sites, but also as field laboratories for undergraduate and graduate students and field day program sites for producers, school groups, and other citizens. The 11 ARECs total nearly 4,556 acres (506 acres of adjacent leased land) and 221 buildings with approximately 563,000 GSF of space. These centers comprise a portion of Virginia’s Agricultural Experiment Station research system.

- Virginia Cooperative Extension, a partnership with Virginia State University, provides research-based information to the commonwealth through 107 county and city extension offices and six 4-H education centers.

- The university also has several unique centers for research and special activities such as medical education. The Virginia Tech Carilion School of Medicine and Research Institute (VTCRI), constructed in Roanoke under the provisions of the Public Private Education Facilities and Infrastructure Act (PPEA), consists of 152,000 square feet. The Technology Research and Innovation Center (TRIC), also constructed under the provisions of PPEA,
in Hampton Roads is 60,000 square feet. The National Capital Region Research Facility (Arlington), a VTF-owned project, provides an additional 150,000 square feet of office and research space. The Virginia Tech India Institute for Critical Technology and Applied Science (ICTAS) Innovation Center, opened in spring 2014 as the first laboratory of a new research center on a 30-acre research park near Chennai, India; expanding the university’s global presence in critical research fields such as renewable energies.

Generally, the leasing of off-campus space by the university is an interim solution to space challenges. Off-campus leases are intended to continue only if appropriate university-owned space does not become available, except for those buildings owned by the VTF for long-term use by the university. Overall, the university leases approximately 2,200 acres of land and roughly 2 million square feet of space (offices, labs, classrooms, residential units, and warehouses) throughout various areas in Virginia, other states, and internationally in Senegal and Switzerland. There are 80 leased buildings containing approximately 1.5 million GSF that support the main Blacksburg campus.
In addition to the Main Campus in Blacksburg, Virginia Tech has:

- 11 Agricultural Research & Extension Centers,
- 6 4-H Educational Centers,
- 5 Commonwealth Campus Higher Educational Centers, and
- several Research Institutes and other special facilities across the state, including a strong and growing presence in the National Capital Region.
WHEREAS, the Board of Visitors of the Virginia Polytechnic Institute and State University ("Virginia Tech") approved a resolution on November 18, 2013 authorizing the transfer of approximately 26.361 acres in fee simple, 17.920 acres in a permanent easement for the Runway Protection Zone, and 3.549 acres for a stormwater easement to the Virginia Tech/Montgomery Regional Airport Authority (the “Airport Authority”) in order to allow for the expansion of the Virginia Tech/Montgomery Executive Airport; and

WHEREAS, the Board of Visitors approved a resolution on November 10, 2014 to clarify and affirm Article VI Reversion Clause as stated in the Agreement For Purchase And Sale of Real Estate dated November 2013; and

WHEREAS, Virginia Tech by Deed of Easement dated March 6, 2015 and recorded in the Clerk’s Office of the Circuit Court of Montgomery County, Virginia, at Instrument Number 2015001468 granted a stormwater easement on a 3.549 acres area as more particularly identified on a survey recorded in the said Clerk’s Office at Instrument Number 2015001466 and as shown on the attached drawing entitled “Stormwater Easement Near Lane Substation;” and

WHEREAS, the March 6, 2015 Deed of Easement states in part that Virginia Tech may use the 3.549 acres stormwater easement area for any purpose not inconsistent with the rights granted in the easement, and that Virginia Tech may relocate for Virginia Tech’s convenience any of the Airport Authority’s facilities installed and used pursuant to the easement; and

WHEREAS, the Board of Visitors approved a resolution on April 28, 2015 for the Lane Substation expansion; and

WHEREAS, the Lane Substation expansion encroaches in part into the 3.549 acres stormwater easement area by approximately thirty feet (30’) in width and approximately one hundred eighty feet (180’) in length as more particularly shown on the attached drawing; and

WHEREAS, a portion of the Virginia Tech/Montgomery Executive Airport expansion project under construction by the Airport Authority requires an improved and more directed flow of stormwater in the area of the Lane Substation through the creation of a stormwater channel or ditch. The majority of which channel/ditch will be located within the 3.549 acres stormwater easement area. However, a portion of the stormwater channel/ditch will need to be located outside the 3.549 acres stormwater easement area and will connect to an existing Virginia Tech stormwater pipe on other Virginia Tech land. The portion of the stormwater channel/ditch located outside the 3.549 acres stormwater
easement area is estimated to be approximately ten feet (10’) in width by approximately one hundred thirty feet (130’) in length; and

WHEREAS, Virginia Tech and the Airport Authority desire to acknowledge and agree to the encroachment, in part, of the Lane Substation expansion into the stormwater easement area, and to improve and direct the stormwater flow into the 3.549 acres stormwater easement area through a stormwater channel/ditch;

NOW, THEREFORE, BE IT RESOLVED, that the Vice President for Operations, his successors and/or assigns, be authorized to execute an easement and/or an amendment to the existing March 6, 2015 Deed of Easement, as appropriate, to acknowledge and agree to the partial encroachment of the Lane Substation expansion into the stormwater easement area, and to allow for the creation and maintenance of a stormwater channel/ditch in accordance with applicable Virginia Tech procedures as permitted by the Higher Education Restructuring Act and Management Agreement with the Commonwealth of Virginia, and the Code of Virginia (1950), as amended.

RECOMMENDATION:

That the above resolution authorizing the Vice President for Operations, his successors and/or assigns, to create an easement or to amend the existing March 6, 2015 Deed of Easement, as appropriate, to acknowledge and agree to the partial encroachment of the Lane Substation expansion into the stormwater easement area, and to allow for the creation and maintenance of a stormwater channel/ditch be approved.

November 5, 2017
2016–17
Office of Sustainability
Annual Report
Virginia Tech does not discriminate against employees, students, or applicants on the basis of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, or veteran status; or otherwise discriminate against employees or applicants who inquire about, discuss, or disclose their compensation or the compensation of other employees, or applicants; or any other basis protected by law.

For inquiries regarding non-discrimination policies, contact the Office of Equity and Access at 540-231-2010 or Virginia Tech, North End Center, Suite 2300 (0318), 300 Turner St. NW, Blacksburg, VA 24061.
The Office of Sustainability was established in accordance with the Virginia Tech Climate Action Commitment (VTCAC) and is responsible for monitoring energy usage, Green House Gas (GHG) emissions, overseeing the implementation of the VTCAC&SP and the Sustainability Plan, coordinating programs for campus sustainability, and managing a campus-wide student internship program.

Virginia Tech is a member of the Association for the Advancement in Higher Education (AASHE) and we utilize their Sustainability, Tracking, Assessment and Rating System (STARS) as our management tool to measure our sustainability progress. In 2014 Virginia Tech received a STARS Gold Rating earning 71.02 points for its efforts to promote campus sustainability.

Virginia Tech is rated by the Association for Advancement of Sustainability in Higher Education (AASHE) and their Sustainability Tracking Assessment and Rating System (STARS). In 2014, Virginia Tech scored a Gold rating with 71.02 points for its efforts to promote campus sustainability.
Climate Action Commitment

Virginia Tech serves as a model community for a sustainable society. Sustainability is an integral part of the fabric of the university as it pursues enhanced economic stability and affordability, diversity and inclusion, environmental stewardship, expansion of knowledge, and education of future leaders.

1. **A Leader in Campus Sustainability**
2. Represent VTCAC&SP in **Strategic Plan**
3. **Reduce GHG emissions** to 80 percent below 1990 emission level by 2050
4. Improve **energy efficiency**, reduce energy waste, replace high-carbon fuels, etc.
5. **Maintain a sustainability office**
6. **LEED Silver Certification or higher** for all new construction and major renovations
7. **Electricity and heat efficiency**
8. **Minimize waste** and achieve a 50 percent recycle rate by 2020
9. a. Purchase or lease **Energy Star equipment** and maximize practicable recycled content paper
   b. Consider a product’s life cycle cost and impact when making purchasing decisions
10. **Engage students, faculty, and staff** to develop and implement innovative strategies for efficient and sustainable use of energy, water, and materials in all university-owned facilities
11. **Transportation energy efficiency** through parking, fleet, and alternative transportation policies and practices
12. Develop and implement innovative sustainability-related **academic programs** in instruction, research, and outreach
13. **Monitor energy use** and GHG emissions and change internal and external conditions, prepare an annual ‘report card’ showing progress towards targets
14. **Provide funding** to support sustainability programs
Our Partners

To achieve the university’s energy and sustainability goals, the Office of Sustainability works collaboratively with the following groups:

**Departments**
- Alternative Transportation
- Sustainability Institute – College of Natural Resources and Environment
- Dining Services
- YMCA at Virginia Tech
- Residential Leadership Community
- Housing and Residence Life
- Forest Resources and Environmental Conservation
- The Arboretum Committee
- Green Engineering Program – College of Engineering
- Virginia Tech Corps of Cadets
- Environmental Policy and Planning – College of Architecture and Urban Studies

**Student Groups**
- The Campus Kitchen at VT
- The Green Program - Study Abroad at VT
- Society of Renewable Resources
- Environmental Coalition
- Environmental Student Organization
- Residence Hall Federation
- Students for Sustainable Practice
- Student Government Association
- Sustainable Food Corps

**Community Groups**
- Sustainable Blacksburg
- Town of Blacksburg
Demand Side Management

Demand Side Management promotes energy efficiency by upgrading, retrofitting, and commissioning mechanical, lighting, and electrical systems in the buildings. The Office of Energy Management launched a Five Year Energy Action Plan to address the energy efficiency improvements with 50 of the most energy intensive buildings.

On-Going Projects

- Combustion testing of boilers and furnaces
- Electric sub-metering of chiller plants
- Fume hood energy reduction program
- Greenhouse lighting technology improvements
  - Thermal imaging of campus buildings
- Lighting bulb/fixture replacement
- Steam Trap Survey Program
- Thermal insulation on steam pipes, fittings, and equipment

Energy Efficient Design

To establish university standards which go beyond the applicable VA Energy Code, the Facilities Department has added a section to Virginia Tech’s “Design and Construction Standards” that speaks to “Guidelines for Energy Efficient Design.”

The guide applies to all new construction and new addition and renovation projects and will over time make significant advancements to energy reductions and savings.
The Office of Energy Management recently conducted a benchmarking analysis of campus buildings which identified significant energy inefficiencies. Following this study, a comprehensive Five-Year Energy Action Plan was developed in collaboration with the Office of Budget and Financial Planning. The plan guides the facilities operations to achieve significant reduction in energy cost. The program will concentrate on 10 “energy hog” buildings per phase with a goal of completing all in five years. An energy cost savings of approximately $4.5 million is estimated.

### Five Year Energy Action Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Tasks</th>
</tr>
</thead>
</table>
| 2016 | Convert the north chiller plant to variable primary flow  
Install chilled water meters for all buildings connected to the north chiller plant  
Purchase and install an energy management and continuous commissioning tool (EMVVSP)  
Implement campus electric demand management program |
| 2017 | Connect 10 energy intensive buildings to the EMCCSP  
Retro-Commission 10 energy intensive buildings  
Energy audits for 10 energy intensive buildings  
Install steam meters in campus buildings  
Implement energy retrofit projects based on previous year’s audit |
| 2018 | Connect 10 energy intensive buildings to the EMCCSP  
Retro-Commission 10 energy intensive buildings  
Energy audits for 10 energy intensive buildings  
Install steam meters in campus buildings  
Implement energy retrofit projects based on previous year’s audit |
| 2019 | Connect 10 energy intensive buildings to the EMCCSP  
Retro-Commission 10 energy intensive buildings  
Energy audits for 10 energy intensive buildings  
Install steam meters in campus buildings  
Implement energy retrofit projects based on previous year’s audit |
| 2020 | Connect 10 energy intensive buildings to the EMCCSP  
Retro-Commission 10 energy intensive buildings  
Energy audits for 10 energy intensive buildings  
Install steam meters in campus buildings  
Implement energy retrofit projects based on previous year’s audit |

### Key Highlights

- **50%** energy intensive buildings representing **35%** of the university structures these building account for **70%** of the main campus utility cost
Composting On Campus

Dining Services has been composting food waste since 2009 and, to date, the composting program has diverted over 5,452,560 pounds of waste from the landfill. In 2016-17, 416 tons of composted food waste was collected from our 11 dining facilities. The university consolidated the waste at a central storage facility on campus and delivered the waste to a regional composting facility, Royal Oak Farm, a family operated facility located in Evington, Virginia. The university negotiated a contract with Royal Oak Farm in 2017, whereby a food waste storage container will be provided on campus, and full containers of food waste will be hauled to their location. With this arrangement, annual composted food waste is expected to increase from 550 to 600 tons.
Single Stream Recycling

Single Stream Recycling began in the summer of 2015 for the Blacksburg campus. Standard Single Stream Signage (left) is being used on all single stream advertising on campus.

In addition to bottles and cans, paper products and light cardboard can now be placed into the Big Belly Solar Trash Compactors for recycling. Furthermore, new Large Outdoor Recycling Containers (right) have been placed outside residence halls and 10 new sets of Indoor Single Stream Recycling and Waste stations were placed in McBryde Hall. The McBryde Indoor Waste Stations consisted of 10 pairs of metal containers placed inside the main entrances on the 1st, 2nd and 3rd floors. The Single Stream Recycling Container is painted blue and contains the standard single stream signage decal on the front face. The Trash Container is painted black and contains the landfill decal on the front face. Magnets hold the two containers together and both are anchored to the floor to meet fire code.

These waste station guidelines are now officially in the University Design Standards, and remain an example of the highest standard across campus. University design standards state: “Indoor waste stations will consist of an appropriate number of pairs of non-combustible collection containers placed side-by-side with one designated and labeled for “single stream recycling” and the other designated and labeled for “trash”. Ideally, containers will be recessed into the interior walls of the building so as to not protrude into the hallway space. If that is not possible, the containers should be placed on the floor and secured to the building structure to meet fire code. A waste management collection station should be placed in common areas that generates a large volume of recyclable material such as mail rooms, break rooms, and meeting rooms.”

Recycling Rate Percentage

![Recycling Rate Percentage Graph]
Kentland Farm has produced over 180,000 pounds of produce.

Sustainable Dining

The Farms and Fields Project:
The Farms and Fields Project in Owens Food Court offers a seasonal menu highlighting local, sustainable, and organic foods. From farm-fresh butternut squash lasagna to local sausages and bagels, Farms and Fields gives students a unique look into what it means to eat with the seasons.

Dining Services Farm at Kentland Farm:
Beginning as a quarter acre herb plot in 2009, the Dining Services Farm at Kentland Farm now occupies over six acres. Under the leadership of the Sustainable Food Systems Production Director (a position jointly funded by Dining Services and the Department of Horticulture) the farm grows fruits, vegetables, and herbs specifically for Virginia Tech Dining Services. To date, the Dining Services Farm has produced over 180,000 pounds of produce, and crop production includes everything from basil and sweet corn to garlic scapes and butternut squash.
Reusable To-Go Program:
The Reusable To-Go (R2G) program represents a collaboration between the Office of Sustainability, Student Government Association (SGA), and Housing and Residence Life (HRL). In academic year 2016-17, nearly 32,000 meals were served in R2G containers, thus helping reduce waste and cut costs associated with compostable to-go containers. For the fall of 2017 (in collaboration with SGA and HRL) Dining Services also secured over $20,000 in funding to distribute 9,500 Reusable To-Go containers to all on-campus residents.

Waste Reduction:
Dining Services works with the Campus Kitchen at Virginia Tech to divert unused food to those in need within the New River Valley. Since beginning that relationship in 2015 the program has diverted over 20,000 pounds of food.
Alternative Transportation

**Bus, Bike, Walk, and Carshare**

Alternative Transportation promotes and encourages the use of alternative modes of transportation (e.g., bicycling, walking, vanpooling, carpooling, riding transit) to get to, from, and around campus.

The **Hokie Bike Hub** serves as a bicycle maintenance and commuter education center. Cyclists have access to tools and resources for self-service bike repair. Cyclists can also attend bike-themed workshops and learn how to maintain and repair bikes. The Bike Hub has become the home of bicycling on campus and serves as a social space for cyclists to interact with and learn from one another.

Employees of Virginia Tech can participate in an official university **Vanpool** Program. Benefits of the program include shared costs, reserved parking space, reduced cost fuel at **Fleet Services**, and regular van maintenance.

**Zimride** and **Zipcar** are two alternative transportation options for both students and employees to share rides or rent vehicles hourly, encouraging everyone to cut down on fuel use.
Green Building: LEED Certifications
(Leadership in Energy and Environmental Design)

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Certification</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henderson Hall Renovation and Theatre 101 Addition</td>
<td>Gold</td>
<td>2/1/10</td>
</tr>
<tr>
<td>Football Locker Room Addition</td>
<td>Silver</td>
<td>10/1/11</td>
</tr>
<tr>
<td>ICTAS II (Institute for Critical Technology and Applied Science)</td>
<td>Gold</td>
<td>11/1/11</td>
</tr>
<tr>
<td>Visitors and Undergraduate Admissions Center</td>
<td>Certified</td>
<td>8/1/12</td>
</tr>
<tr>
<td>Academic and Student Affairs Building (Lavery Hall)</td>
<td>Silver</td>
<td>4/1/13</td>
</tr>
<tr>
<td>Vet Med Instruction Addition</td>
<td>Silver</td>
<td>6/1/13</td>
</tr>
<tr>
<td>Ambler Johnston Hall</td>
<td>Gold</td>
<td>11/1/13</td>
</tr>
<tr>
<td>Chiller Plant, Phase I (Southwest Chiller Plant)</td>
<td>Silver</td>
<td>11/1/13</td>
</tr>
<tr>
<td>Center for the Arts (Moss Arts Center)</td>
<td>Gold</td>
<td>5/1/14</td>
</tr>
<tr>
<td>Human and Agricultural Biosciences Building I</td>
<td>Gold</td>
<td>4/17/15</td>
</tr>
<tr>
<td>Indoor Athletic Training Facility</td>
<td>Silver</td>
<td>10/5/15</td>
</tr>
<tr>
<td>Signature Engineering Building (Goodwin Hall)</td>
<td>Gold</td>
<td>10/28/15</td>
</tr>
<tr>
<td>Renovate Davidson Hall</td>
<td>Certified</td>
<td>3/11/16</td>
</tr>
<tr>
<td>Upper Quad Residential Facilities (Pearson Hall)</td>
<td>Silver</td>
<td>12/16/16</td>
</tr>
</tbody>
</table>

Total GSF = 1,173,072

Virginia Tech also has a number of future LEED Certified buildings under construction and in design.
Sustainability Week

Sustainability Week is a partnership between Virginia Tech, the Town of Blacksburg, and Sustainable Blacksburg that highlights sustainability efforts in the town and on campus. More than twenty events were scheduled the week of September 18-25, 2016.

Some of the highlights include:

“Caught Green Handed” – Volunteers traveled throughout the community catching people in the act of making more sustainable everyday choices such as biking to work, using a reusable coffee mug, or recycling.

Active Commute Celebration – This event is hosted by the Office of Alternative Transportation and highlights information about Blacksburg Transit, the Virginia Tech Office of Sustainability, the Blacksburg Office of Sustainability, and many others.

“20x20 Night” – Eight guest speakers presented in rapid fire format, 20 slides and 20 seconds per slide, on their sustainability topic of expertise. Featured topics included: The Creative ReUse Center, Healthy Streams – Vibrant Community, What Color Is Water?, Stinkbugs, Green Burial, and more!

Community Garden and Solar Homes Tour – The Hale YMCA Community Gardens hosts 70 families and uses sustainable, organic gardening practices. Participants toured the gardens and solar greenhouse, tried locally grown food, and also toured a nearby solar home.

10th Anniversary Tree Planting – 2016 marked the 10th anniversary of the green partnership between the Town of Blacksburg, Virginia Tech, and Sustainable Blacksburg. Virginia Tech President Tim Sands, Blacksburg Mayor Ron Rordam, and Sustainable Blacksburg President April DeMotts provided remarks and participated in the planting of a White Oak tree on Henderson Lawn, an important community gathering space in the heart of downtown Blacksburg and on the edge of the Virginia Tech campus.

In April 2017, Virginia Tech, the Town of Blacksburg, and Sustainable Blacksburg won a Silver Governor’s Environmental Excellence Award in the Sustainability category for their role in the planning and execution of Sustainability Week for the past 10 years. Representatives from all three entities accepted the award at the 28th annual Environment Virginia Symposium in Lexington, Virginia.
Earth Week

With the mission to “build a more just and sustainable community through education, action, and appreciation for our world,” Virginia Tech’s annual Earth Week events are led by The Environmental Coalition at Virginia Tech, with support from nearly a dozen other groups, including:

- Virginia Tech Office of Sustainability
- Virginia Tech Students for Sustainable Practice
- Virginia Tech Environmental Student Organization
- Sustainable Food Corps
- Sustainable Dining at Virginia Tech
- Virginia Tech Office of Alternative Transportation
- YMCA at Virginia Tech
- Veg Club of Virginia Tech
- Blacksburg Farmers Market

Each day of Earth Week is themed around an important sustainability topic, such as clean energy, waste and recycling, local food, social justice, and community. The particular events change each year, but the basic mission to take action for and celebrate a sustainable campus and beyond is carried through year to year.

2016-17 Office of Sustainability events include:

- EKOCENTER with Coca-Cola
- Pop-up Farmers Market with Blacksburg Farmers Market
- Tree Planting at Hillcrest Lawn
- Spring Game Green Tailgate
Game Day Green Tailgate

The “Game Day Green Team” promotes tailgate recycling during home football games by passing out blue recycling bags to tailgaters in the six highest impact parking lots surrounding Lane Stadium, including the Coliseum, Stadium, West Stadium, Track and Field, Chicken Hill, and Litton-Reaves parking lots. The Green Team educates tailgaters on what can and can’t be recycled, and how to green their game day experience. During the 2016 football season, nearly 10,000 pounds of recycling was collected!

Ways to green your gameday:

1. Carpool to the game
2. Use propane to grill
3. Bring reusable plates/cups/utensils/grocery bags
4. Recycle bottles, cups, cans, cardboard in bags provided by volunteers!
5. Buy in bulk - not single serving snacks (reduces packaging waste)
6. Buy local from the Blacksburg Farmer’s Market
Green Request for Proposals (RFP) Program

At a Glance

The Green Request for Proposals Program provides university funds to student-generated sustainability projects. This program solicits proposals from recognized student organizations that promote sustainability on campus. Proposals that are funded by the university support the Virginia Tech Climate Action Commitment and produce realizable savings.

Since 2010, 53 student proposals have been approved and awarded more than $525,000. The following projects were funded in 2015-16 and installed during 2016-17:

- Additional LED street lamp upgrades
- Additional OZZI reusable to-go machines and Hokie Passport readers
- Indoor waste stations for McBryde Hall
- Shut-the-Sash fume hood stickers
- Bicycle parking hubs
- Rainwater catchment system for Urban Horticulture Center
- Water bottle refilling station in Smyth Hall
- Native trees for Sustainability Week
- Bicycle fix-it stations
- Ytoss signage

The following projects were funded in 2016-17 and will be installed during the 2017-18 academic year:

- LED Lights in the Burruss Hall Tunnel - $4,500
- Stroubles Creek Riparian Restoration Buffer Project - $6,223
- ICTAS II Automatic Fume Hood - $3,500
- OZZI Reusable container expansion - $4,880
- LED Lighting in Squires Scene Construction Shop - $7,160
- Solar Charging Table - $13,500
- Water Bottle Refill Stations in Pamplin and Major Williams Hall - $5,000
- Energy Saving Light Switch Stickers - $300
- Bike Racks for Residence Hall Areas - $16,500
- Bike Shelter for Oak Lane Community - $7,000
Ytoss is the YMCA at Virginia Tech’s largest sustainability initiative. At the end of each academic year, collection pods are placed strategically around campus to collect gently used household items from residence hall, academic buildings, and the surrounding community. Then, at the start of the following academic year, items are re-sold during move-in week at Cassell Coliseum.

During the spring 2017 collection, 6.15 tons of material was diverted from landfill. The Green RFP program provided support through signage and marketing materials to ensure the collection was a success.
Energy and Sustainability Committee

Committee Purpose

The Energy and Sustainability Committee is part of the university governance structure. The committee reports to the Commission University Support which reports to University Council.

In 2016, the Energy and Sustainability Committee set forth to change their committee charge to best reflect their work surrounding sustainability. The new charge reads: “To review and provide advice to the University Administration on broad policy issues relating the university’s pursuit of environmental quality through action, education, and engagement to address current needs without compromising the capacity and needs of future generations.”

The Committee presented a Sustainability Overview to the University Council in May 2017. Also briefed the University Council in May 2017 to inform the university policy-makers of the exciting sustainability work that is taking place at Virginia Tech.
Internship Program

Intern Events

- Turn Down for Watt
- Thrift Swap
- Hallowgreen
- Did You Hear The Buzz?
- Pop-up Farmers Market
- EKOCENTER

Virginia Tech
Office of Sustainability
The Green Graduates of Virginia Tech program asks graduating students to take a personal sustainability pledge that encourages them to think about the environmental impact of their jobs, travel, and other adventures after leaving Virginia Tech. In 2016-17, Virginia Tech had over 750 Green Graduates.

Frequently Asked Questions

Do other schools have a graduation pledge? Yes. Virginia Tech is part of the Graduation Pledge Alliance. There are more than 100 active pledge schools and 125,000 college graduates have taken the pledge.

How do I participate? To participate send a quick blurb of how you pledge to support a sustainable world and a photo of yourself (think “Humans of New York” project or just your standard selfie) to the Facebook page.

Do I need to be graduating to get the cord? Yes, we will only give cords to students who are set to graduate in the upcoming graduation ceremony.

Do you hand out cords for December graduation? Yes.

Do you have to be an undergraduate student to participate (rather than a Masters, PhD, etc.)? Not at all. Graduate students are also invited to participate.

What’s the cost? The cord is free of charge, and only requires that you send your pledge and photo to commit to living a sustainable post-graduation life.

To view more, visit our Facebook page: Green Graduates of Virginia Tech.

graduationpledge.org
Since Virginia Tech was first certified in 2008 under the Tree Campus USA program, over 625 trees have been planted across campus. Plantings primarily take place during Sustainability Week in the fall semester and during Earth Week in the spring semester. Virginia Tech was one of the founding member schools of Tree Campus USA but as of spring 2017 over 300 universities were certified through this program.
STARS: Sustainability Tracking, Assessment and Rating System

Gold Rating since October 15, 2014

A Letter From President Sands to the Association for the Advancement of Sustainability in Higher Education (AASHE)

Virginia Tech is proud to be a charter participant in AASHE’s STARS. We are committed to maintaining our leadership role in campus sustainability. It is my pleasure to endorse and affirm that Virginia Tech’s STARS submission accurately reflects the sustainability initiatives and progress to date on our campus.

We actively use STARS as the primary tool for benchmarking our progress towards a more sustainable campus. Our commitment to sustainability was initiated by students in 2007. In 2009, our Board of Visitors unanimously approved the Virginia Tech Climate Action Commitment Resolution, which was accompanied by a Sustainability Plan specific to the university. This resulted in the creation of the Office of Energy and Sustainability, establishment of targets for the reduction of greenhouse gas emissions, an emphasis on energy efficiency, increased recycling and alternative transportation rates, an institutional commitment to pursue LEED Silver certification or better for all new construction and major renovation projects, and continued student engagement in campus sustainability. We are pleased to report that we have made tremendous progress toward our goals and are continually implementing additional initiatives to achieve a more sustainable future.

The STARS program continues to evolve and offer greater opportunities for colleges and universities. We will submit an application again under version 1.2 to advance our rating from Silver to Gold. Thank you for this opportunity to continue our participation in STARS and to learn from our peers as we work together to advance sustainability in higher education.
Catawba

The Catawba Sustainability Center (CSC) is a 377-acre research and education site in Roanoke County, Virginia, that aims to inspire thought and discover solutions in environmental, social, and economic sustainability through research, education, and demonstration. The CSC works to advance environmental stewardship, community engagement, and economic growth by providing a living, learning environment for the teaching and demonstration of sustainable practices in land management, agriculture, and economics. The CSC hosts over 1,000 visitors a year and works closely with the academic, county, and community partners to promote its mission in the Catawba Valley.
Beginning Farmer, Education, and Food Access Programs

In conjunction with Virginia Cooperative Extension and the Virginia Young and Beginning Farmer/Rancher Coalition, the CSC continued its small farmer incubator program for another year by granting land access to five farmers during the 2017 growing season. CSC worked with those farmers to put over four acres under production to support their individual farm businesses. Another two acres were put in production in conjunction with a local high school to serve as an educational program as well as increasing access to healthy food in the region through the donation of that plot to a local food bank. Additionally, another half-acre was planted with a local “glean team” also for donation to a local food bank.

Conservation Credit for Agroforestry Production

In the early spring of 2017, the CSC along with faculty from the College of Natural Resources and Environment, demonstrated the potential of riparian and upland agroforestry systems to generate nutrient offset credits for sale in Virginia’s water quality marketplace. Over 1,300 trees were planted on over eight acres of both hillsides and along the Catawba Creek designed to generate water quality credits, produce fruit, nut, and floral crops, and provide opportunities for research on tree establishment and growth. This project was funded by the National Fish and Wildlife Foundation and is a partnership between Virginia Tech, the Chesapeake Bay Nutrient Land Trust, and the National Agroforestry Center.

Cooperative Research Grants

In 2017, the CSC awarded five cooperative research grants to Virginia Tech faculty to implement projects on the ground. From the applicants, the new projects established include historical research into the first three decades of the farm property, the facilitation of drone use in agriculture to high school students, the construction of a weather station on the property, the use of a UAV-based LiDAR system on a drone to develop detailed digital maps of the CSC property, and the introduction of a non-timber forest product plot that involves the cultivation of medicinal and edible plants as well as mushrooms.
Multi-Modal Transit Facility (MMTF) and Sustainability Showcase

The Multi-Modal Transit Facility (MMTF) is a partnership between the university and the Town of Blacksburg. It will function as a transit hub and will serve multiple modes of transportation. The LEED project boundary spans from Stanger St. to West Campus Dr., and will transform Perry St. into an expansive pedestrian mall. The facility will provide amenities for users, facilitate public interface, disseminate information, and promote alternative transportation.

This project will be the first building at Virginia Tech to pursue LEED Platinum certification. Some of the sustainability showcase items that will be included in the MMTF include:

- Rainwater from the building will be collected in storage tanks and be reused for gray water purposes in the building.
- A wind turbine will be installed as a demonstration of wind energy.
- Extensive photo-voltaic panels will be installed in select bus slip canopies to provide renewable energy.
- A green roof will be installed to provide natural insulation, CO2 reduction, and reduce rainwater runoff.
In Conclusion

The past year has been a “Sustainability Success” because of our achievements engaging our campus community and implementing a comprehensive Five Year Energy Action Plan. You can see these achievement in the faces of our faculty, staff, and students as they come together to make our campus even greener and in the results of our annual Greenhouse Gas (GHG) assessment showing a 7.6% decrease in our emissions in FY 16. Virginia Tech continues to lead in Sustainability.
Commonwealth of Virginia
Locality Recycling Rate Report
For Calendar Year 2016

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

Person Completing This Form: Dennis C. Cochrane

Title: Sustainability Program Manager, Office of Sustainability, Facilities Department

Address: Sterrett Center, Suite 48 (MC0529), 230 Sterrett Drive, Blacksburg, VA 24061

Phone #: (540)-231-5184 Email Address: denniscc@vt.edu

Summary: Virginia Tech, the Town of Blacksburg, the Town of Christiansburg, and Montgomery County are the four jurisdictional members of the Montgomery Regional Solid Waste Authority (MRSWA). Located in Christiansburg, Virginia, MRSWA operates a transfer facility that receives our recycling materials and municipal solid waste (trash). MRSWA and its jurisdictional members transitioned to a “Single Stream Recycling System” on July 1, 2015. With this system once recycling materials are weighed at MRSWA they are transported to “Recycling & Disposal Services (RDS) in Roanoke, Virginia, which serves as the recycling hub for the Roanoke and New River Valleys. Municipal solid waste is transported to the local landfill operated by the New River Resource Authority (NRRA) in Pulaski County, Virginia. Food waste for composting is transported from our eleven dining facilities to an on campus storage facility for further transport to Royal Oak Farm (ROF) located outside of Lynchburg, Virginia. MRSWA prepares a consolidated recycling rate report for our region using this DEQ format. Virginia Tech uses this same format to record our data for calculating our recycling rate for our main campus in Blacksburg, Virginia.

Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the solid waste planning unit to represent its recycling efforts for CY 2016. Data in this report was collected from our recycling and solid waste facilities, and from other recycling sources, including non-governmental entities. I certify that I have personally examined and am familiar with the information submitted in this form and any attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. These records will be made available for auditing purposes, if requested.

Dennis C. Cochrane  
Sustainability Program Manager  
MARCH 28, 2017

Authorized Signature  
Title  
Date
PART A: Recycling Rate Calculation - Using the formulae provided below and the information reported on Pages 3, 4 and 5 to calculate your recycling rates.

Step 1: \[
\text{[(PRMs) / (PRMs + MSW Disposed)]} \times 100 = \text{Base Recycling Rate } \%
\]

\[
\begin{align*}
1,904 \\ \text{TONS} \\
/ \\
1,904 \\ \text{TONS} \\
+ \\
3,867 \\ \text{TONS} \\
\times 100 = \\
33.0 \\
\%
\end{align*}
\]

Step 2: CREDITS calculation

a. Total Recycling Residue \(\underline{0\text{ tons}}\)
b. Total Solid Waste Reused \(\underline{10\text{ tons}}\)
c. Total Non-MSW Recycled \(\underline{1,541\text{ tons}}\)

CREDITS \(\underline{1,551\text{ tons}}\)

Step 3: \[
\text{[(PRMs + CREDITS) / (PRMs + CREDITS + MSW Disposed)]} \times 100 = \text{Recycling Rate #1}\text{*}
\]

\[
\begin{align*}
1,904 \\ \text{TONS} \\
+ \\
1,551 \\ \text{TONS} \\
/ \\
1,904 \\ \text{TONS} \\
+ \\
1,551 \\ \text{TONS} \\
+ \\
3,867 \\ \text{TONS} \\
\times 100 = \\
47.2 \\
\%
\end{align*}
\]

Waste Diversion Rate (Waste kept out of landfill)

Step 4: \[\boxed{\text{Source Reduction Credit does not apply; or}}\]

\[\boxed{\text{Adjusted Recycling Rate #1 + 2% SRP Credit = Adjusted Recycling Rate #2}*}\]

\[47.2 \% \quad + \quad 2\% \quad = \quad 49.2 \%\]

Step 5: \[\boxed{\text{Final Recycling Rate}* \text{ for Solid Waste Planning Unit = 38.0 } \%}\]

* Total credits resulting from Steps 3 and 4 may not exceed 5 percentage points above the Base Recycling Rate achieved by the Solid Waste Planning Unit.
### Part I: Principal Recyclable Materials (PRMs)

Report only PRM material generated within the reporting SWPU and recycled, NOT imported PRMs for recycling.

<table>
<thead>
<tr>
<th>PRM TYPE</th>
<th>RECYCLED AMOUNT (TONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>444</td>
</tr>
<tr>
<td>Metal</td>
<td>36</td>
</tr>
<tr>
<td>Plastic</td>
<td>1</td>
</tr>
<tr>
<td>Glass</td>
<td>0</td>
</tr>
<tr>
<td>Commingled (also known as Single Stream)</td>
<td>503</td>
</tr>
<tr>
<td>Yard Waste (composted or mulched)</td>
<td>250</td>
</tr>
<tr>
<td>Waste wood (chipped or mulched)</td>
<td>150</td>
</tr>
<tr>
<td>White Goods</td>
<td>0</td>
</tr>
<tr>
<td>Tires</td>
<td>7</td>
</tr>
<tr>
<td>Used Oil</td>
<td>11</td>
</tr>
<tr>
<td>Used Oil Filters</td>
<td>1</td>
</tr>
<tr>
<td>Used Antifreeze</td>
<td>0</td>
</tr>
<tr>
<td>Batteries</td>
<td>9</td>
</tr>
<tr>
<td>Electronics</td>
<td>24</td>
</tr>
<tr>
<td>Food Waste Organic-Composting</td>
<td>416</td>
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<tr>
<td>Waste Cooking Oil</td>
<td>38</td>
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<tr>
<td>Fluorescent Lights/Bulbs &amp; Ballasts</td>
<td>14</td>
</tr>
<tr>
<td><strong>TOTAL PRMs</strong></td>
<td><strong>1,904 (PRMs)</strong></td>
</tr>
</tbody>
</table>

(Enter Total on Page 2, Step 1)

### Listing of sources for PRM data

(consider only Virginia generated waste material)

1. Permitted solid waste facilities from which MSW disposed/recycled data was collected:
   a. Department of Facilities: Office of Sustainability
   b. Department of Facilities: Operations (Buildings and Grounds)
   c. Department of Facilities: University Design and Construction
   d. Department of Environmental Health and Safety
   e. Dining Services
   f. Fleet Services
   g. Department of Human Resources
   h. ________________________________________________
   i. ________________________________________________

2. Other facilities/operations (not included in #1 above) from which MSW disposed/recycled data was collected:
   a. Montgomery Regional Solid Waste Authority (MRSWA)
   b. YMCA at Virginia Tech
   c. ________________________________________________
   d. ________________________________________________
   e. ________________________________________________
   f. ________________________________________________
   g. ________________________________________________
   h. ________________________________________________
   i. ________________________________________________
Commonwealth of Virginia
Locality Recycling Rate Report
For Calendar Year 2016

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

Person Completing This Form: Dennis C. Cochrane

Title: Sustainability Program Manager, Office of Sustainability, Facilities Department

Address: Sterrett Center, Suite 48 (MC0529), 230 Sterrett Drive, Blacksburg, VA 24061

Phone #: (540)-231-5184 Email Address: denniscc@vt.edu

Summary: Virginia Tech, the Town of Blacksburg, the Town of Christiansburg, and Montgomery County are the four jurisdictional members of the Montgomery Regional Solid Waste Authority (MRSWA). Located in Christiansburg, Virginia, MRSWA operates a transfer facility that receives our recycling materials and municipal solid waste (trash). MRSWA and its jurisdictional members transitioned to a “Single Stream Recycling System” on July 1, 2015. With this system once recycling materials are weighed at MRSWA they are transported to “Recycling & Disposal Services (RDS) in Roanoke, Virginia, which serves as the recycling hub for the Roanoke and New River Valleys. Municipal solid waste is transported to the local landfill operated by the New River Resource Authority (NRRA) in Pulaski County, Virginia. Food waste for composting is transported from our eleven dining facilities to an on campus storage facility for further transport to Royal Oak Farm (ROF) located outside of Lynchburg, Virginia. MRSWA prepares a consolidated recycling rate report for our region using this DEQ format. Virginia Tech uses this same format to record our data for calculating our recycling rate for our main campus in Blacksburg, Virginia.

Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the solid waste planning unit to represent its recycling efforts for CY 2016. Data in this report was collected from our recycling and solid waste facilities, and from other recycling sources, including non-governmental entities. I certify that I have personally examined and am familiar with the information submitted in this form and any attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. These records will be made available for auditing purposes, if requested.

Authorized Signature: Dennis C. Cochrane  Title: Sustainability Program Manager  Date: March 28, 2017
Commonwealth of Virginia
Locality Recycling Rate Report
For Calendar Year 2016

Contact Information

Reporting Solid Waste Planning Unit: Virginia Tech

Person Completing This Form: Dennis C. Cochrane

Title: Sustainability Program Manager, Office of Sustainability, Facilities Department

Address: Sterrett Center, Suite 48 (MC0529), 230 Sterrett Drive, Blacksburg, VA 24061

Phone #: (540)-231-5184 Email Address: denniscc@vt.edu

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Dennis C. Cochrane
Sustainability Program Manager

Authorized Signature

MARCH 29, 2017

Date
### Locality Recycling Rate Report

**For Calendar Year 2016**

**Credits Worksheet**

---

### I. Reuse of any Solid Waste

<table>
<thead>
<tr>
<th></th>
<th>Material description</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️ PRM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ PRM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ PRM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Demolition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Debris</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>X Other</strong></td>
<td>Res Hall used furniture/appliances</td>
<td>10</td>
</tr>
<tr>
<td>✔️ Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL TONS** 10

(Enter data on Page 4, Solid Waste Re-Used)

---

### II. Recycling of any Non-Municipal Solid Waste

<table>
<thead>
<tr>
<th></th>
<th>Material description</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑️ Construction</td>
<td>Concrete/Masonry (New Cadet Hall)</td>
<td>1,171</td>
</tr>
<tr>
<td>☑️ Construction</td>
<td>Concrete/Masonry (New Class Bldg.)</td>
<td>314</td>
</tr>
<tr>
<td>☑️ Roofing</td>
<td>EPDM Materials (Derring Hall)</td>
<td>6</td>
</tr>
<tr>
<td>☑️ Roadwork</td>
<td>Asphalt Removal (Kent Street &amp; West Campus Drive)</td>
<td>50</td>
</tr>
<tr>
<td>✔️ Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️ Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL TONS** 1,541

(Enter data on Page 4, Non-MSW Recycled)

---

### III. Inoperable Vehicles Removed and Demolished

- Include number of vehicles that the localities received reimbursement from DMV under §46.2-1207 of the Code of Virginia.

# of vehicles removed/reimbursement received

Average tonnage per vehicle: **1 Ton each**

| Total Tons | 0 |

(Enter data on Page 3, PRMs, Inoperative Motor Vehicle Program)

---

**NOTE:** Check "Exclusions" on Page 5 to avoid listing of those materials on this worksheet and/or in the data fields of this report.
Part C: Recycling Rate Report Instructions

Amended Regulations for the Development of Solid Waste Management Plans (9 VAC 20-130-10 et seq.) require that Solid Waste Planning Units (SWPUs) in the Commonwealth develop complete, revised solid waste management plans. Section 9 VAC 20-130-120 B & C of the Regulations requires that a minimum recycling rate of the total municipal solid waste generated annually in each solid waste planning unit be maintained. It also requires that the plan describe how this rate shall be met or exceeded and requires that the calculation methodology be included in the plan. Section 9 VAC 20-130-165 D establishes that every solid waste management planning unit with populations over 100,000 shall submit to the department by April 30 of each year, the data and calculations required in 9 VAC 20-130-120 B & C for the preceding calendar year. SWPUs with populations of 100,000 or less are only required to report every 4 years (CY years 2016 and forward).

NOTE: ONLY RECYCLING RATE REPORTS FROM AN APPROVED SOLID WASTE PLANNING UNIT (SWPU) WILL BE ACCEPTED FOR PROCESSING. JURISDICTIONS WITHIN A SWPU MUST SUBMIT THEIR RECYCLING DATA TO THE SWPU FOR INCORPORATION INTO THE ANNUAL REPORT.

It is requested that all amounts included on the form be listed in tons (2,000 pounds), rounded to the nearest whole ton. If actual weights are not known, volumes can be converted to weight estimates. To assist you with these estimates, a standardized volume-to-weight conversion table is attached.

Contact Information Section: Please provide information on the Reporting SWPU and information on the individual completing this form. Under Member Governments, please list the local governments identified in the applicable solid waste management plan.

Calculated Recycling Rate Section: Using the formulae provided, calculate your recycling rates for the reporting period from information identified in the Recycling Rate Calculations Section.

Signature Block Section: Please provide an authorized signature prior to submitting the completed form. Authorized signatories include Executive Officer, Administrator, or other legally designated representative of the SWPU reporting entity.

Recycling Rate Calculations Section: Please provide the requested information:

Part I: Principal Recyclable Material (PRM) - Report the amount in tons of each PRM collected for recycling in the named jurisdiction(s) during the reporting period. PRMs include paper, metal, plastic, container glass, commingled, yard waste, waste wood, textiles, tires, used oil, used oil filters, used antifreeze, batteries, electronics, and other materials approved by the Director taken from the Municipal Solid Waste (MSW) generation. A one ton credit may also be entered for each inoperable motor vehicle for which a locality receives reimbursement from the Virginia Department of Motor Vehicles under §46.2-1207 of the Code of Virginia. The total weight in TONS of all PRMs collected for recycling is represented as PRMs in the Recycling Rate Calculation. New for CY 2015: Provide source information for the PRMs reported on the report (permitted and unpermitted facilities).

Part II: Credits - Report the amount in TONS of each material for which recycling credit is authorized in §10.1-1411.C of the Code of Virginia: (i) one ton for each ton of recycling residue generated in Virginia and deposited in a landfill permitted under §10.1-1408.1 of the Code of Virginia; (ii) one ton for each ton of any solid waste material that is reused; and, (iii) one ton for each ton of any non-municipal solid waste that is recycled. The total weight in TONS of all material for which credits are authorized is represented as CREDITS in the Recycling Rate Calculation. A credit of two percentage points of the minimum recycling rate mandated for the Solid Waste Planning Unit (SWPU) may be taken for a source reduction program that is implemented and identified in its Solid Waste Management Plan. Total credits may not exceed five percentage points above the Base Recycling Rate achieved by the SWPU.

Part III: Total Municipal Solid Waste (MSW) Disposed: Report the total amount in TONS of MSW that was disposed of by the Solid Waste Planning Unit (SWPU) during the reporting period for each of the source categories (Household, Commercial, Institutional, and Other). For the purpose of this report, "disposed," means delivery to a permitted sanitary landfill or waste incinerator for disposal, and excludes industrial wastes. Industrial waste and by-products should not be included in the MSW or Recycling calculation. The total weight in tons of MSW disposed is represented as MSW Disposed in the Recycling Rate Calculation.
<table>
<thead>
<tr>
<th>Material</th>
<th>Volume</th>
<th>Weight in Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Cans, Whole</td>
<td>One cubic yard</td>
<td>50-74</td>
</tr>
<tr>
<td>Aluminum Cans, Flattened</td>
<td>One cubic yard</td>
<td>250</td>
</tr>
<tr>
<td>Aluminum Cans</td>
<td>One full grocery bag</td>
<td>1.5</td>
</tr>
<tr>
<td>Ferrous Cans, Whole</td>
<td>One cubic yard</td>
<td>150</td>
</tr>
<tr>
<td>Ferrous Cans, Flattened</td>
<td>One cubic yard</td>
<td>850</td>
</tr>
<tr>
<td>Automobile Bodies</td>
<td>One vehicle</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Paper</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsprint, Loose</td>
<td>One cubic yard</td>
<td>360-800</td>
</tr>
<tr>
<td>Newsprint, Compacted</td>
<td>One cubic yard</td>
<td>720-1,000</td>
</tr>
<tr>
<td>Newsprint</td>
<td>12&quot; stack</td>
<td>35</td>
</tr>
<tr>
<td>Corrugated Cardboard, Loose</td>
<td>One cubic yard</td>
<td>75-100</td>
</tr>
<tr>
<td>Corrugated Cardboard, Baled</td>
<td>One cubic yard</td>
<td>1,000-2,000</td>
</tr>
<tr>
<td><strong>Plastic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PETE, Whole, Loose</td>
<td>One cubic yard</td>
<td>30-40</td>
</tr>
<tr>
<td>PETE, Whole, Baled</td>
<td>Gaylord</td>
<td>40-53</td>
</tr>
<tr>
<td>PETE, Whole, Baled</td>
<td>30&quot; x 62&quot;</td>
<td>500</td>
</tr>
<tr>
<td>Film, Baled</td>
<td>30' x 42&quot; x 48&quot;</td>
<td>1,100</td>
</tr>
<tr>
<td>Film, Baled</td>
<td>Semi-load</td>
<td>44,000</td>
</tr>
<tr>
<td>Film, Loose</td>
<td>Standard grocery bag</td>
<td>15</td>
</tr>
<tr>
<td>HDPE (Dairy Only), Whole, Loose</td>
<td>One cubic yard</td>
<td>24</td>
</tr>
<tr>
<td>HDPE (Dairy Only), Baled</td>
<td>32&quot; x 60&quot;</td>
<td>400-500</td>
</tr>
<tr>
<td>HDPE (Mixed), Baled</td>
<td>32&quot; x 60&quot;</td>
<td>900</td>
</tr>
<tr>
<td>Mixed PET &amp; Dairy, Whole, Loose</td>
<td>One cubic yard</td>
<td>32</td>
</tr>
<tr>
<td>Mixed PET, Dairy &amp; Other Rigid (Whole, Loose)</td>
<td>One cubic yard</td>
<td>38</td>
</tr>
<tr>
<td>Mixed Rigid, No Film</td>
<td>One cubic yard</td>
<td>49</td>
</tr>
<tr>
<td><strong>Glass</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass, Whole Bottles</td>
<td>One cubic yard</td>
<td>600-1,000</td>
</tr>
<tr>
<td>Glass, Semi-Crushed</td>
<td>One cubic yard</td>
<td>1,000-1,800</td>
</tr>
<tr>
<td>Glass, Crushed (Mechanically)</td>
<td>One cubic yard</td>
<td>800-2,700</td>
</tr>
<tr>
<td>Glass, Whole Bottles</td>
<td>One full grocery bag</td>
<td>16</td>
</tr>
<tr>
<td>Glass, Uncrushed to Manually Broken</td>
<td>55 gallon drum</td>
<td>125-500</td>
</tr>
<tr>
<td><strong>Arboreal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaves, Uncompacted</td>
<td>One cubic yard</td>
<td>200-250</td>
</tr>
<tr>
<td>Leaves, Compacted</td>
<td>One cubic yard</td>
<td>300-450</td>
</tr>
<tr>
<td>Leaves, Vacuumed</td>
<td>One cubic yard</td>
<td>350</td>
</tr>
<tr>
<td>Wood Chips</td>
<td>One cubic yard</td>
<td>500</td>
</tr>
<tr>
<td>Grass Clippings</td>
<td>One cubic yard</td>
<td>400-1,500</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery (Heavy Equipment)</td>
<td>One</td>
<td>60</td>
</tr>
<tr>
<td>Battery (Auto)</td>
<td>One</td>
<td>35.9</td>
</tr>
<tr>
<td>Used Motor Oil</td>
<td>One gallon</td>
<td>7.4</td>
</tr>
<tr>
<td>Used Oil Filters (Uncrushed)</td>
<td>55 gallon drum</td>
<td>66 Lbs./Used Oil +</td>
</tr>
<tr>
<td></td>
<td></td>
<td>110 Lbs./Ferrous Metal</td>
</tr>
<tr>
<td>Used Oil Filters (Crushed)</td>
<td>55 gallon drum</td>
<td>16.5 Lbs./Used Oil +</td>
</tr>
<tr>
<td></td>
<td></td>
<td>368 Lbs./Ferrous Metal</td>
</tr>
<tr>
<td>Tire - Passenger Car</td>
<td>One</td>
<td>20</td>
</tr>
<tr>
<td>Tire - Truck, Light</td>
<td>One</td>
<td>35</td>
</tr>
<tr>
<td>Tire - Semi</td>
<td>One</td>
<td>105</td>
</tr>
<tr>
<td>Antifreeze</td>
<td>One gallon</td>
<td>8.42</td>
</tr>
<tr>
<td>Food Waste, Solid &amp; Liquid Fats</td>
<td>55 gallon drum</td>
<td>412</td>
</tr>
<tr>
<td>Electronics: CRT/CPU/Laptop/TV</td>
<td>Each (avg wt from NCER)</td>
<td>38/26/8/49 respectively</td>
</tr>
</tbody>
</table>

This Table For General Guidance Only.
Energy and Sustainability Committee
2016-2017 Members

CHARGE: To review and provide advice to the University Administration on broad policy issues relating to the university's energy supply and use, and resource conservation. Reports to: Commission on University Support.

Chair - President will appoint annually from among members of the committee

Denny Cochrane  Chair  2017

Ex Officio

Sherwood Wilson  Vice President for Administration  ex officio
Dwight Shelton  Vice President for Finance and CFO  ex officio
Chris Kiwus  Associate Vice President and Chief Facilities Officer  ex officio
Jason Soileau  Assistant Vice President for University Planning  ex officio
Frances Keene  Chief of Operations and Deputy to the Associate Vice President, Student Affairs  ex officio
Denny Cochrane  Sustainability Program Manager  ex officio

Two representatives from Facilities Services selected by the Vice President for Administration (three-year terms)

Vacant  Transportation Planning  2018
Byron Nichols  Power Plant Operations  2019

One representative from Virginia Tech Environmental Health & Safety Services selected by the Vice President for Administration (one-year term)

Rob Lowe  Environmental Health and Safety  2017

Four representatives from the Faculty Senate nominated by the Faculty Senate (three-year terms)

Bruce Obenhaus  Library  2017
Edward Lener  Library  2019
Sean McGinnis  Materials Science Engineering  2019
Timothy Baird  Geography  2018

Two representatives from the Staff Senate nominated by the Staff Senate (three-year terms)

Alex Guest  Engineering Education  2019
Judy Taylor  Provost-Administration  2019
Locality Recycling Rate Report  

For Calendar Year 2016

PART A: Recycling Rate Calculation - Using the formulae provided below and the information reported on Pages 3, 4 and 5 to calculate your recycling rates.

Step 1: \[
\frac{(PRMs)}{(PRMs + MSW Disposed)} \times 100 = \text{Base Recycling Rate } \% \]

\[
\begin{array}{c}
1,904 \\
\text{TONS}
\end{array}
\div \begin{array}{c}
1,904 \\
\text{TONS}
\end{array} + \begin{array}{c}
3,867 \\
\text{TONS}
\end{array} \times 100 = 33.0 \%

Step 2: CREDITS calculation

a. Total Recycling Residue \hspace{2cm} 0 tons
b. Total Solid Waste Reused \hspace{2cm} 10 tons
c. Total Non-MSW Recycled \hspace{2cm} 1,541 tons

CREDITS = 1,551 tons

Step 3: \[
\frac{(PRMs + CREDITS)}{(PRMs + CREDITS + MSW Disposed)} \times 100 = \text{Recycling Rate } #1^* \]

\[
\begin{array}{c}
1,904 + 1,551 \\
\text{TONS}
\end{array} \div \begin{array}{c}
1,904 + 1,551 \\
\text{TONS}
\end{array} + \begin{array}{c}
3,867 \\
\text{TONS}
\end{array} \times 100 = 47.2 \%

Adjusted Waste Diversion Rate
(Waste kept out of landfill)

Step 4: \[
\checkmark \quad \text{Source Reduction Credit does not apply; or} \]

Adjusted Recycling Rate \#1 + 2% SRP Credit = Adjusted Recycling Rate \#2^*

\[
47.2 \% + 2\% = 49.2 \%

Step 5: Final Recycling Rate^* for Solid Waste Planning Unit = 38.0 \%

* Total credits resulting from Steps 3 and 4 may not exceed 5 percentage points above the Base Recycling Rate achieved by the Solid Waste Planning Unit.
<table>
<thead>
<tr>
<th>PROJECT</th>
<th>PROJECT #</th>
<th>BUDGET</th>
<th>GSF</th>
<th>CONSTRUCTION START</th>
<th>OCCUPANCY DATE</th>
<th>STATUS</th>
<th>LEED CERTIFICATION</th>
<th>DATE OF CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henderson Hall Renovation &amp; Theater 101 Addition</td>
<td>208-16758-001</td>
<td>$15,838,792</td>
<td>38,750</td>
<td>02/18/08</td>
<td>08/14/09</td>
<td>Project Complete</td>
<td>Gold</td>
<td>02/01/10</td>
</tr>
<tr>
<td>Football Locker Room Addition</td>
<td>208-L00016-000</td>
<td>$14,004,621</td>
<td>42,145</td>
<td>07/08/09</td>
<td>06/21/11</td>
<td>Project Complete</td>
<td>Silver</td>
<td>10/01/11</td>
</tr>
<tr>
<td>ICTAS II - Institute for Critical Technology &amp; Applied Science Ph.I</td>
<td>208-17291-000</td>
<td>$34,587,710</td>
<td>42,190</td>
<td>04/08/09</td>
<td>04/06/11</td>
<td>Project Complete</td>
<td>Gold</td>
<td>11/01/11</td>
</tr>
<tr>
<td>Visitors &amp; Undergraduate Admissions Center</td>
<td>208-L00012-000</td>
<td>$10,338,192</td>
<td>18,155</td>
<td>03/23/10</td>
<td>08/29/11</td>
<td>Project Complete</td>
<td>Certified</td>
<td>08/01/12</td>
</tr>
<tr>
<td>Academic &amp; Student Affairs Building (Lavery Hall)</td>
<td>208-17859-000</td>
<td>$44,302,610</td>
<td>77,301</td>
<td>07/29/10</td>
<td>09/05/12</td>
<td>Project Complete</td>
<td>Silver</td>
<td>04/01/13</td>
</tr>
<tr>
<td>Vet Med Instructional Addition</td>
<td>208-19791-000</td>
<td>$12,343,316</td>
<td>24,600</td>
<td>07/26/11</td>
<td>11/05/12</td>
<td>Project Complete</td>
<td>Silver</td>
<td>06/01/13</td>
</tr>
<tr>
<td>Amber Johnston Hall - Improve Residential &amp; Dining Halls</td>
<td>208-17557-000</td>
<td>$66,968,879</td>
<td>269,463</td>
<td>05/26/09</td>
<td>06/25/12</td>
<td>Project Complete</td>
<td>Gold</td>
<td>11/01/13</td>
</tr>
<tr>
<td>Chiller Plant Phase I (Southwest Chiller Plant)</td>
<td>208-17657-000</td>
<td>$20,097,729</td>
<td>16,655</td>
<td>03/22/12</td>
<td>06/14/13</td>
<td>Project Complete</td>
<td>Silver</td>
<td>11/01/13</td>
</tr>
<tr>
<td>Center for the Arts (Moss Arts Center)</td>
<td>208-16758-002</td>
<td>$100,087,000</td>
<td>147,382</td>
<td>08/10/10</td>
<td>08/21/13</td>
<td>Project Complete</td>
<td>Gold</td>
<td>05/01/14</td>
</tr>
<tr>
<td>Human &amp; Agricultural Biosciences Building I</td>
<td>229-17681-000</td>
<td>$53,759,344</td>
<td>93,860</td>
<td>12/22/11</td>
<td>03/10/14</td>
<td>Project Complete</td>
<td>Gold</td>
<td>04/17/15</td>
</tr>
<tr>
<td>Indoor Athletic Training Facility</td>
<td>208-17296-000</td>
<td>$21,300,000</td>
<td>91,600</td>
<td>04/23/14</td>
<td>06/25/15</td>
<td>Project Complete</td>
<td>Silver</td>
<td>10/05/15</td>
</tr>
<tr>
<td>Signature Engineering Building (Goodwin Hall)</td>
<td>208-17658-000</td>
<td>$95,218,249</td>
<td>154,935</td>
<td>09/13/11</td>
<td>05/29/14</td>
<td>Project Complete</td>
<td>Gold</td>
<td>10/28/15</td>
</tr>
<tr>
<td>Renovate Davidson Hall</td>
<td>208-17662-000</td>
<td>$32,003,099</td>
<td>44,845</td>
<td>02/17/12</td>
<td>06/08/14</td>
<td>Project Complete</td>
<td>Certified</td>
<td>03/11/16</td>
</tr>
<tr>
<td>Upper Quad Residential Facilities (Pearson Hall)</td>
<td>208-L00031-000</td>
<td>$45,500,000</td>
<td>111,191</td>
<td>10/14/13</td>
<td>01/24/17</td>
<td>Project Complete</td>
<td>Silver</td>
<td>12/16/16</td>
</tr>
</tbody>
</table>

Total GSF: 1,173,072
The following report provides a summary status on implementation of the Virginia Tech Climate Action Commitment and Sustainability Plan (VTCAC&SP) for 2016-2017. The VTCAC&SP was developed in 2009 and revised in 2013.

A. KEY SUSTAINABILITY METRICS

1. **Greenhouse Gas (GHG) Emissions**: “Virginia Tech will establish a target for reduction of campus GHG emissions to 80% below 1990 emission level (38,000 tons) by 2050…” (VTCAC&SP)

   **Comments**

   2.7% increase in FY2017 driven by:

   • 4.7% increase in carbon emission rate from purchased electric energy compared to last fiscal year. This is due to reduction in AEP’s nuclear energy generation and increase in natural gas generation
2. **Energy Use Intensity (kBtu's/GSF):** “Virginia Tech will improve electricity and heating efficiency of campus facilities and their operations by improving the heating and cooling infrastructure and operation, lighting efficiency, equipment efficiency, and metering and controls of its existing buildings.” (VTCAC&SP)

**Comments**

- 2.26% increase in overall energy consumption on campus driven by 1.58% increase in electric energy and 2.8% increase in combined fuel consumption in FY2017 over FY2016.

- The university added approximately 120,000 square feet in construction during FY17 (New Cadet Hall, Davidson II)

- To enhance the on-going efforts to operate more efficiently and reduce consumption of energy on campus, University has developed a 5-year Energy Action Plan. Central Administration has funded Phase 1 of the plan in the amount of $2.5 million and Phase 2 of the plan in the amount of $3.5 million.

3. **Water Consumption:** “Virginia Tech will engage students, faculty, and staff through education and involvement to develop and implement innovative strategies for efficient and sustainable use of energy, water, and materials in all university-owned facilities.” (VTCAC&SP)

**Comments**

- 5.3% decrease over FY2017 driven by reduction in unaccounted water loss and better water management practices.
4. **Alternative Transportation Use**: “Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and alternative transportation policies and practices.” *(VTCAC&SP)*

**Comments**

- Virginia Tech received its eighth straight gold award from the Best Workplaces for Commuters Race for Excellence, after having been named “Best Of” in the university category in 2014.

- The university has reapplied to the League of American Bicyclists for 2017 after being named a Bronze level Bicycle Friendly University in 2014. This is evaluated every three years.

- The office of Alternative Transportation conducted the second iteration of the biennial Commuter Survey in the spring of 2016. The survey results showed that 81.6% of campus affiliates (faculty, staff, and students) use at least one alternative mode as a primary transportation source.

<table>
<thead>
<tr>
<th>Alternative Transportation (AT)</th>
<th>(total % campus population using AT as a primary mean of commute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17</td>
<td>Survey conducted in alternate years.</td>
</tr>
<tr>
<td>FY16</td>
<td><strong>82%</strong></td>
</tr>
<tr>
<td>FY15</td>
<td>Survey conducted in alternate years.</td>
</tr>
<tr>
<td>FY14</td>
<td><strong>55%</strong></td>
</tr>
<tr>
<td>FY13</td>
<td>VT adopted a more accurate methodology to determine % of AT users.</td>
</tr>
<tr>
<td>FY12</td>
<td></td>
</tr>
</tbody>
</table>
2016–17
Office of Sustainability
Annual Report

Office of Sustainability
Sterrett Facilities Complex
230 Sterrett Drive
Blacksburg, VA 24061

540-231-4300
facilities.vt.edu/sustainability.html
Program development is preceded by industry engagement through the ongoing campus master plan update. Industry forums to be conducted in fall 2017 to provide additional insight into program definition.

**Global Business Analytics Complex**
The feasibility study for the Global Business and Analytics Complex (G-BAC) will investigate facility options for up to four buildings comprising a replacement for the Pamplin School of Business, creation of a Data Analytics and Decision Sciences facility, and two living/learning communities.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Description</th>
<th>Estimated Total Project Cost</th>
<th>Non-General Funds</th>
<th>Project Teams</th>
<th>Contract Completion Date</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Business Analytics Complex</td>
<td>The feasibility study is underway with scheduled completion in November 2017.</td>
<td>TBD</td>
<td>TBD</td>
<td>Moseley Architects/RAMSA</td>
<td>TBD</td>
<td>The feasibility study is complete. Final renderings and cost estimate were received in October 2017. Working with the Pamplin College of Business on additional changes to the program for donor fundraising efforts. A large fundraising effort will be conducted in Washington D.C. mid-December 2017 and will include a presentation of the resulting concepts. Coordination ongoing between the Dean of the Pamplin College of Business and the Project Manager.</td>
</tr>
<tr>
<td>Global System Sciences</td>
<td>Envisioned as a destination, the facilities will serve as the headquarters of what is anticipated to be a world-renowned group focused on solving critical regional and global problems, including environmental, animal and human health. This facility will include disciplinary and interdisciplinary faculty of the College of Science, College of Natural Resources, College of Agriculture and Life Sciences, and the College of Veterinary Medicine, and University Institutes to facilitate education and research related to this important destination area.</td>
<td>TBD</td>
<td>TBD</td>
<td>EYP</td>
<td>TBD</td>
<td>Kickoff meeting with Architect/Engineer (A/E) firm completed. Study scope of work received in mid-September 2017 and returned with comments in late-September 2017. The feasibility study is anticipated to begin in January 2018.</td>
</tr>
<tr>
<td>Health Center Improvements/Student Wellness Services</td>
<td>The project provides a comprehensive solution for student wellness services through upgrades to McComas Hall and major renovations to War Memorial Hall to meet the needs of the Schiffert Health Center, Cook Counseling Center, Recreational Sports, College of Liberal Arts and Human Sciences programs, and the College of Agriculture and Life Sciences (Human Nutrition Foods &amp; Exercise).</td>
<td>TBD</td>
<td>TBD</td>
<td>CannonDesign</td>
<td>TBD</td>
<td>The feasibility study is complete. The final report was received in October 2017. The project transitioned directly to Schematic Design and full project delivery design services in fall 2017.</td>
</tr>
<tr>
<td>Newman Library Feasibility Study</td>
<td>The project will evaluate existing building’s infrastructure, code compliance for egress, change of building use, and restroom facilities.</td>
<td>TBD</td>
<td>TBD</td>
<td>Colley Architects Blacksburg, VA</td>
<td>November 2017</td>
<td>The feasibility study is underway with scheduled completion in November 2017.</td>
</tr>
<tr>
<td>Undergraduate Science Laboratory</td>
<td>The project will construct a new undergraduate science laboratory facility of 102,000 gross square feet (GSF) to accommodate the growing demand for STEM-H degrees at Virginia Tech.</td>
<td>$71,709,000</td>
<td>$0</td>
<td>ZGF Architects Washington, DC</td>
<td>June 2021</td>
<td>The feasibility study was completed in October 2017. Schematic design will follow and is expected to be completed in May 2018.</td>
</tr>
</tbody>
</table>

**PROGRAMMING**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Description</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Hall Enclosure &amp; Spirit Plaza</td>
<td>This project will expand dining services by enclosing approximately 6,400 GSF of overhang area to create new interior space, relocating VT Services to the southeast corner of the building, and constructing an operable facade at Deet’s Place and pickup window at DIngress. Also, the plaza area will be renovated to create an exterior space that can provide an environment to study and host events and gatherings.</td>
<td>Received nine proposals for full design services. Proposals are currently under review. Shortlisted firms will then be scheduled for interviews.</td>
</tr>
<tr>
<td>Intelligent Infrastructure (Hitt/Smart Dining)</td>
<td>Program elements envision a 30,000 GSF Hitt Hall space connected to Bishop-Favreau Hall, a 15,000 GSF Fusion Lab, a 30,000 GSF Smart Dining space and a 5,000 GSF Data for the Masses student activity space. Project intent is to showcase technology and innovation as a key component of the Intelligent Infrastructure Destination Area.</td>
<td>Program development is preceded by industry engagement through the ongoing campus master plan update. Industry forums to be conducted in fall 2017 to provide additional insight into program definition.</td>
</tr>
<tr>
<td>Project Name</td>
<td>Project Description</td>
<td>Estimated Total Project Cost</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Virginia Tech Carolina (VTC) Biomedical Research Expansion</td>
<td>This project, executed under the Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA), will construct an approximately 139,000 GSF building adjacent to the Virginia Tech - Carolina Research Institute in Roanoke, VA. The new facility will include high intensity biomedical research capable laboratories with surgical-type suites, Bio-safety Level Three laboratories, and animal imaging facilities that require high field magnetic resonance imaging. The remaining space will include high intensity dry laboratory research and training spaces including computational facilities, offices, procedural training rooms, and technical training space.</td>
<td>$89,865,000</td>
</tr>
<tr>
<td>DESIGN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler Package 12</td>
<td>Demolition and disposal of decommissioned coal fired boiler (No. 6) and installation of a new 100 bhp/hour natural gas/oil fired packaged boiler (No. 12)</td>
<td>$6,800,000</td>
</tr>
<tr>
<td>Chiller Plant Phase II</td>
<td>This project includes the replacement and upgrade of plant equipment in the existing campus chiller plants and the expansion of the underground distribution infrastructure to link campus chiller substations and bring existing campus buildings on line. The improvements include the replacement of two outdated chillers in the North Plant with two new upgraded larger capacity chillers; and addition of up to two new 1,500 ton chillers in the Southwest Plant. The project also includes the replacement and upgrade of ancillary equipment with state-of-the-art, optimally sized pumping and system support equipment.</td>
<td>$40,821,000</td>
</tr>
<tr>
<td>Corps Leadership and Military Science</td>
<td>Three story structure that provides a centralized and consolidated home to the Corps of Cadets administration and ROTC programs.</td>
<td>TBD</td>
</tr>
<tr>
<td>Creativity &amp; Innovation District Living Learning Community</td>
<td>This project involves the provision of a new residential life building in the newly emerging Creativity &amp; Innovation District on campus. The proposed ~203,000 GSF (~520 bed) facility will support the growing living/learning community (LLC) anticipated for this key area of campus and is a realization of Virginia Tech’s Beyond Boundaries initiative.</td>
<td>TBD</td>
</tr>
<tr>
<td>Holden Hall Renovation</td>
<td>This project includes the renovation of an approximately 21,000 GSF portion of Holden Hall fronting the Drillfield. The remaining 21,000 GSF of the existing building will be demolished and replaced with approximately 80,000 GSF of new engineering instruction and research space for a total building size of 101,000 GSF.</td>
<td>$61,886,000</td>
</tr>
<tr>
<td>Project Name</td>
<td>Project Description</td>
<td>Estimated Total Project Cost</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Improve Kentland Facilities</td>
<td>This project includes new construction of three buildings totaling approximately 28,900 GSF including a metabolic research laboratory, an applied reproduction facility, and a bovine extension teaching/research facility to serve Agency 225, Virginia Cooperative Extension and the Virginia Agricultural Experiment Station.</td>
<td>$9,363,000</td>
</tr>
<tr>
<td>Livestock and Poultry Research Facilities (Phase I)</td>
<td>This project is the first of two phases to renew existing facilities for the College of Agriculture and Life Sciences' livestock and poultry programs. This first phase includes approximately 126,000 GSF of new and renovated facilities located along Plantation Road and Giles Road and at Kentland Farm.</td>
<td>$22,500,000</td>
</tr>
<tr>
<td>Multi-Modal Transit Facility</td>
<td>This is a Capital Lease Project administered by the Town of Blacksburg (ToB) and funded by Federal Transportation Administration grants and a university match. This project is targeted for LEED Platinum to provide a campus sustainability demonstration showcase.</td>
<td>$38,000,000</td>
</tr>
<tr>
<td>Undergraduate Science Laboratories Renovations</td>
<td>This project will repurpose six laboratory/teaching spaces in Derring Hall and one laboratory in Hahn Hall. These repurposed laboratories will expand space to meet growing demand for course sections in biology, chemistry, organic chemistry, and microbiology.</td>
<td>$10,000,000</td>
</tr>
</tbody>
</table>

**CONSTRUCTION**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Description</th>
<th>Estimated Total Project Cost</th>
<th>Non-General Funds</th>
<th>Project Teams</th>
<th>Contract Completion Date</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Facilities Improvements</td>
<td>This is an umbrella project for improvements to multiple athletics facilities, including Rector Field House, Baseball, Tennis, and Cassell Coliseum Bowman Room (Nutrition Center).</td>
<td>$37,500,000</td>
<td>$37,500,000</td>
<td>Rector: Cannon Design Baseball: Cannon Design Tennis: TKA Architects (Criteria Documents) Nutrition: Hanbury Architects</td>
<td>Rector: Spring 2018 Baseball: Spring 2018 Tennis: TBD Nutrition: TBD</td>
<td>Sub-projects as follows: 1) Rector Field House - Includes building renovation and new additions to provide indoor infield, batting and pitching cages for softball, and indoor throws area for Indoor Track &amp; Field, new entry, restrooms, team rooms, and support spaces. Precast concrete panel erection has been completed; work in progress includes masonry walls, re-roof of existing Field House, stone masonry, MEP rough-ins. 2) Baseball - Includes demolition of the existing press box and seating bowl, and construction of a new, larger press box structure to include suites, press, game operations, radio/TV broadcast, ticket office, team store, concessions, restrooms, and support spaces. Also includes renovations to the existing Weaver Baseball Center to add a team locker room, team lounge, training equipment, coaches locker room, and support spaces. Precast concrete panel erection has been completed; work in progress includes masonry walls, MEP rough-ins, roofing systems, curtainwall systems. 3) Tennis - Includes an addition and renovation to provide for improved tennis team and training facilities. The Design/Build Team has been selected. Design Preview approved by BOV at September 2017 meeting. Project is on hold pending funding authorization. 4) Nutrition Center - Includes the renovation and new construction to provide improvements for athletic team training and nutrition program by expanding the existing Bowman Room. A Fee Proposal has been requested for Design Services. Construction Phase is on hold pending funding and construction authorization.</td>
</tr>
<tr>
<td>Project Name</td>
<td>Project Description</td>
<td>Estimated Total Project Cost</td>
<td>Non-General Funds</td>
<td>Project Teams</td>
<td>Contract Completion Date</td>
<td>Project Status</td>
</tr>
<tr>
<td>------------------------------------</td>
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</tr>
<tr>
<td>Fire Alarm Systems and Access</td>
<td>This project provides for critical life safety improvements in several educational and general facilities on campus. Fire alarm systems will be installed or expanded in 132 campus buildings as funding allows, including Architecture Annex, Food Science &amp; Technology, Lane Hall, Litton-Reaves Hall, Norris Hall, Patton Hall, Randolph Hall, War Memorial Hall (Gym), Wallace Annex, and Whittemore Hall.</td>
<td>$4,900,000</td>
<td>$0</td>
<td>Multiple A/E Firms</td>
<td>Spring 2018</td>
<td>Architecture Annex, Food Science &amp; Technology, Lane Hall, Patton Hall, Wallace Annex, War Memorial Hall (Gym), Whittemore Hall, and Randolph Hall are complete. Installation of Fire Alarm System in Norris Hall is in progress. Funding for Litton-Reaves Hall will be requested from the Virginia Department of General Services.</td>
</tr>
<tr>
<td>Lane Electric Substation Expansion</td>
<td>This project will expand the existing electrical sub-station to add approximately 37 percent additional power capacity to serve the campus Life Sciences and Northwest Precincts and the Corporate Research Center's proposed expansion.</td>
<td>$6,500,000</td>
<td>$6,500,000</td>
<td>Appalachian Electric Power and Virginia Tech Electric Service</td>
<td>Anticipated Summer 2019</td>
<td>The project is administered by the VTES in coordination with Appalachian Power Company (APCo) and Appalachian Electric Power (AEP). Construction of two control buildings is complete and VTES is continuing electrical fit-out inside. New electrical lines have been checked and are satisfactory. APCo is continuing fit-out of additional metering points. Transformer procurement is complete, and delivery is scheduled.</td>
</tr>
<tr>
<td>O'Shaughnessy Hall Renovation</td>
<td>This project includes major renovation of a 72,000 GSF student residence building into a living-learning community. The residence hall originally housed 350 students and upon completion will house 344 students.</td>
<td>$21,500,000</td>
<td>$1,750,000</td>
<td>Mosely Architects Virginia Beach, VA</td>
<td>August 2018</td>
<td>Renovations are underway on multiple floors simultaneously, hazardous material abatement and demolition activities are complete, and site utility work is ongoing. Project is on schedule for occupancy in August 2018.</td>
</tr>
<tr>
<td>Renovate/Renew Academic Buildings</td>
<td>This project will renovate three existing campus buildings - Sandy Hall, Liberal Arts Building, and the original portion of Davidson Hall. Collectively, these renovations will increase the functionality of three underutilized building assets, address several deferred maintenance issues, and reduce critical space deficiencies. Small additions are planned for Sandy and Liberal Arts Buildings to meet current emergency egress code requirements. New elevators in Sandy and Liberal Arts Buildings will provide ADA access.</td>
<td>$35,029,000</td>
<td>$0</td>
<td>Glavé &amp; Holmes Architecture Richmond, VA</td>
<td>August 2018</td>
<td>Construction is underway on all three buildings. Substantial completion for the Liberal Arts Building is June 2018, Davidson Hall is July 2018, and Sandy Hall is August 2018.</td>
</tr>
<tr>
<td>Unified Communications and Network Renewal Project</td>
<td>This project replaces outdated equipment and upgrades campus communications systems, providing infrastructure and equipment enhancements over a five year period. The project scope includes upgrades to the Internet Protocol (IP) Network, the cable plant, and equipment rooms in buildings throughout campus.</td>
<td>$16,508,000</td>
<td>$16,508,000</td>
<td>Multiple A/E Firms</td>
<td>December 2017</td>
<td>Cabling work in Litton-Reaves is complete. The cabling project is substantially complete, remaining work to finish termination and testing in Hahn was completed in October 2017. The facilities project is substantially complete, the project team is collaborating with UBO and Facilities Department to address an HVAC capacity issue in Derring. The network equipment for the data center will be ordered in November 2017. Migration of data center network services to the new equipment will be phased with a target completion date of August 2018.</td>
</tr>
<tr>
<td>Upper Quad Residential Facilities</td>
<td>This project provides for the demolition and construction of replacements for Brotie and Rasche residence halls to serve the Corps of Cadets. The new residence halls totaling approximately 210,000 GSF will provide over 1,000 beds in double and triple rooms sharing hall community bathrooms. These new residence halls will be constructed at the approximate location of the original Rasche Hall and Brotie Hall. Both buildings will provide double and triple occupancy rooms that meet the residence and in-room storage space needs of the cadets. Both new residence halls will provide dedicated meeting, community, and group spaces, specifically designed to meet Corps program and organization needs. Thomas Hall and Monteleth Hall will also be demolished as part of this project.</td>
<td>$91,000,000</td>
<td>$91,000,000</td>
<td>Clark Nexsen Charlotte, NC</td>
<td>Pearl - August 2015</td>
<td>Construction of Pearson Hall (Rasche Hall replacement) and New Cadet Hall (Brotie Hall replacement) are complete. Stilwell and final stairs from Alumni Mall Road complete. Demolition of Monteleth and Thomas is underway and scheduled for completion in December 2017.</td>
</tr>
</tbody>
</table>
Capital Project Status Report

Christopher H. Kiwus, PE, PhD
Associate Vice President and Chief Facilities Officer
• Global Business Analytics Complex
• Global System Sciences
• Health Center Improvements / Student Wellness Services
• Newman Library Feasibility Study
• Undergraduate Science Laboratory
- Projects In Programming

- Dietrick Hall Enclosure & Spirit Plaza
- Intelligent Infrastructure (Hitt/Smart Dining)
- Virginia Tech Carilion (VTC) Biomedical Research Expansion
- **Projects In Design**

  - Boiler Package 12
  - Chiller Plant Phase II
  - Corps Leadership and Military Science
  - Creativity & Innovation District Living Learning Community
  - Holden Hall Renovation
  - Improve Kentland Facilities
  - Livestock and Poultry Research Facilities (Phase I)
  - Multi-Modal Transit Facility
  - Undergraduate Science Laboratories Renovations
- Projects Under Construction

- Athletic Facilities Improvements
- Fire Alarm Systems and Access
- Lane Electric Substation Expansion
- O'Shaughnessy Hall Renovation
- Renovate/Renew Academic Buildings
- Unified Communications and Network Renewal Project
- Upper Quad Residential Facilities
Kevin Foust  
Chief of Police

- Mercer County Sheriff’s Office  
  - 1984–1987
- Federal Bureau of Investigation  
  - 1987–2011
- Virginia Tech Police Department  
  - 2011–present

Graduate of:
- Grove City College – B.A. Political Science & B.A. Communication Arts
- Pennsylvania Deputy Sheriff’s Training Academy
- FBI New Agent’s Class 87-5
- FBI Executive Leadership Institute
- Kellogg School of Management, Northwestern Univ.

Memberships:
- Virginia Association of Campus Law Enforcement Administrators, Executive Board, 2013–2017
- Cardinal Criminal Justice Academy, Board of Directors, 2014–present
- Governor of Virginia’s Alcohol Beverage Control Expert Review Panel
- Governor of Virginia’s Joint Task Force to Reduce Gun Crime in Virginia
- Former Adjunct Faculty at Roanoke College

Michael J. Mulhare, PE  
Assistant Vice President, Emergency Management

- Rhode Island Department of Environmental Management  
  - 1985–2008
  - Variety of experience including:
    - Emergency Management and Response,
    - Regulatory and compliance programs,
    - Hazardous materials management,
    - Site remediation, groundwater restoration, etc.
- Virginia Tech Emergency Management  
  - 2008–present

Graduate of:
- University of Rhode Island – M.S. Civil & Environmental Engineering
- Saint Josephs College, Maine – B.A. Biology
- Harvard Institute for Higher Education; Crisis Leadership in Higher Education

Memberships:
- Virginia Emergency Management Association (VEMA) Board
- Virginia Department of Emergency Management Continuity of Operations Work Group
- Several U.S. Coast Guard Safety/Security Committees
  - Received a Public Service Commendation from USCG
- Registered Professional Engineer

Invited speaker at campuses and localities across the country to share Virginia Tech’s model for Emergency Management, which he was instrumental in developing.
Welcome to the Virginia Tech Police Department

• Created in 1945 with 3 employees

• Current staffing: 50 sworn officers, 7 Security Officers, 8 Security Center Representatives, 8 professional support employees, Safe Ride drivers

• Specialized areas include:
  • Emergency Response Team
  • 3 K9 units
  • Investigative Unit
  • Dive Team
  • FBI’s Joint Terrorism Task Force
  • New River Valley Drug Task Force
Regional Cooperation = Force Multiplier

• Very close partnerships with Blacksburg Police Department

• Also work closely with Christiansburg Police Department, Montgomery County Sheriff’s Department, and Virginia State Police, as well as local EMS and Fire Departments

• Examples:
  • Joint Training Exercises
  • Host trainings for regional partners, even those external to law enforcement
Accreditation

**Commission on Accreditation for Law Enforcement Agencies (CALEA)**

Accredited agencies must comply with 489 professional standards each year.

Total law enforcement agencies in the US: Approx. 18,000

Total accredited by CALEA: 933 (5%)

Total campus law enforcement agencies in the US accredited by CALEA: 78 (8% of total accredited)

VTPD was awarded CALEA’s highest accreditation in 2015, 1 of only 13 university law enforcement agencies in the US with this accreditation:

“Accredited with Excellence”

**International Association of Campus Law Enforcement Administrators (IACLEA)**

Accredited agencies must comply with 489 CALEA professional standards each year as well as 9 additional standards unique to campus law enforcement.

Total IACLEA member campus law enforcement agencies (US and overseas): 1,200

Total accredited by IACLEA: 69 (6%)

Virginia Tech Police Department received its first IACLEA accreditation in 2010.
### Violent Crime Comparison: ACC and Similar-Sized Virginia Institutions

<table>
<thead>
<tr>
<th>RANKING (most to fewest)</th>
<th>RAPE 2014</th>
<th>RAPE 2015</th>
<th>RAPE 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UVA: 44</td>
<td>BC: 23</td>
<td>NCST: 32</td>
</tr>
<tr>
<td>2</td>
<td>UNC: 27</td>
<td>UNC: 20</td>
<td>BC: 29</td>
</tr>
<tr>
<td>3</td>
<td>BC: 22</td>
<td>PITT: 17</td>
<td>SYR: 25</td>
</tr>
<tr>
<td>4</td>
<td>PITT: 21</td>
<td>SYR: 17</td>
<td>GM: 20</td>
</tr>
<tr>
<td>5</td>
<td>GT: 19</td>
<td>CLEM: 13</td>
<td>UNC: 22</td>
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<tr>
<td>6</td>
<td>ND: 15</td>
<td>DUK: 13</td>
<td>GM: 20</td>
</tr>
<tr>
<td>7</td>
<td>CLEM: 12</td>
<td>GM: 13</td>
<td>DUK: 17</td>
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<tr>
<td>8</td>
<td>DUKE: 11</td>
<td>ND: 12</td>
<td>UVA: 15</td>
</tr>
<tr>
<td>9</td>
<td>GM: 11</td>
<td>FSU: 11</td>
<td>PITT: 13</td>
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<tr>
<td>10</td>
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**KEY:**
- BC: Boston College
- CLEM: Clemson
- DUKE: Duke
- FSU: Florida State
- GM: George Mason
- GT: Georgia Tech
- MIA: Miami
- NC: North Carolina
- NCST: North Carolina State
- ND: Notre Dame
- PITT: Pittsburgh
- SYR: Syracuse
- VCU: Virginia Commonwealth
- UVA: University of Virginia
- VT: Virginia Tech

*Note: Wake Forest was excluded due to significantly smaller enrollment and Louisville was excluded as their 2016 data is not yet available.*
~30% of the total crimes happen on the Northside (primarily academic region)

~70% of the total crimes happen on the Southside (primarily residential & Athletics region)
Virginia Tech Police Department

Total calls for service 2016: 13,090
Total calls for service thru August 2017: 12,510

Total Safe Ride passengers 2016: 2,152
Total Safe Ride passengers thru August 2017: 2,212

Virginia Tech Rescue Squad

Total VTRS call outs for 2016: 913
Total VTRS call outs to thru August 2017: 541
Community Policing

- Rape Aggression Defense (RAD – for women)
- Resist Aggression Defense (RAD – for men)
- Student Police Academy (Staff/Faculty P.A.)
- No Hokie Left Behind
- Buffet with the Blue
- Residence Life Resource Officer program (ROLO)

Number of events in 2016: 223 (approx. 18,008 participants)

Number of events through August 2017: 160 (approx. 12,535 participants)
Campus Safety and Preparedness
Kevin Foust
Chief of Police

- Mercer County Sheriff’s Office (1984-1987)
- Federal Bureau of Investigation (1987-2011)
- Virginia Tech Police Department (2011-present)

Graduate of:
- Grove City College — B.A. Political Science & B.A. Communication Arts
- Pennsylvania Deputy Sheriff’s Training Academy
- FBI New Agent’s Class 87-5
- FBI Executive Leadership Institute
- Kellogg School of Management, Northwestern Univ.

Memberships:
- Virginia Association of Campus Law Enforcement Administrators, Executive Board, 2013-2017
- Cardinal Criminal Justice Academy, Board of Directors, 2014-present
- Governor of Virginia’s Alcohol Beverage Control Expert Review Panel
- Governor of Virginia’s Joint Task Force to Reduce Gun Crime in Virginia
- Former Adjunct Faculty at Roanoke College

Michael J. Mulhare, PE
Assistant Vice President, Emergency Management

- Rhode Island Department of Environmental Management (1985–2008)
  - Variety of experience including:
    - Emergency Management and Response,
    - Regulatory and compliance programs,
    - Hazardous materials management,
    - Site remediation, groundwater restoration, etc.
- Virginia Tech Emergency Management (2008-present)

Graduate of:
- University of Rhode Island — M.S. Civil & Environmental Engineering
- Saint Joseph’s College, Maine — B.A. Biology
- Harvard Institute for Higher Education; Crisis Leadership in Higher Education

Memberships:
- Virginia Emergency Management Association (VEMA) Board
- Virginia Department of Emergency Management Continuity of Operations Work Group
- Several U.S. Coast Guard Safety/Security Committees
  - Received a Public Service Commendation from USCG
- Registered Professional Engineer

Invited speaker at campuses and localities across the country to share Virginia Tech’s model for Emergency Management, which he was instrumental in developing.
Virginia Tech Emergency Management

Who We Are

• Established in 2008
• Nationally recognized program
• First Institution of Higher Education to receive accreditation

Mission; Build, Sustain, and Improve:

• University resiliency
• Departmental readiness
• Individual preparedness
University Safety and Security Policy Committee
- Reviews, evaluates, and determines requirements for safety, security and preparedness programs

Immediate Response Team
- Provides senior leadership support to the President during an emergency
- In an emergency, establishes policy, sets BIG objectives, leans forward

Incident Management Team
- University decision makers
- Coordinate response operations
- Provides communication support
- Transition to NIMS/ICS structure when required

Emergency Operations Center
- Activated for both incidents and events
University Resiliency; Crisis Emergency Management Plan

- Quadrennial review by the BOV
- All Hazard Plan
- Base Plan and Supporting Annexes
- Identifies operational responsibilities
Over 54,000 Subscribers

Emergency Notification Protocol:
• Establishes operational framework

VT Alert message criteria:
• What happened,
• Where it happened, and
• What action to be taken.

Alert Channels
• Virginia Tech homepage
• 584 message boards
• Campus Sirens and Loud speakers
• Virginia Tech (@vt.edu) emails
• Text message
• Phone
• Non VT email
• Desktop Alerts
• Social media-Twitter (@vtalerts)
• Building Annunciators
University Resiliency; Training and Exercises

~6900 faculty, staff and students participated in emergency preparedness training including:

- Campus Community Emergency Response Team (C-CERT)
- Safety, Security and Preparedness
- Building Emergency Coordinator
- Incident Command System

~450 faculty and staff participated in 17 exercises designed to:

- Reinforce a culture of preparedness on campus
- Identify areas for improvement in departmental and university-wide plans, protocol, and procedures
Objective — Ensure continued performance of departmental functions

217 Departmental Plans

New web portal to improve program oversight, access and ease of departmental revisions
Emergency Action Plans
• What to do in an Emergency
• Department/Building Specific
• 199 Department plans

Building Coordinator Program
• 200 Building Emergency Coordinators (BECs)
• 173 Alternate Building Emergency Coordinators (ABECs)
• Floor Wardens
Individual Preparedness; Campus Engagement

Encourages campus to “Be Hokie Ready” by:

- Participating in campus events
- Attending student and employee orientations
- Presenting to departments and student groups
- Publishing public information and guides
- Relating to your audience
Individual Preparedness; SAFE-T PREP

Student Awareness For Emergencies Through Peer Resilience-Education Programs

- Provides the student perspective and ideas for improving the EM preparedness program message
- Peer to peer engagement
- 2016 SAFE-T PREP student survey results:
  - 80 percent surveyed felt prepared off campus,
  - 90 percent surveyed felt prepared on campus and
  - 95 percent subscribe to VT Alerts
Individual Preparedness Information

SECURE-IN-PLACE

WHAT TO DO IF A SECURE-IN-PLACE ALERT IS ISSUED WHILE ON A BT BUS

1. BT operators will make an announcement that a secure-in-place alert has been issued.
2. Remain calm. Be cautious and aware of your surroundings.
3. Do not get off the bus unless instructed to do so by the BT operator or emergency personnel.
4. The transit service will board all passengers at the current stop and then leave campus. No other on-campus stops will be made.
5. The transit service will proceed to the next scheduled off-campus transit stop or designated holding location.
6. Passengers will be able to exit. Transit service will be suspended until the secure-in-place event has cleared.

Find a safe location, away from the danger, and lock your doors.

FACULTY PREPAREDNESS

STUDENT PREPAREDNESS

MANAGING A COMMUNITY CRISIS: THE ROLE OF COMMUNITY PARTNERSHIPS

IN THE BOX:

- Coordinate with local law enforcement, emergency management, and community partners.
- Provide information and resources to community members.
- Communicate updates and guidance to the public.

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FACULTY PREPAREDNESS

STUDENT PREPAREDNESS
Campus Safety, Security, and Preparedness presentations included in on boarding of new employees and incoming student orientation:

- Campus emergency partners
- VT Alerts and Emergency Notification Channels
- Secure-in-Place
- Shelter-in-Place
- Active Shooter
- Building Fire/Evacuation
- Personal Preparedness
- **EMERGENCY QUICK REFERENCE**: Guides for how to act in emergency situations ("Just in Time Information"), embedded in app and can be accessed without internet connection.
- **CONTACT VTPD DISPATCH**: Send tips to dispatch (if it is an emergency, call 911).
- **EMERGENCY BLUE-LIGHT CALLBOX**: Displays the location of emergency callboxes on campus. Using GPS technology, displays the location and directions of emergency callboxes on campus.
- **SAFEWALK**: Uses GPS technology to allow friends to watch each other get around safely.
- **BUILDING LOCATIONS**: Displays a list of Virginia Tech buildings, their location, and provides directions.
Following the Board of Visitors approval in September, Authority leadership determined that additional clarifications were required in the Resolution and proposed legislation amendment. The changes clarify that all participating agencies must approve the funding formula proposed by the Authority’s Board of Directors before such formula is implemented.
WHEREAS, the Virginia General Assembly enacted the New River Valley Emergency Communications Regional Authority Act, effective July 1, 2010 ("the Act"), enabling the County of Montgomery, the Town of Blacksburg, the Town of Christiansburg and Virginia Polytechnic Institute and State University to form a regional authority to provide the core responsibilities for governance of a consolidated public safety communications center with regional interoperable communications; and

WHEREAS, the governing bodies of the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University, by Resolution, approved, executed and delivered a Memorandum of Understanding supporting the formation of the New River Valley Emergency Communications Regional Authority (the "Authority") to provide 911 dispatch and emergency communications services for the people of Montgomery County and for Virginia Polytechnic Institute and State University’s Blacksburg campus; and

WHEREAS, the Authority was properly formed in 2010 and has successfully operated dispatch services for over one (1) year; and

WHEREAS, the Virginia Polytechnic Institute and State University (”Virginia Tech”) Board of Visitors at its September 11, 2017 meeting approved a similar Resolution supporting amendment of the Act prior to the Authority’s determination that additional clarifications were needed; and

WHEREAS, the Authority plans to develop a funding formula for the allocation each year of its Annual Budget (the “Allocation Formula”) in Annual Contributions to be allocated among the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and payable quarterly to the Authority, subject, however, to the approval in advance of the Allocation Formula or any amendment or revision to the Allocation Formula by the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and further subject in each year to appropriation; and

WHEREAS, the Authority has suggested that certain amendments be made to the Act permitting the implementation of the Allocation Formula, its approval in advance by the Town of Blacksburg, the Town of Christiansburg, the County of Montgomery and the Board of Visitors for Virginia Polytechnic Institute and State University and the allocation of Annual Contributions to the Authority’s Annual Budget; and
WHEREAS, an updated copy of “Amendment of Chapter 638 of the 2010 Virginia Acts of Assembly (the “Act”) relating to the New River Valley Emergency Communications Regional Authority” (the “Amendment to the Act”) setting out the proposed amendments to the Act is attached as an exhibit;

NOW, THEREFORE, BE IT RESOLVED, that the Virginia Tech Board of Visitors hereby approves the proposed Amendment to the Act and authorizes and directs the Authority to submit the same for approval by the Virginia General Assembly at its 2018 legislative session.

RECOMMENDATION:

That the above amended resolution supporting the amendment of the Act to permit implementation of an Allocation Formula and Annual Contributions to the Authority’s Annual Budget be approved.

November 5, 2017
An Act to create Amendment of Chapter 638 of the 2010 Virginia Acts of Assembly (the “Act”) relating to the New River Valley Emergency Communications Regional Authority.

Approved April 11, 2010, 2018

Be it enacted by the General Assembly of Virginia hereby amends Chapter 638 of the 2010 Virginia Acts of Assembly by amending the Act as follows:

1. § 1. Title.
   This Act shall be known and may be cited as the New River Valley Emergency Communications Regional Authority Act.

2. Creation; public purpose.
   If the governing bodies of the Towns of Blacksburg and Christiansburg, the County of Montgomery, and the Board of Visitors for Virginia Polytechnic Institute and State University (Virginia Tech) by resolution support the formation of a regional authority to provide 911 dispatch and emergency communications services to the people of each jurisdiction and campus, an authority known as the New River Valley Emergency Communications Regional Authority Act (hereinafter the Authority) shall thereupon exist for such participating entities and shall exercise its powers and functions as prescribed herein.

   In any suit, action, or proceeding relating to or involving the validity or enforcement of any contract of the Authority, the Authority shall be deemed to have been created as a political subdivision and body corporate and to have been established and authorized to transact business and exercise its powers hereunder upon proof of the adoption of a resolution as aforesaid by the governing bodies of such towns, county, and university supporting the formation of such Authority. A copy of such resolution duly certified by the clerk or secretary of the governing body of the towns, county, and university by which it is adopted shall be admissible as evidence in any suit, action, or proceedings. Any political subdivision of the Commonwealth is authorized to join such Authority pursuant to the terms and conditions of this Act.

   The ownership and operation by the Authority of emergency communications services and the exercise of powers conferred by this Act are proper and essential governmental functions and public purposes and matters of public necessity for which public moneys may be spent and private property acquired through the power of eminent domain as hereinafter provided. The purposes of such Authority shall be to develop a consolidated system for the receipt of and response to 911 emergency calls and communications that will improve response time, quality of service, and coordination of available resources for the citizens of the affected localities.

   The Authority and its members, officers, employees, and agents shall all enjoy sovereign immunity for torts committed in exercise of its governmental and proprietary functions. Nothing in this Act shall be construed as a waiver of the sovereign immunity enjoyed by any of the participating political subdivisions.

   The courts of the Commonwealth of Virginia shall have original jurisdiction of all actions brought by or against the Authority, which courts shall in all cases apply the law of the Commonwealth of Virginia.

3. Definitions.
   As used in this act, the following words and terms have the following meanings unless a different meaning clearly appears from the context:

   "Act" means the New River Valley Emergency Communications Regional Authority Act.

   "Annual deficitBudget" means the amount of budgeted expenditures in excess of anticipated revenues for each fiscal year for the payment of operations or capital budgets.

   "Annual Contribution" means the portion of the Annual Budget attributable to each Participating Political Subdivision each fiscal year.

   "Authority" means the New River Valley Emergency Communications Regional Authority created by this Act.

   "Board" means the governing body of the Authority.

   "Bonds" means any bonds, notes, debentures, grant obligations, or other evidence of financial indebtedness issued by this Authority pursuant to this Act.

   "Commonwealth" means the Commonwealth of Virginia.
"Facility" means any and all buildings, structures, or facilities purchased, constructed, or otherwise acquired or operated by the Authority pursuant to the provisions of this Act. Any facility may consist of or include any or all buildings or other structures, improvements, additions, extensions, replacements, machinery, or equipment, together with appurtenances, lands, rights in land, water rights, franchises, furnishings, landscaping, utilities, roadways, or other facilities necessary or desirable in connection therewith or incidental thereto.

"Participating political subdivisions" means the Towns of Blacksburg and Christiansburg, the County of Montgomery, and Virginia Polytechnic Institute and State University or any other political subdivision that may join or has joined the Authority pursuant to §§ 4 and 5 of this Act.

"Political subdivision" means a county, city, town, public body, public authority, institution (including an institution of higher education), or commission of the Commonwealth.

"University" means Virginia Polytechnic Institute and State University.

§ 4 Participating political subdivision.

At the time of creation of the Authority, each participating political subdivision shall have entered or shall enter into a memorandum of understanding by and among each of the participating political subdivisions setting forth the terms and conditions of the intended formation of the Authority.

No pecuniary liability of any kind shall be imposed upon any participating political subdivision because of any act, omission, agreement, contract, tort, malfeasance, misfeasance, or nonfeasance by or on the part of the Authority or any member thereof, or its agents, servants, or employees, except as otherwise provided in this Act with respect to contracts and agreements between the Authority and any other political subdivision.

§ 5 Joinder.

Membership in the Authority may be expanded only in accordance with the terms of a joinder agreement adopted by the governing bodies of all participating political subdivisions. Only another political subdivision may become a participating political subdivision of the Authority. The governing body of any locality wishing to become a member of the Authority shall by concurrent resolutions or ordinances and by agreement provide for the joinder of such locality. The agreement creating the expanded Authority shall specify the number and terms of office of members of the Board of the expanded Authority that are to be appointed by each of the participating political subdivisions and the names, addresses, and terms of office of initial appointments to Board membership.

§ 6 Appointment of members of the Board.

The powers of the Authority shall be vested in the members of the Board. The Board shall consist of five persons. Each participating political subdivision shall have the right to appoint one member of the Board and all participating political subdivisions shall jointly appoint the fifth member of the Board by unanimous approval of the participating political subdivisions. Each member of the Board shall be appointed for a term of four years, except that the initial members of the Board representing the participating political subdivisions shall be appointed for the following staggered terms to be selected by lot by the members of the Board at its initial meeting: one member shall be appointed for a term of one year; one member shall be appointed for a term of two years; one member shall be appointed for a term of three years; and one member shall be appointed for a term of four years. The jointly appointed member shall be appointed for an initial term of four years. Upon the expiration of the original term of office of a member of the Board, that member may continue to exercise all powers as a member of the Board until that person's successor is duly appointed and qualified.

Any vacancy in the membership of the Board other than by expiration of term shall be filled by the governing body that appointed the member or, in the case of the jointly appointed member, by approval of the governing bodies. The person appointed to fill such vacancy shall serve for the unexpired term only. Each participating political subdivision shall have the absolute right to remove its appointee to the Board, with or without cause, at any time. The participating political subdivisions shall have the absolute right to remove their joint appointee to the Board, with or without cause, at any time by resolution adopted by a majority of the governing bodies of the participating political subdivisions. Except as may be prohibited by the Constitution of Virginia, members of the Board may include elected or appointed officials, employees, managers, administrators, or officers of any participating political subdivision.

Each member of the Board may be reimbursed by the Authority for the amount of actual expenses incurred by him in the performance of his duties in addition to such other salary or benefit, or both, to be determined by the Authority.

§ 7 Organization.

A majority of the members of the Board shall constitute a quorum, and the vote of a majority of members of the Board shall be necessary for any action taken by the Board. Each member of the Board shall be entitled to one vote except as otherwise set forth herein. No vacancy in the membership of the Board shall impair the right of a quorum to exercise all the rights and perform all the duties of the Authority. The Board shall elect from its membership a chairman, vice-chairman, and secretary-
treasurer of the Board, such officers to serve in these capacities for terms of two years, except that an initial member of the Board whose term on the Board is for one year may be elected to serve in such capacity for a term of one year and if reappointed to the Board may thereupon be reelected to the Board to serve in such capacity.

The Authority shall hold regular meetings at such times and places as may be established by its bylaws.

The Board may make and from time to time amend and repeal bylaws, not inconsistent with this Act, governing the manner in which the Authority's business may be transacted and in which the power granted to it may be enjoyed. The Board may appoint such committees as it may deem advisable and fix the duties and responsibilities of such committees.


The Authority is hereby granted all powers necessary or appropriate to carry out the purposes of this Act, including the powers to:

1. Adopt bylaws for the regulation of its affairs and the conduct of its business;
2. Sue and be sued in its own name;
3. Have perpetual succession;
4. Adopt a corporate seal and alter the same;
5. Maintain offices at such places as it may designate;
6. Acquire, establish, construct, enlarge, improve, maintain, equip, operate, and regulate any structures, facilities, and other property incidental thereto;
7. Construct, renovate, install, maintain, and operate facilities for the location of dispatching services, necessary equipment, and administration space;
8. Apply for and accept gifts, grants of money, grants or loans of other property, or other financial assistance from, or borrow money from or issue bonds to, the United States of America and agencies and instrumentalities thereof; the Commonwealth and political subdivisions, agencies, and instrumentalities thereof; or any other person or entity, whether public or private, for or in aid of the construction, acquisition, ownership, operation, maintenance, or repair of the Authority's facilities (whether or not such facilities are then in existence) or for the payment of the principal of any indebtedness of the Authority; interest thereon, or other costs incident thereto and to borrow money on such terms as the Authority deems advisable. To this end the Authority shall have the power to render such services, comply with such conditions, and execute such agreements and legal instruments as may be necessary, convenient, or desirable or imposed as a condition to such financial aid, loads, grants, or other assistance;
9. Appoint, employ, or engage such officers, employees, architects, engineers, attorneys, accountants, financial advisors, investment bankers, and other advisors, consultants, and agents as may be necessary or appropriate and fix their duties and compensation;
10. Establish personnel rules;
11. Own, purchase; lease; obtain options upon; acquire by gift, grant, or bequest; or otherwise acquire any property, real, personal or intangible, or any interest therein, and in connection therewith to create, assume, or take subject to any indebtedness secured by such property;
12. Sell, lease, grant options upon, exchange, transfer, assign, or otherwise dispose of any property, real or personal, or any interest therein;
13. Make, assume, and enter into all contracts, leases, and arrangements necessary or incidental to the exercise of its powers, including contracts for the management or operation of all or any part of its facilities;
14. Adopt, amend, and repeal rules and regulations for the use, maintenance, and operation of its facilities and governing the conduct of persons and organizations using its facilities and to enforce such rules and regulations and all other rules, regulations, ordinances, and statutes relating to its facilities;
15. Purchase and maintain insurance and provide indemnification on behalf of any person who is or was a director, officer, employee, or agent of the Authority against any liability asserted against or incurred by him in any such capacity or arising out of his status as such;
16. Place a lien upon any or all of its property or otherwise secure its debts; and
17. Do all things necessary or convenient to the purposes of this Act.

§ 9. Rules, regulations, and minimum standards.

The Authority shall have the power to adopt, amend, and repeal rules, regulations, and minimum standards for the use, maintenance, and operation of its facilities and governing the conduct of persons and organizations using its facilities.

The Authority's rules and regulations shall be available for public inspection in the Authority's principal office.

The Authority's rules and regulations shall have the force of law, as shall any other rule or regulation of the Authority that shall contain a determination by the Authority that it is necessary to accord the same force and effect of law in the interest of the public safety.
§ 10. Reports.
The Authority shall keep minutes of its proceedings, which shall be open to public inspection during normal business hours. It shall keep suitable records of all its financial transactions and shall arrange to have the same audited annually by an independent certified public accountant. Copies of each such audit shall be furnished to each participating political subdivision and shall be open to public inspection. The Authority shall be deemed a local governmental agency subject to the requirements of the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq.) of the Code of Virginia.

§ 11. Procurement.
All contracts that the Authority may let for professional services, nonprofessional services, or materials shall be subject to the Virginia Public Procurement Act (§ 2.2-4300 et seq.) of the Code of Virginia.

§ 12. Deposit and investment of funds.
Except as provided by contract with a participating political subdivision, all moneys received pursuant to the authority of this Act, whether as proceeds from the sale of bonds or as revenues or otherwise, shall be deemed to be trust funds to be held and applied solely as provided in this Act. All moneys of the Authority shall be deposited in a qualified public depository and secured in accordance with the Virginia Security for Public Deposits Act (§ 2.2-4400 et seq.) of the Code of Virginia.

Funds of the Authority not needed for immediate use or disbursement may, subject to the provisions of any contract between the Authority and the holders of its bonds, be invested in securities that are considered lawful investments for public sinking funds or other public funds as set forth in the Investment of Public Funds Act (§ 2.2-4500 et seq.) of the Code of Virginia.

§ 13. Authority to issue bonds.
The Authority shall have the power to issue bonds in its discretion, for any of its purposes, including the payment of all or any part of the cost of Authority facilities and including the payment or retirement of bonds previously issued by it. The Authority may issue such types of bonds as it may determine, including (without limiting the generality of the foregoing) bonds payable, both as to principal and interest (i) from its revenues and receipts generally and (ii) exclusively from the revenues and receipts of certain designated facilities or loans, whether or not they are financed in whole or in part from the proceeds of such bonds. Any such bonds may be additionally secured by a pledge of any grant or contribution from a participating political subdivision, the Commonwealth, or any political subdivision, agency, or instrumentality thereof; any federal agency; or any unit, private corporation, copartnership, association, or individual as such participating political subdivision or other entities may be authorized to make under general law or by pledge of any income or revenues of the Authority or by mortgage or encumbrance of any property or facilities of the Authority. Unless otherwise provided in the proceeding authorizing the issuance of the bonds or in the trust indenture or agreement securing the same, all bonds shall be payable solely and exclusively from the revenues and receipts of a particular facility or loan. Bonds may be executed and delivered by the Authority at any time and from time to time, may be in such form and denominations and of such terms and maturities, may be in registered or bearer form either as to principal or interest or both, may be payable in such installments and at such time or times not exceeding 40 years from the date thereof, may be payable at such place or places whether within or without the Commonwealth, may bear interest at such rate or rates, may be payable at such time or times and at such places, may be evidenced in such manner, and may contain such provisions not inconsistent herewith, all as shall be provided and specified by the Authority in authorizing each particular bond issue.

If deemed advisable by the Authority, there may be retained in the proceedings under which any bonds of the Authority are authorized to be issued an option to redeem all or any part thereof as may be specified in such proceedings, at such price or prices and after such notice or notices and on such terms and conditions as may be set forth in such proceedings and as may be briefly recited on the face of the bonds, but nothing herein contained shall be construed to confer on the Authority any right or option to redeem any bonds except as may be provided in the proceedings under which they shall be issued. Any bonds of the Authority may be sold at public or private sale in such manner and from time to time as may be determined by the Authority to be most advantageous and the Authority may pay all costs, premiums, and commissions that it may deem necessary or advantageous in connection with the issuance thereof. Issuance by the Authority of one or more series of bonds for one or more purposes shall not preclude it from issuing other bonds in connection with the same facility or any other facility, but the proceedings thereunder any subsequent bonds may be issued shall recognize and protect any prior pledge or mortgage made for any prior issue of bonds. Any bonds of the Authority at any time outstanding may from time to time be refunded by the Authority by the issuance of its refunding bonds in such amount as the Authority may deem necessary, but not exceeding an amount sufficient to refund the principal of the bonds so to be refunded, together with any unpaid interest thereon and any costs, premiums, or commissions necessary to be paid in connection therewith. Any such refunding may be
effected whether the bonds to be refunded shall have then matured or shall thereafter mature, either by sale of the refunding bonds and the application of the proceeds thereof to the payment of the bonds to be refunded thereby, or by the exchange of the refunding bonds for the bonds to be refunded thereby, with the consent of the holders of the bonds so to be refunded, and regardless of whether or not the bonds to be refunded were issued in connection with the same facilities or separate facilities, and regardless of whether or not the bonds proposed to be refunded shall be payable on the same date or on different dates or shall be due serially or otherwise.

All bonds shall be signed by the chairman or vice-chairman of the Authority or shall bear his facsimile signature, and the corporate seal of the Authority or a facsimile thereof shall be impressed or imprinted thereon and attested by the signature of the secretary (or the secretary-treasurer) or the assistant secretary (or assistant secretary-treasurer) of the Authority or shall bear his facsimile signature, and any coupons attached thereto shall bear the facsimile signature of said chairman. In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be an officer before delivery of such bonds, such signature, or such facsimile, shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery. When the signatures of both the chairman or the vice-chairman and the secretary (or secretary-treasurer) or the assistant secretary (or the assistant secretary-treasurer) are facsimiles, the bonds must be authenticated by a corporate trustee or other authenticating agent approved by the Authority.

If the proceeds derived from a particular bond issue, due to error of estimates or otherwise, shall be less than the cost of the Authority facilities for which such bonds were issued, additional bonds may in like manner be issued to provide the amount of such deficit, and unless otherwise provided in the proceedings authorizing the issuance of the bonds of such issue or in the trust indenture securing the same, shall be deemed to be of the same issue and shall be entitled to payment from the same fund without preference or priority of the bonds of the first issue. If the proceeds of the bonds of any issue shall except such cost, the surplus may be deposited to the credit of the sinking fund for such bonds or may be applied to the payment of the cost of any additions, improvements, or enlargements of the Authority facilities for which such bonds shall have been issued.

Prior to the preparation of definitive bonds, the Authority may, under like restrictions, issue interim receipts or temporary bonds with or without coupons, exchangeable for definitive bonds when such bonds shall have been executed and are available for delivery. The Authority may also provide for the replacement of any bonds that shall become mutilated or shall be destroyed or lost. Bonds may be issued under the provisions of this Act without obtaining the consent of any department, division, commission, board, bureau, or agency of the Commonwealth, and without any other proceedings or the happening of any other conditions or things other than those proceedings, conditions, or things that are specifically required by this Act; provided that nothing contained in this Act shall be construed as affecting the powers and duties now conferred by law upon the State Corporation Commission.

All bonds issued under the provisions of this Act shall have and are hereby declared to have all the qualities and incidents of and shall be and are hereby made negotiable instruments under the Uniform Commercial Code (§ 8.1A-101 et seq.) of the Code of Virginia, subject only to provisions respecting registration of the bonds.

In addition to all other powers granted to the Authority by this Act, the Authority is authorized to provide for the issuance from time to time of notes or other obligations of the Authority for any of its authorized purposes. All of the provisions of this Act that relate to bonds shall apply to such notes or other obligations insofar as such provisions may be appropriate.

§ 14 Credit of Commonwealth and political subdivisions not pledged.

Bonds issued pursuant to the provisions of this Act shall not be deemed to constitute a debt of the Commonwealth or any political subdivision thereof other than the Authority, but such bonds shall be payable solely from the funds provided therefore as herein authorized. All such bonds shall contain on the face thereof a statement to the effect that neither the Commonwealth, nor any political subdivision thereof, nor the Authority, except as may be otherwise stated, shall be obligated to pay the same or the interest thereon or other costs incident thereto except from the revenues and money pledged therefore and that neither the faith and credit nor the taxing power of the Commonwealth, nor any political subdivision thereof, is pledged to the payment of the principal of such bonds or the interest thereon or other costs incident thereto.

Bonds issued pursuant to the provisions of this Act shall not constitute indebtedness within the meaning of any debt limitation or restriction.

§ 15 Members of the Board and persons executing bonds not liable thereon.

Neither the members of the Board nor any person executing the bonds shall be liable personally on the Authority's bonds by reasons of the issuance thereof.

§ 16 Security for payment of bonds; default.
The principal of and interest on any bonds issued by the Authority may be secured by a pledge of the revenues and receipts out of which the same shall be made payable, and may be secured by a trust indenture or agreement covering all or any part of the Authority facilities from which revenues or receipts so pledged may be derived, including any enlargements or any additions to any such projects thereafter made. The resolution under which the bonds are authorized to be issued and any such trust indenture or agreement may contain any agreements and provisions respecting the maintenance of the projects covered thereby, the fixing and collection of rents for any portions thereof leased by the Authority to others, the creation and maintenance of special funds from such revenues, and the rights and remedies available in the event of default, all as the Authority shall deem advisable not in conflict with the provisions hereof. Each pledge, agreement, and trust indenture made for the benefit or security of any of the bonds of the Authority shall continue to be effective until the principal of and interest on the bonds for the benefit of which the same were made shall have been fully paid. In the event of default in such payment or in any agreements of the Authority made as a part of the contract under which the bonds were issued, whether contained in the proceeding authorizing the bonds or in any trust indenture or agreement executed as security therefor, may be enforced by mandamus, suit, action, or proceeding at law or in equity to compel the Authority and the members, officers, agents, or employees thereof to perform each and every term, provision, and covenant contained in any trust indenture or agreement of the Authority, the appointment of a receiver in equity, or by foreclosure of any such trust indenture, or any one or more of said remedies.

§ 17 Taxation.

The exercise of the powers granted by this Act shall in all respects be presumed to be for the benefit of the inhabitants of the Commonwealth, for the increase of their commerce, and for the promotion of their health, safety, welfare, convenience, and prosperity, and as the operation and maintenance of any project that the Authority is authorized to undertake will constitute the performance of an essential governmental function, the Authority shall not be required to pay any taxes or assessments upon any facilities acquired and constructed by it under the provisions of this Act and the bonds issued under the provisions of this Act, their transfer and the income therefrom, including any profit made on the same thereof, shall at all times be free and exempt from taxation by the Commonwealth and by any political subdivision thereof.

§ 18 Bonds as legal investments.

Bonds issued by the Authority under the provisions of this Act are hereby made securities in which all public officers and public bodies of the Commonwealth and its political subdivisions, all insurance companies, trust companies, banking associations, investment companies, executors, administrators, trustees, and other fiduciaries may properly and legally invest funds, including capital in their control or belonging to them. Such bonds are hereby made securities that may properly and legally be deposited with and received by any state or municipal officer or any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations is now or may hereafter be authorized by law.

§ 19 Appropriation by political subdivision.

Any participating political subdivision or other political subdivision of the Commonwealth is authorized to provide services, to donate real or personal property, and to make appropriations to the Authority for the acquisition, construction, maintenance, and operation of the Authority's facilities. Any such political subdivision is hereby authorized to issue its bonds, including, but not limited to, general obligation bonds, in the manner provided in the Public Finance Act (§ 15.2-2600 et seq.) of the Code of Virginia or in any applicable municipal charter for the purpose of providing funds to be appropriated to the Authority, and such political subdivisions may enter into contracts obligating such bond proceeds to the Authority.

The Authority may agree to assume or reimburse a participating political subdivision for any indebtedness incurred by such participating political subdivision with respect to facilities conveyed by it to the Authority.

§ 20 Annual Budget.

The Board shall have full authority to adopt its operating and capital budgets on an annual fiscal year (July 1 through June 30) basis (the “Annual Budget”), and to amend the same from time to time. The Board shall also have full authority to develop and adopt a formula for allocating the responsibility to pay for the Annual Budget among the participating political subdivisions (the “Allocation Formula”), which Allocation Formula must be presented to the participating political subdivisions on or before February 1, 2019. The participating political subdivisions shall consider the Allocation Formula on or before May 1, 2019, and if each of them approve it, each shall pay its share of the Annual Budget as allocated under the Allocation Formula. In the event all participating political subdivisions do not approve the Allocation Formula on or before July 1, 2019, each participating political subdivision will contribute one-quarter of the Authority’s Annual Budget for fiscal year 2019 and for all following fiscal years unless and until an Allocation Formula is approved.
by all of the participating political subdivisions. As used herein, “Annual Contribution” means either:
(a) each participating political subdivision’s share of the Annual Budget allocated under the Allocation Formula or (b) the one-quarter share of the Annual Budget that each of the participating political subdivisions will pay if not all of the participating political subdivisions have on or before July 1, 2019 (or July 1 in any year in which the Allocation Formula is presented for approval by the participating political subdivisions). Once approved by all of the participating political subdivisions, the Board may use the Allocation Formula each year to allocate responsibility for payment of the Annual Budget among the participating political subdivisions. The Board shall also have full authority to amend and revise the Allocation Formula, but any amendment or revision must be submitted to and approved by each of the participating political subdivisions on the same dates prior to the fiscal year in which the Allocation Formula is scheduled to be amended or revised. Each participating political subdivision shall contribute its respective one-quarter share of the annual deficit Annual Contribution each year — and otherwise as required; however, such obligation shall be subject to and dependent upon annual appropriations being made from time to time by the governing body of each such respective participating political subdivision, and as to the university by normal approval of appropriations, and shall not be deemed to constitute a debt of such participating political subdivisions within the meaning of Article VII, Section 10 of the Constitution of Virginia, and as to the university, within the meaning of Article X, Section 9 of the Constitution of Virginia, or any applicable statutory debt limitation. Should any participating political subdivision fail to contribute in full its proportionate share of the annual deficit Annual Contribution, it shall remain a member of the Authority, but its representative on the Board shall not be entitled to cast a vote on any Authority matter until that participating political subdivision’s share of the annual deficit Annual Contribution has been paid in full. Further, should any participating political subdivision fail to contribute in full its proportionate share of the annual deficit Annual Contribution, the Authority shall have a lien on any share of the Authority’s profit or surplus revenues otherwise entitled to be distributed to the participating political subdivision. A participating political subdivision may contribute a portion or all of its share of the annual deficit Annual Contribution through “in-kind” contributions, subject to the approval of such contribution and valuation by the Authority.

§ 21 Contracts with political subdivisions.

The Authority is authorized to enter into contracts with any one or more political subdivisions.

§ 22 Authority as political subdivision.

The Authority is a political subdivision whose actions are exempt from the Commonwealth’s rules and regulations on its agencies and commissions as to demolition, alteration, capital outlay requirements, temporary building use requirements, and like regulations and requirements. The Authority is subject to local building code requirements.

§ 23 Fees for Service.

The Authority is authorized to charge a fee for service to individuals who are not members of the participating political subdivisions and is, likewise, authorized to determine a fee schedule.

§ 24 Liberal construction.

Neither this Act nor anything herein contained is or shall be construed as a restriction or limitation upon any powers that the Authority might otherwise have under any laws of the Commonwealth, and this Act is cumulative to any such powers; however, the borrowing of money or issuance of bonds under the provisions of this Act need not comply with the requirements of any other law applicable to the issuance of bonds, notes, or other obligations. This Act does and shall be construed to provide a complete, additional, and alternative method for the doing of the things authorized hereby and shall be regarded as supplemental and additional to powers conferred by other laws. The provisions of this Act are severable, and if any of its provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the other provisions of this Act.

§ 25 Application of local ordinances, service charges, and taxes upon leaseholds.

Nothing herein contained shall be construed to exempt the Authority’s property from any applicable zoning, subdivision, erosion and sediment control, and fire prevention codes or from building regulations of a political subdivision in which such property is located. Nor shall anything herein contained exempt the property of the Authority from any service charge authorized by the General Assembly pursuant to Article X, Section 6 (g) of the Constitution of Virginia.

§ 26 Existing contracts. Leases, franchises, etc., not impaired.

No provisions of this Act shall relieve, impair, or affect any right, duty, liability, or obligation arising out of any contract, concession, lease, or franchise now in existence except to the extent that such contract, concession, lease, or franchise may permit. Notwithstanding the foregoing provision of this section, the Authority may renegotiate, renew, extend the term of, or otherwise modify at any time any contract, concession lease, or franchise now in existence in such manner and on such terms and conditions as it may deem appropriate, provided that the operator of or under said contract, concession, lease, or franchise consents to said renegotiation, renewal, extension, or modification.
§ 27 Employees of the Authority.
A. Employees of the Authority shall be employed on such terms and conditions as are established by the Authority. The Board of the Authority shall develop and adopt personnel rules, policies, and procedures to give its employees grievance rights, ensure that the employment decisions shall be based upon the merit and fitness of applicants, and prohibit discrimination because of race, religion, color, sex, or national origin.

B. In cooperation with the Board, each participating political subdivision shall determine which of its current positions will remain under their individual employ and which will be recreated as part of the Authority. Any employee of Virginia Tech who (i) is not offered a position with the Authority for which the employee is qualified or is offered a position that requires relocation or a reduction in salary or (ii) is not offered the opportunity to remain employed with Virginia Tech shall be eligible for the severance benefits conferred by the provisions of the Workforce Transition Act (§ 2.2-3200 et seq.) of the Code of Virginia. Any employee of Virginia Tech who accepts employment with the Authority shall not be considered to be involuntarily separated from state employment and shall not be eligible for the severance benefits conferred by the Workforce Transition Act.

C. Notwithstanding any other provision of law to the contrary, any person whose employment is recreated in the Authority as a result of this Act and who is a member of any plan for providing health insurance coverage pursuant to Chapter 28 (§ 2.2-2818 et seq.) of Title 2.2 of the Code of Virginia shall be eligible to continue to be a member of such health insurance plan. Notwithstanding subsection A of § 2.2-2818 of the Code of Virginia, the Authority shall pay the employer contribution, the amount of which is determined by negotiated agreement with the provider, of the costs of providing health insurance coverage to its employees who elect to continue to be members of the state employees' insurance plan. Alternatively, an employee may elect to become a member of any health insurance plan established by the Authority. The Authority is authorized to (i) establish a health insurance plan for the benefit of its employees and (ii) enter into agreements with the Department of Human Resources Management providing for the coverage of its employees under the state employees' health insurance plan, provided that such agreement shall require the Authority to pay the costs described above of providing health insurance coverage under such a plan.

D. Notwithstanding any other provision of law to the contrary, any person whose employment is transferred to the Authority as a result of this Act and who is a member of the Virginia Retirement System, or other retirement plan as authorized by Article 4 (§ 51.1-125 et seq.) of Chapter 1 of Title 51.1 of the Code of Virginia, shall continue to be a member of the Virginia Retirement System or other such authorized retirement plan under the same terms and conditions as if no transfer had occurred. Alternatively, such employee may elect, during an open enrollment period, to become a member of the retirement program established by the Authority for the benefit of its employees by transferring assets equal to the value to the actuarially determined present value of the accrued basic benefit as of the transfer date. The Authority shall reimburse the Virginia Retirement System for the actual cost of actuarial services necessary to determine the present value of the accrued basic benefit of employees who elect to transfer to the Authority's retirement plan. The following rules shall apply:

1. With respect to any transferred employee who elects to remain a member of the Virginia Retirement System or other such authorized retirement plan, the Authority shall collect and remit any employer and employee contributions to the Virginia Retirement System or other such authorized retirement plan for retirement for such transferred employees.

2. Transferred employees who elect to become members of the retirement program established by the Authority for the benefits of its employees shall be given full credit for their creditable service as defined in § 51.1-124.3 of the Code of Virginia, vesting and benefit accrual under the retirement program established by the Authority. For any such employee, employment with the Authority shall be treated as employment with any nonparticipating employer for purposes of the Virginia Retirement System or other retirement plan as authorized by Article 4 of Chapter 1 of Title 51.1 of the Code of Virginia.

3. For transferred employees who elect to become members of the retirement program established by the Authority, the Virginia Retirement System or other such authorized plan shall transfer to the retirement plan established by the Authority assets equal to the actuarially determined present value of the accrued basic benefits as of the transfer date. For purposes hereof, the basic benefits shall be the benefit accrued under the Virginia Retirement System or other such authorized retirement plan, based on creditable service and average final compensation as defined in § 51.1-124.3 of the Code of Virginia and determined as of the transfer date. The actuarial present value shall be determined on the same basis, using the same actuarial factors and assumptions used in determining the funding needs of the Virginia Retirement System or other such authorized retirement plan, so that the transfer of assets to the retirement plan established by the Authority will have no effect on the funded status and financial stability of the Virginia Retirement System or other such authorized retirement plan.

§ 28 Withdrawal of membership.
A participating political subdivision may withdraw its membership in the Authority at the end of any fiscal year if the withdrawing participating political subdivision has given notice to the Authority and all other participating political subdivisions of its intention to withdraw at least one year before the end of such fiscal year and the withdrawing participating political subdivision has paid in full its share of the annual deficitAnnual Contribution, if any, provided that no participating political subdivision may withdraw its membership in the Authority if the Authority has any outstanding debt without written approval of each participating political subdivision. As used in this section, the term "debt" shall mean a monetary obligation, whether general or limited in any way, to repay a loan or bond, or any long-term obligation, whether absolute or contingent in any way, to refund or reimburse any agency or entity for grant funds received by the Authority.

§ 29 Dissolution of Authority.

Whenever it shall appear to the Board or to all participating political subdivisions that the need for the Authority no longer exists, all participating political subdivisions may petition the Circuit Court of Montgomery County, Virginia, for the dissolution of the Authority. If the court determines that the need for the Authority as set forth in this Act no longer exists and that all debts and other obligations of any kind have been fully paid or provided for:

1. The Court shall enter an order dissolving the Authority; and
2. The remaining assets of the Authority shall be distributed to the participating political subdivisions in proportion to their respective shares of the annual deficitAnnual Contribution less any amounts owed to the Authority by such participating political subdivision.

Each participating political subdivision and all holders of the Authority's bonds shall be made parties to any such proceeding and shall be given notice as provided by law. Any party defendant may reply to such petition at any time within six months after the filing of the petition. An appeal from the final judgment of the court shall lie to the Supreme Court of Virginia.
Design is underway for a project and support facility for the College of Architecture and Urban Studies as well as the College of Engineering. The facility will house assignable space to support initiatives such as the Solar Decathlon, FutureHaus research programming, and Destination Area activities. It is consistent with long-term master plan strategies and may revert to use as a storage space with further development of the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area. The 4,965 gross square foot facility will be sited off of Inventive Lane, to the southeast of the current Thomas M. Murray Structures Lab. This approximately $1.1 million project is set to break ground in February 2018, with occupancy in August of the same year.
Title of Project:
Advanced Design and Construction Facility (ADCF)

Location:
The facility will be sited off of Inventive Lane, to the southeast of the Thomas M. Murray Structures Lab building (Murray Labs). It will be located parallel to the southern loop access behind the Murray Labs.

Current Project Status and Schedule:
The project is currently in schematic design. The project is set to break ground in February 2018, with building construction anticipated in April, and a targeted completion in August of the same year.

Project Description:
The facility serves as a project and storage facility for the College of Architecture and Urban Studies (CAUS) as well as the College of Engineering (COE). It will support work on, and provide storage for, several ongoing initiatives. These include the Solar Decathlon, FutureHaus research programming, and Destination Area activities. While a comparatively small facility, its construction will allow CAUS and COE to augment efforts to promote integrated energy systems, sustainable cities and communities, and health and wellness, among others. As such, this project supports long-term master plan strategies such as the Intelligent Infrastructure for Human-Centered Communities (IIHCC) Destination Area.

Brief Program Description:
The assignable program consists of a single large open space. This configuration will allow for maximum flexibility between potential uses. To allow for vehicular access, this space will feature three 16’x16’ overhead coiling doors. Additionally, current designs provide for a future expansion contingent upon funding availability.

Contextual Issues and Design Intent:
Given its multi-functional nature, the ADCF features a simple, yet flexible design. The building will be constructed almost entirely of metal. Framing will consist of pre-engineered steel, walls of insulated metal, and the roof of insulated metal panel cladding. Floors will be comprised of sealed concrete.

Architect/Engineer:
Dewberry

Construction Manager:
Gilbane
Advanced Design and Construction Facility

Board of Visitors Design Preview / Review
Emergency Procurement - ADCF Support Building
Buildings Destroyed by Fire
Advanced Design and Construction Facility

Project Location

- Virginia-Maryland College of Veterinary Medicine
- Site
- Lane Stadium
- Drillfield
Advanced Design and Construction Facility

Project Information

- New Construction: 4,965 GSF
- Delivery Method: VT Renovations
- Authorized Budget: Approximately $1.1 Million
- Design Phase: Schematic
- Anticipated Occupancy: August 2018
Advanced Design and Construction Facility

Existing Conditions

Thomas M. Murray Structures
Lab

Inventive Lane

Site
Advanced Design and Construction Facility

Site Plan

- Asphalt Driveway
- Gravel Drive
- Inventive Lane
- Parking
- Future Addition
- ADCF Building
- Gravel Turnaround
Advanced Design and Construction Facility

North Elevation

East Elevation

South Elevation

West Elevation

North Elevation

East Elevation

South Elevation

West Elevation

Bay Doors

Metal Roof

Metal Door
Advanced Design and Construction Facility

Recommendation

- That the Design Preview / Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with the anticipated building construction completion in August 2018.
DESIGN REVIEW FOR MULTI-MODAL TRANSIT FACILITY

Working Drawings are underway for new construction of a 13,716 gross square foot facility fronting existing Perry Street in the North Academic District. The project will include 17 covered bus slips in loop configurations to the east, west, and southwest, and will feature sustainable elements. The facility will centralize transit transfers and serve multiple modes of alternative transportation. It will provide amenities for alternative transportation users (including a bike repair hub) and is strategically located along the planned Infinite Loop. The Design-Bid-Build procurement method for the facility and site improvements are funded through federal grants and matching university investment. The project is managed through the Town of Blacksburg. Occupancy is anticipated in the fall of 2020.
Title of Project:
Multi-Modal Transit Facility (MMTF)

Location:
The new transit hub will be located on Perry Street, in the North Academic District, leveraging planned roadway improvements at West Campus Drive and Stanger Street. The new building will be located directly south of the existing Perry Street Parking Garage, fronting existing Perry Street, which will be modified as a pedestrian mall and the center of the planned Infinite Loop. Covered bus ridership access slips will be located in loop configurations to the east, west, and southwest.

Current Project Status and Schedule:
The project is currently two-thirds through the Working Drawings phase of design. Design is anticipated to conclude in winter 2017, with occupancy anticipated in fall 2020.

Project Description:
The project is consistent with the current, ongoing 2017 Master Plan update. It will support the Master Plan goal to relocate the transit hub to the North Academic District, thereby reducing bus traffic on the Drillfield. This effort will ease traffic congestion in this area, contributing to pedestrian and driver safety. In addition, the 13,716 gross square foot, two-story facility will provide amenities for alternative transportation users, facilitate public interface, disseminate information about sustainability and related educational opportunities, and integrate technology to promote alternative transportation.

Brief Program Description:
The MMTF will function as a centralized transit hub and will serve multiple modes of alternative transportation. Programming includes a rider waiting area with information services, bike repair hub, multi-use meeting space, public restrooms, and administrative space for transit operations. Ridership access will include 17 canopied bus slips. Canopied waiting areas include benches, signage, and related amenities.

Contextual Issues and Design Intent:
Primary exterior materials include Hokie Stone, precast concrete, decorative metal spandrel panels, and aluminum-framed curtainwall and operable windows in keeping with nearby buildings. Flat roofs flank a central, prominent entry tower that is the focal point for the main entrance. Bus slip canopies are steel supported and framed with segmented metal roof panels, and incorporate Hokie Stone with
bench seating. The MMTF project has a goal of achieving LEED Platinum certification and providing opportunities to showcase sustainable elements.

**Architect/Engineer:**
Wendel Companies, in association with Draper Aden Associates

**Construction Manager:**
To be determined
Multi-Modal Transit Facility

Board of Visitors Design Review
- Multi-Modal Transit Facility

Project Location

The Inn / Welcome Center
Downtown Business District
Prices Fork Road
Site
The Grove
VT Golf Course

Downtown Business District

VT
VIRGINIA TECH
**Multi-Modal Transit Facility**

**Project Information**

- **New Construction:** 13,716 GSF
- **Delivery Method:** Design-Bid-Build
- **Project Management:** Design & construction being completed through the Town of Blacksburg
- **Design Phase:** Working Drawings
- **Anticipated Occupancy:** Fall 2020

**VT**

**VIRGINIA TECH**
Multi-Modal Transit Facility

Existing Conditions: Bus Transfers at Burruss Hall
Multi-Modal Transit Facility

Existing Conditions: East View of Project Site
Multi-Modal Transit Facility

Site Plan

- Western Terminal (8 Slips)
- MMTF Building
- New Classroom Building
- Eastern Terminal (9 Slips)
- Existing Parking Garage
- Goodwin Hall
- Whittemore Hall
- Durham Hall

VIRGINIA TECH
Multi-Modal Transit Facility

Terminals & Southwest Plaza Entry

MMTF Building

Perry Street Parking Garage

Western Terminal

Eastern Terminal

Pedestrian Plaza
Multi-Modal Transit Facility
Southeast Station Facade

Western Terminal
Main Station & Offices
Perry Street Pedestrian Mall
- Multi-Modal Transit Facility

Southeast Station Facade

New Entry Plaza

Aluminum & Glass Entry

Demonstration Windmill

Metal Infill Panel

Aluminum & Glass Entry

New Entry Plaza
Multi-Modal Transit Facility

First Floor Plan

Seating Area

Bike Repair

Training Room
Multi-Modal Transit Facility

Recommendation

- That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with anticipated building construction completion in the fall of 2020.
DESIGN REVIEW FOR THE VIRGINIA TECH CARILION BIOMEDICAL RESEARCH EXPANSION

At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are currently proceeding with the Preliminary Design phase for approximately 139,300 gross square feet of new construction. These designs are consistent with, and refinements of, the schematic designs shown to the Board of Visitors during the September Design Preview. The project will include research and education spaces that bring together researchers and clinicians in areas of human and animal medical sciences with a focus on five thematic areas. The site is located at the Riverside Center Research Education and Medical Park in Roanoke. The final design phase and a construction schedule are to be determined; however, building occupancy is anticipated in late 2019.
Title of Project:
Virginia Tech Carilion (VTC) Biomedical Research Expansion

Location:
The building site is located at the Riverside Center Research Education and Medical Park in Roanoke, Virginia on the Carilion Clinic campus. The site, 4 Riverside Circle, is currently a surface parking lot serving the other buildings in Riverside Center.

Current Project Status and Schedule:
At the September 2017 Board of Visitors meeting, a Comprehensive Agreement with Carilion Clinic was approved to construct the Virginia Tech Carilion Biomedical Research Expansion through an unsolicited Public-Private Education and Infrastructure Act (PPEA) proposal. Carilion Clinic and their design team are proceeding with the Preliminary Design phase. These designs are consistent with, and refinements of, the schematic designs approved by the Board of Visitors during the September Design Preview. The final design phase and a construction schedule are to be determined; however, building occupancy is anticipated in late 2019.

Project Description:
The project will construct approximately 139,300 gross square feet (GSF) and provide facilities for Health Sciences & Technology Comparative Oncology research and education. The project will bring together researchers and clinicians in areas of human and animal medical sciences, focusing on five thematic areas. Five principal investigators will be recruited for each of the thematic areas: Biomaterials; Body Device Interfaces; Brain Health and Disease; Cardiovascular Sciences; Infectious Disease and Immunity; and Metabolism and Obesity.

Brief Program Description:
Key programmatic elements to support research and education in the facility include high-intensity biomedical research capable laboratories with surgical-type suites, Biosafety Level Three laboratories, and animal imaging facilities that require high field magnetic resonance imaging. The Comparative Oncology Research Center facility, in order to provide oncology services for companion animals, will include a linear accelerator. Additionally, high-intensity dry laboratories, experiential learning spaces, procedural training rooms, computational facilities, and core facilities will support the initiatives. These spaces will occupy three elevated levels above a ground floor. The ground floor will
provide a public atrium, research-on-display workshop, and a café which connects the building to the public and Virginia Tech Carilion Research Institute/Virginia Tech Carilion School of Medicine at the street level. The new facility will connect to the existing Virginia Tech facility across Riverside Circle via an enclosed bridge.

**Contextual Issues and Design Intent:**
The exterior veneer of the building will combine Hokie Stone from the Virginia Tech campus in Blacksburg with the brick and precast architectural concrete of the Carilion Riverside campus in Roanoke.

The current, ongoing 2017 Campus Master Plan update scope includes work at sites other than main campus, and will conduct a master planning effort for Virginia Tech’s facilities and holdings in the Roanoke area.

**Architect/Engineer:**
AECOM

**Construction Manager:**
Skanska
Virginia Tech Carilion
Biomedical Research Expansion
Board of Visitors Design Review
VTC Biomedical Research Expansion

Master Plan Vision

Site Plan

VIRGINIA TECH CARLION

Roanoke Context

Downtown

Roanoke

Site
VTC Biomedical Research Expansion

**Project Information**

- **New Construction:** 139,300 GSF
- **Delivery Method:** PPEA
- **Funding:** Total Project Budget of $89.9M
- **Design Phase:** Preliminary
- **Occupancy Date:** Late 2019
VTC Biomedical Research Expansion

Existing Conditions; Riverside Circle, Southeast View to Mill Mountain

VIRGINIA TECH
- VTC Biomedical Research Expansion

Existing Conditions: Riverside Circle, Viewing West

Existing Parking Deck

Riverside Circle

VTCRI
VTC Biomedical Research Expansion

Site Plan

- South Entry & Plaza
- Accessible Pathway
- Existing Parking Deck
- Dog Walk
- Connector Bridge
- Atrium Entry
- Riverside Circle
- Carilion Riverside Clinic
- Carilion Riverside OB/GYN
- VTCRI
- SITE
- Drop-off
- Loop
VTC Biomedical Research Expansion

Floor Plan – Ground Floor

Dog Walk

VET MED
Comparative Oncology

Multi-Disciplinary Educational Space

Imaging Core
VTC Biomedical Research Expansion

Floor Plan – Bridge Level

Connector
Bridge Path
Riverside Circle
VTC Biomedical Research Expansion

Floor Plan – Second Floor

- HST Open Laboratories
- Open Office Space
- Clinical Core
VTC Biomedical Research Expansion

Floor Plan – Third Floor

HST Open Laboratories

Open Office Spaces
Recommendation

- That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown, with an anticipated building construction completion in late 2019.
MARCH AGENDA DISCUSSION

The Committee will discuss potential agenda items for the March 2018 Buildings and Grounds Committee Meeting.
**Open Joint Session Agenda**

FINANCE AND RESOURCE MANAGEMENT COMMITTEE  
AND BUILDINGS AND GROUNDS COMMITTEE  

Solitude Room, The Inn at Virginia Tech  
11:15 a.m. – 11:30 a.m.  

November 6, 2017

<table>
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| 1. Approval of Resolution for Student Wellness Improvements | Mr. Shelton  
Dr. Wilson |

* Requires full Board approval.
Open Session

1. Approval of Resolution for Student Wellness Improvements: The Committees will review for approval a resolution for Student Wellness Improvements. In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university conducted a program and facility study and identified the renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs.

The proposed improvements to War Memorial Hall will provide updated space for Cook Counseling Center and Hokie Wellness, the department of Human Nutrition, Foods, and Exercise (HNFE), Recreation Sports, and School of Education for running programmatic activities to support and promote student wellness, instruction, and research. The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to accommodate student health services.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. This request is for a $63 million authorization to complete the Student Wellness Improvements project.

* Requires full Board approval.
Capital Project for Student Wellness Improvements

JOINT FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

October 3, 2017

In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university subsequently conducted a program and facility study that identified a renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs. This work resulted in a placeholder project for the improvements, titled Student Wellness Improvements, on the university’s 2018-2024 Six-Year Capital Outlay Plan approved by the Board of Visitors at its April 3, 2017 meeting. The university continued work on the program, funding plan, schedule, and costs and is now ready to request authorization to proceed with the full project.

The existing War Memorial Hall is approximately 201,000 gross square feet. The proposed improvements include renovating approximately 175,000 gross square feet, demolition of approximately 26,000 gross square feet of the east side of the building, and a 38,000 gross square foot replacement on the east side of the building. The final size of the facility will be approximately 213,000 gross square feet. The improvements will provide space for the programs described below, will address deferred maintenance and code requirements, and will install air conditioning to the building.

- Cook Counseling Center and Hokie Wellness will be located on the third floor creating an optimal environment for coordination of prevention, educational intervention, and treatment services. Relocating Cook Counseling from McComas Hall will consolidate offices currently located in McComas Hall and off campus leased space in one central location in War Memorial Hall, making it easier for students to access services before, after, or between classes. Cook Counseling will include approximately 40 interview offices, three group session rooms, and a waiting room for up to 50 patients. Hokie Wellness will include offices, training and educational space, individual and group consultation rooms, and a recovery community lounge.

- Recreational Sports will be located on the first and second floors and include five basketball courts, four racquetball courts, two squash courts, an expanded weight and cardio area, multipurpose rooms, a performance laboratory, and office space for recreation sports administration.

- The department of Human Nutrition, Foods, and Exercise (HNFE) will shift to the second floor from the third floor to make space for counseling services. The space will include research clinic laboratory with three procedure rooms, two consultation rooms, food preparation area, biochemistry laboratory, metabolic work area, and open metabolic areas.
The School of Education will remain in the historic front section of War Memorial Hall with renovated and updated offices, three large classrooms, two small classrooms, conference rooms, computer laboratory, and research space.

The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to 19,000 square feet in the area vacated by counseling services to accommodate student health services. A reconfiguration will alleviate the cramped conditions that currently exist in the Schiffert Health Center and address privacy and confidentiality protocols for students. The renovation creates additional general medicine exam rooms, additional practitioner offices, renovated x-ray room, procedure room, new airborne isolation procedure room, two phlebotomy stations, two allergy exam rooms, two women's health exam rooms, and three waiting areas.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. As with all self-supporting projects, the university has developed a financing plan to provide assurance regarding the financial feasibility of this project. The total project funding is $63 million and calls for the use of debt which may be serviced from Student Health and Recreational Sports auxiliaries and an internal lease for the School of Education program. Any cash designated for the project accumulated prior to the issuance of permanent debt may be used directly for project costs and to lower the estimated total debt issuance. Temporary financing will be secured to cover project costs until permanent debt is issued.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $63 million authorization to complete the Student Wellness Improvements projec
RESOLUTION OF A CAPITAL PROJECT FOR
STUDENT WELLNESS IMPROVEMENTS PROJECT

WHEREAS, the Board of Visitors approved a $2.757 million planning project at its March 2016 meeting to support planning work on a comprehensive student wellness services project; and,

WHEREAS, a major renovation of War Memorial Hall along with a minor renovation to McComas Hall has been identified as the desired solution to address the needs for student health services, counseling services, and indoor recreation; and,

WHEREAS, the project scope includes 213,000 gross square feet of improvements and expansion to War Memorial Hall and renovations of 19,000 gross square feet to Schiffert Health Center; and,

WHEREAS, the scope includes addressing deferred maintenance, code compliance, and installing air conditioning to War Memorial Hall; and,

WHEREAS, the total project budget is $63 million and the university has developed a 100 percent nongeneral fund resource plan for the project; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded major capital outlay projects.

NOW, THEREFORE BE IT RESOLVED, that the university be authorized to move forward with a $63 million authorization for the Student Wellness Improvements project and to secure temporary short-term financing through any borrowing mechanism that prior to such borrowing has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $63 million authorization, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to complete the Student Wellness Improvements project be approved.

November 6, 2017
Student Wellness

Importance of Health & Wellness to VT Mission

- Ut Prosim
- Teaching, Research, Outreach
- Student Academic Success
- Student Wellbeing
Student Wellness

Potential Demand Growth

Rising enrollment could drive demand for health and counseling services up over 21 percent.

* 2017-18 and 2018-19 data based on projections from the Division of Student Affairs.
Inadequacy of Current Facilities

STUDENT WELLNESS

* 2017-18 and 2018-19 data based on projections from the Division of Student Affairs.

Crowding issues jeopardize the efficacy of, and access to, health and wellness services.
Crowding jeopardizes access to, and the efficacy of, health and wellness services.
Student Wellness

Increased Centralization
War Memorial Hall (WMH): Phase 1

- Demolition of existing wing containing Raquetball Courts, School of Education Suite, Classrooms
War Memorial Hall: Phase 2

- New Construction addition
- Department of Human Nutrition, Foods, and Exercise and Performance Lab relocates into new addition
- Renovation of remaining areas in War Memorial Hall
- Counseling Center & Hokie Wellness relocate to War Memorial Hall
- Renovation of War Memorial head house
- School of Education moves into head house
- **McComas Hall: Phase 1**

  - Cook Counseling Center & Hokie Wellness relocate to War Memorial Hall
• Schiffert Health Center expansion
  – Allergy Clinic, Women’s Health, Lab, Offices occupy space vacated by Cook Counseling Center
• Renovation of Schiffert Health Center (Level 01)
• Recreational Sports satellite offices infill previous Hokie Wellness offices
Open Joint Session Agenda

BUILDINGS AND GROUNDS COMMITTEE
AND
COMPLIANCE AUDIT AND RISK COMMITTEE

The Inn at Virginia Tech – Solitude
9:45 a.m. – 10:00 a.m.
November 5, 2017

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<th>Agenda Item</th>
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Open Session

1. **2016 Jeanne Clery Act Report on Campus Security and Fire Safety:** The Committees will review the annual campus security and fire safety report for Virginia Tech that is compiled and published by the Virginia Tech Police Department. This annual report is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The purpose of the report is to provide information about security on campus, to include: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides.
2016 Jeanne Clery Act Report

Jeanne Clery was raped and murdered in her dorm room at Lehigh University in 1986. Her killer was another student. Her parents believe she would have been more cautious if she had known about other violent crimes at Lehigh.

The Clery Act is a federal law which requires higher education institutions to report crime statistics to current & prospective students & employees, amongst other things.
Last updated in June 2016.

Clery requires Virginia Tech to include 4 general categories of offenses in our Annual Safety/Security Report:

1. Criminal offenses
2. Hate Crimes
3. Violence Against Women Act (VAWA) offenses
4. Arrests and referrals for disciplinary action

We must include in our annual crime statistics the number of all reported offenses without regard to the findings of a court, coroner or jury, or the decision of a prosecutor.
The Clery Act identifies certain crimes as “Clery reportable” crimes. They are:

- Criminal homicide: Murder, Non-negligent Manslaughter and Manslaughter by Negligence
- Sexual Assault (Sex Offenses): Rape, Fondling, Incest, Statutory Rape
- Robbery
- Aggravated assault
- Burglary
- Motor vehicle theft
- Arson
- Domestic Violence
- Dating Violence
- Stalking
- Hate crimes

Arrests & disciplinary referrals for violations of liquor, drug, & weapons laws
The Clery Act states that an Emergency Notification (VT Alert) MUST BE sent upon confirmation of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students or employees occurring on the campus. An “immediate” threat as used here encompasses an imminent or impending threat, such as an approaching forest fire, as well as a fire currently raging in one of your buildings.

Examples:

- Outbreak of meningitis, norovirus or other serious illness
- Approaching tornado, hurricane or other extreme weather conditions
- Earthquake
- Gas leak
- Terrorist incident
- Armed intruder
- Bomb threat
- Civil unrest or rioting
- Explosion
- Nearby chemical or hazardous waste spill
The crimes identified under Clery are subject to “Timely Warnings.”

“The Clery Act requires you to alert the campus community to certain crimes in a manner that is timely and will aid in the prevention of similar crimes. Although the Clery Act doesn’t define ‘timely,’ the intent of the warning regarding a criminal incident(s) is to enable people to protect themselves. This means that a warning should be issued as soon as pertinent information is available.”
We are required to issue a timely warning “for all Clery Act crimes that occur on your Clery Act geography that are:

• reported to campus security authorities or local police agencies; and

• considered by the institution to represent a serious or continuing threat to students and employees.”
Clery directs us to consider 3 factors prior to issuing a timely warning:

1. the nature of the crime (was it a Clery Act crime?),
2. the continuing danger to the campus community, and
3. the possible risk of compromising law enforcement efforts.

The Clery Act does not specifically address the content of a timely warning, but does state “the warning should include all information that would promote safety and that would aid in the prevention of similar crimes”. Hence, the safety tips that are included in all of our timely warnings.
Clery Act - Sexual Assault and Timely Warning

Example Timely Warning

From: VTPolice@vt.edu [mailto:VTPolice@vt.edu]
Sent: Wednesday, September 6, 2017 5:21 PM
Subject: Crime Alert - Sexual Assault

On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously acquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident:

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept alcohol or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_Involved.html

Example Timely Warning

If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol, or where a person has a disability, or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts."

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: www.stopabuse.vt.edu. The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7800
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Poldomo: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6057
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

If you report a sexual assault that occurred on the Virginia Tech campus, Virginia Tech Police will investigate, provide assistance, and offer related services to support your safety and well-being. If the crime occurred in another jurisdiction, Virginia Tech Police will assist you in accessing assistance in that jurisdiction.

The Virginia Tech Police Department offers a range of personal safety programs, including a Rape Aggression Defense course. For more information, see: police.vt.edu/programs-training/rd.html
# Virginia Tech Blacksburg Campus Crimes Statistics 2016

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*Note: All data is for the years 2014, 2015, and 2016.*
On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously unacquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident:

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept either alcoholic or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_Involved.html
If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol; or where a person has a disability; or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts".

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: www.stopabuse.vt.edu. The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7806
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Polidoro: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6557
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

If you report a sexual assault that occurred on the Virginia Tech campus, Virginia Tech Police will investigate, provide assistance, and offer related services to support your safety and well-being. If the crime occurred in another jurisdiction, Virginia Tech Police will assist you in accessing assistance in that jurisdiction.

The Virginia Tech Police Department offers a range of personal safety programs, including a Rape Aggression Defense courses. For more information: http://police.vt.edu/programs-training/rad.html
# Open Session Agenda

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

Solitude Room, The Inn at Virginia Tech  
8:15 a.m. – 9:45 a.m.  
November 5, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
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<tbody>
<tr>
<td>1. Motion to Reconvene in Open Session</td>
<td>Mr. Mills</td>
</tr>
<tr>
<td>2. Welcome and Introductory Remarks</td>
<td>Mr. Kazmi</td>
</tr>
<tr>
<td>3. Consent Agenda</td>
<td>Mr. Kazmi</td>
</tr>
<tr>
<td>a. Approval of the Minutes of the September 10, 2017 Meeting</td>
<td></td>
</tr>
<tr>
<td>b. Update of Responses to Open Internal Audit Comments</td>
<td></td>
</tr>
<tr>
<td>c. University Internal Audit Status Report</td>
<td></td>
</tr>
<tr>
<td>d. Acceptance of Report Issued by University Internal Audit</td>
<td></td>
</tr>
<tr>
<td>i. Virginia-Maryland College of Veterinary Medicine Compliance Review</td>
<td></td>
</tr>
<tr>
<td>4. Review and Acceptance of the Auditor of Public Accounts</td>
<td>Mr. Reinholtz</td>
</tr>
<tr>
<td>Financial Statement Audit and Management Letter for the June 30, 2017 Audit</td>
<td></td>
</tr>
<tr>
<td>5. Review and Approval of Charters</td>
<td>Ms. Kurek</td>
</tr>
<tr>
<td>6. Enterprise Risk Management Program</td>
<td>Ms. Kurek</td>
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<tr>
<td>7. University Compliance Program</td>
<td>Ms. Kurek</td>
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<tr>
<td>8. Title IX Update</td>
<td>Ms. Heidbreder</td>
</tr>
<tr>
<td>9. Discussion of Future Topics</td>
<td>Mr. Kazmi</td>
</tr>
</tbody>
</table>
Compliance, Audit, and Risk Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Welcome and Introductory Remarks:** The chair of the Compliance, Audit, and Risk Committee will provide opening remarks.

3. **Consent Agenda:** The Committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. **Approval of Minutes of the September 10, 2017 Meeting:** The Committee will review and approve the minutes of the September 10, 2017 meeting.

   b. **Update of Responses to Open Internal Audit Comments:** The Committee will review the university’s update of responses to all previously issued internal audit reports. As of June 30, 2017, the university had 11 open recommendations. Ten audit comments have been issued during the first quarter of the fiscal year. As of September 30, 2017, the university has addressed nine comments, leaving 12 open recommendations in progress.

   c. **University Internal Audit Status Report:** The committee will review University Internal Audit’s Status Report. University Internal Audit has completed three percent of its audit plan in accordance with the fiscal year 2017-18 annual audit plan.

   d. **Acceptance of Report Issued by University Internal Audit:** The following report was issued since the September 10, 2017 meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. As noted above, University Internal Audit conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

      i. **Virginia-Maryland College of Veterinary Medicine Compliance Review:** The audit received a rating of significant improvements are needed. Audit
recommendations were issued to management where opportunities for further improvement were noted in the areas of fiscal responsibility, wage payroll, leave reporting, P14 appointments, expenditures, and funds handling. Additionally, an observation for central administration was noted in the area of P-14A forms for Human Resources.

4. **Review and Acceptance of the Auditor of Public Accounts Financial Statement Audit and Management Letter for the June 30, 2017 Audit:** The Committee will receive a report from Mr. Reinholtz, Audit Director, Auditor of Public Accounts, on the status of the university’s financial statement audit and management letter for the fiscal year ended June 30, 2017.

5. **Review and Approval of Audit Charters:** The Committee will review the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance in accordance with professional standards. After conducting a thorough review, the Office of Audit, Risk, and Compliance will recommend modifications to the charters reflecting the reorganization of the Board of Visitors committee structure.

6. **Enterprise Risk Management Program:** The Committee will receive an overview of the proposed Enterprise Risk Management (ERM) framework and an update on the efforts at the university to establish an ERM program.

7. **University Compliance Program:** The Committee will receive a report on the university’s efforts to establish a compliance oversight committee to coordinate best practices regarding risk assessment and monitoring activities, including the committee structure and charter.

8. **Title IX Update:** The Committee will receive an update on changes regarding Title IX guidance. Under Title IX of the Education Amendments of 1972 and its implementing regulations, an institution that receives federal funds must ensure that no student suffers a deprivation of her or his access to educational opportunities on the basis of sex. On September 22, 2017, the U.S. Department of Education Office for Civil Rights (OCR) released new guidance in the form of a Dear Colleague Letter and questions-and-answer document (Q&A) on Campus Sexual Misconduct and withdrew the 2011 Dear Colleague Letter on Sexual Violence and related 2014 Q&A document. This guidance provides information about how OCR will assess a school’s compliance with Title IX.
9. **Discussion of Future Topics**: The Committee will discuss topics to be covered in future committee meetings.
Motion to Reconvene in Open Session

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

WHEREAS, the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and

WHEREAS, §2.2-3711 of the Code of Virginia requires a certification by the Compliance, Audit, and Risk Committee that such closed meeting was conducted in conformity with Virginia Law;

NOW, THEREFORE, BE IT RESOLVED, that the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia Law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed, or considered by the Compliance, Audit, and Risk Committee.
Welcome and Introductory Remarks

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

The Chair of the Compliance, Audit, and Risk Committee

will offer welcoming remarks

and ask for approval of the agenda.
The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

a. Approval of Minutes of the September 10, 2017 Meeting
b. Update of Responses to Open Internal Audit Comments
c. University Internal Audit Status Report
d. Acceptance of the following Report Issued by University Internal Audit
   i. Virginia-Maryland College of Veterinary Medicine Compliance Review
Committee Minutes

COMPLIANCE, AUDIT, AND RISK COMMITTEE

Duck Pond Room, The Inn at Virginia Tech
8:30 a.m.

September 10, 2017

Closed Session

Committee Members Present: Mr. Mehmood Kazmi (chair), Ms. Tish Long, Mr. Robert Mills Jr., Mr. Horacio Valeiras

Board Members Present: Ms. Deborah Petrine, Mr. Dennis Treacy (rector)

VPI & SU Staff: Mr. Brian Daniels, Ms. Carolyn Fulk, Ms. Kay Heidbreder, Ms. Sharon Kurek, Dr. Theresa Mayer, Ms. Kim O'Rourke, Dr. Timothy Sands, Mr. M. Dwight Shelton Jr.

1. **Motion to Reconvene in Closed Session.** Motion to begin closed session.

2. **Review and Acceptance of the Following Report Issued by University Internal Audit.** The Committee received an internal audit report on IT: Printers and Networked Devices. Where applicable, management developed action plans to effectively address the issue in the reports with a reasonable implementation timeframe. University Internal Audit will conduct follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

   i. **IT: Printers and Networked Devices:** The audit received a rating of improvements are recommended. An audit recommendation was issued to management where opportunities for further improvement were noted in the area of secure printing of personally identifiable information (PII). Additionally, an observation with university-wide impact was noted with respect to insecure services and out-of-date firmware for multifunction printers (MFPs). Furthermore, observations for selected departments were noted in the areas of protection of PII and sensitive data, access control, secure management, secure configuration, and device hardening of MFPs and networked devices.
3. **Update on Fraud, Waste, and Abuse Cases.** The Committee received an update on outstanding fraud, waste, and abuse cases.

4. **Annual Performance Review of the Director of Internal Audit.** The Committee provided an annual performance review to the Director of Internal Audit.

5. **Discussion with the Director of Internal Audit.** The Director of Internal Audit discussed audits of specific departments and units where individual employees were identified.

**Open Session**

**Committee Members Present:** Mr. Mehmood Kazmi (chair), Ms. Tish Long, Mr. Robert Mills Jr., Mr. Brett Netto (graduate student representative), Mr. Horacio Valeiras

**Board Members Present:** Ms. Greta Harris, Mr. C.T. Hill, Ms. Anna James, Mr. Seyi Olusina (undergraduate student representative), Mr. Mike Qullen, Dr. Hans Robinson (faculty representative), Mr. Dennis Treacy (rector)

**VPI & SU Staff:** Mr. Bill Abplanalp, Mr. Bob Broyden, Mr. Brock Burroughs, Dr. Kris Bush, Ms. Shelia Collins, Mr. Al Cooper, Mr. Brian Daniels, Dr. Lance Franklin, Ms. Carolyn Fulk, Mr. Tony Haga, Ms. Deanna Harris, Ms. Kay Heidbreder, Ms. Kina Kelly, Ms. Sharon Kurek, Mr. Randy Marchany, Dr. Theresa Mayer, Dr. Scott Midkiff, Mr. Ken Miller, Dr. David Moore, Ms. Kim O’Rourke, Mr. Mark Owczarski, Dr. Scot Ransbottom, Dr. Timothy Sands, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr., Ms. Kayla Smith, Mr. John Talerico, Mr. Steve Vantine, Dr. Lisa Wilkes, Dr. Sherwood Wilson

1. **Motion to Reconvene in Open Session.** Motion to begin open session.

2. **Welcome and Introductory Remarks.** The chair of the Compliance, Audit, and Risk Committee welcomed committee members and guests and provided opening remarks, emphasizing establishment of the new governance structure.

3. **Consent Agenda.** The Committee approved and accepted the items listed on the Consent Agenda.

   a. **Approval of Minutes of the June 5, 2017 Meeting.** The Committee reviewed and approved the minutes of the June 5, 2017 meeting.
b. **Update of Responses to Open Internal Audit Comments.** As of June 30, 2017, the university had 11 open recommendations. Seven audit comments have been issued during the fourth quarter of this fiscal year. As of June 30, 2017, the university has addressed 14 comments, leaving 11 open recommendations in progress. As of August 1, 2017, University Internal Audit has closed seven of the 11 open recommendations.

c. **Acceptance of Reports Issued by University Internal Audit.** The Committee received six internal audit reports. Where applicable, management developed action plans to effectively address the issue in the reports with a reasonable implementation timeframe. As noted above, University Internal Audit conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

i. Athletics NCAA – Recruiting: The audit received a rating of improvements are recommended. An audit recommendation was issued where opportunities for further improvement were noted in the area of communication of compliance regulations to outside entities.

ii. Compliance Program Assessment: The audit received a rating of improvements are recommended. Audit recommendations were issued where opportunities for further improvement were noted in the areas of governance and accountability and also risk assessment and monitoring. Additionally, low-priority recommendations of a less significant nature were noted where opportunities for improvement were identified in the areas of education and communication strategies incident management.

iii. Controller’s Office – Fixed Assets: The audit received a rating of effective.

iv. IT: General Controls Review: The audit received a rating of improvements are recommended. An observation with university-wide impact was noted with respect to security awareness training. Additionally, observations for selected departments were noted in the areas of end-user device security, security awareness training, and software installation.

v. University Policy Review: The audit received a rating of improvements are recommended. An audit recommendation was issued where opportunities for further improvement were noted in the area of policy governance strategy. Additionally, low-priority recommendations of a less
significant nature were noted where opportunities for improvement were identified with regards to updated policy awareness and communication strategies, accessing authoritative guidance, and policy management resource documentation.

vi. Virginia Tech Carilion Research Institute: The audit received a rating of improvements are recommended. An audit recommendation was issued where opportunities for further improvement were noted in the area of payments to human behavior study participants.

d. Status Update of the June 30, 2017 Audit of the University’s Financial Statements. This report provided the current status of the audit of the university’s financial statements for 2016-17.

e. Statewide Reviews and Special Report. This report was related to ongoing and forthcoming statewide reviews. Virginia Tech is subject to reviews by a variety of Commonwealth agencies, including the Auditor of Public Accounts (APA) and the Office of the State Inspector General (OSIG).

4. Acceptance of University Internal Audit’s Annual Status Report for the Fiscal Year Ended June 30, 2017. The Committee reviewed University Internal Audit’s Annual Status Report as of June 30, 2017. This report documented the Committee’s review of the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships as required by the Committee’s Charter. In addition to conducting scheduled audits, compliance reviews, and advisory services, the department participated in annual audit activities, fraud investigations, and professional development activities. Thirty audit projects, or 86 percent of the audits on the fiscal year 2016-17 audit plan, have been completed. One risk-based audit and four advisory projects were underway at fiscal year-end and will be carried forward to fiscal year 2017-18. The Committee also received an overview of cost containment recommendations, recurring audit issues, and survey results for evaluating University Internal Audit services.

5. Approval of the Fiscal Year 2017-18 Internal Audit Plan. The Committee approved the proposed audits on the fiscal year 2017-18 annual audit plan. University Internal Audit conducted the annual risk assessment after reviewing financial and operational data and seeking input from senior management. In addition, a university-wide information technology risk assessment and audit plan were created in accordance with industry standards. For fiscal year 2017-18,
approximately 30 audit projects are proposed, with 74 percent of available resources committed to the completion of planned projects. Audits not completed in the fiscal year scheduled will be carried forward to the next fiscal year.

6. **Acceptance of the following Reports Issued by University Internal Audit.** The Committee also received and accepted an internal audit report outside of the Consent Agenda on High Performance Computing. Where applicable, management developed action plans to effectively address the issue in the reports with a reasonable implementation timeframe. As noted above, University Internal Audit conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

   a. High Performance Computing: The audit received a rating of improvements are recommended. An observation with university-wide impact was noted with respect to investment decisions and utilization metrics of HPC. Additionally, low-priority recommendations of a less significant nature were noted where opportunities for improvement were identified with regards to data restoration procedures and account removal for separated users.

7. **Enterprise Risk Management Program.** The Committee received a report on efforts at the university to evaluate best practices related to Enterprise Risk Management (ERM) in higher education and establishment of an ERM program at the university. Risk management, as an essential part of a strong control environment, helps ensure that risk appetite aligns with management’s decisions and an organization’s strategy. The committee discussed the estimated timeline for sharing the proposed ERM framework during the November meeting and reviewing the initial high-level risk diagram in the spring.

8. **Overview of an Effective Compliance Program.** The Committee received a report on effective compliance programs within the higher education construct. Although applicable laws and regulations come in many forms, a comprehensive compliance program helps institutions and their employees conduct operations ethically, comply with legal and regulatory requirements, and achieve operational accountability and transparency. It was noted during discussion that the university is interested in pursuing a compliance oversight committee to coordinate best practices regarding risk assessment and monitoring activities. While the committee structure and charter will be shared during the November meeting, it was noted that this work would lag behind the implementation of the ERM program.
9. **Discussion of Future Topics.** The Committee discussed agenda items for future meetings. It was noted that the committee is looking forward to receiving more in-depth information on top risk areas once they are identified through the ERM program.

There being no further business, the meeting adjourned at 10:45 a.m.
Update of Responses to Open Internal Audit Comments

COMPLIANCE, AUDIT, AND RISK COMMITTEE

September 30, 2017

As part of the internal audit process, university management participates in the opening and closing conferences and receives copies of all Internal Audit final reports. The audited units are responsible for implementing action plans by the agreed upon implementation dates, and management is responsible for ongoing oversight and monitoring of progress to ensure solutions are implemented without unnecessary delays. Management supports units as necessary when assistance is needed to complete an action plan. As units progress toward completion of an action plan, Internal Audit performs a follow-up visit within two weeks after the target implementation date. Internal Audit is responsible for conducting independent follow up testing to verify mitigation of the risks identified in the recommendation and formally close the recommendation. As part of management’s oversight and monitoring responsibility, this report is provided to update the Finance and Audit Committee on the status of outstanding recommendations. Management reviews and assesses recommendations with university-wide implications and shares the recommendations with responsible administrative departments for process improvements, additions or clarification of university policy, and inclusion in training programs and campus communications. Management continues to emphasize the prompt completion of action plans.

The report includes outstanding recommendations from Compliance Reviews and Audit Reports. Consistent with the report presented at the September Board meeting, the report of open recommendations includes three attachments:

- Attachment A summarizes each audit in order of final report date with extended and on-schedule open recommendations.
- Attachment B details all open medium and high priority recommendations for each audit in order of the original target completion date, and with an explanation for those having revised target dates or revised priority levels.
- Attachment C charts performance in implementing recommendations on schedule over the last seven years. The 100 percent on-schedule rate for fiscal year 2018 reflects closing 9 of 9 recommendations by the original target date.

The report presented at the September 11, 2017 meeting covered Internal Audit reports reviewed and accepted through June 30, 2017 and included eleven open medium and high priority recommendations. Activity for the quarter ended September 30, 2017 resulted in the following:

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<th>Description</th>
<th>Number</th>
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<td>Open recommendations as of June 30, 2017</td>
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<tr>
<td>Add: Medium &amp; High priority recommendations accepted September 11, 2017</td>
<td>10</td>
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<tr>
<td>Subtract: recommendations addressed since June 30, 2017</td>
<td>9</td>
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<tr>
<td>Remaining open recommendations as of September 30, 2017</td>
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While this report is prepared as of the end of the quarter, management continues to receive updates from Internal Audit regarding auditee progress on action plans. Through October 6, 2017 Internal Audit has closed one of the twelve outstanding medium and high priority recommendations for an adjusted total of eleven open recommendations. The remaining open recommendations are progressing as expected and are on track to meet their respective target due dates. Management continues to work conjointly with all units and provides assistance as needed to ensure action plans are completed timely.
**ATTACHMENT A**

**Open Recommendations by Priority Level**

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**September 30, 2017**

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<td>19-Oct-16</td>
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<td>01-Feb-17</td>
<td>University Scholarships and Financial Aid</td>
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<td>Geosciences</td>
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<td>23-Aug-17</td>
<td>Virginia Tech Carilion Research Institute</td>
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<td>Athletics NCAA - Recruiting</td>
<td>17-1355</td>
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<tr>
<td>23-Aug-17</td>
<td>University Policy Review</td>
<td>17-1323</td>
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<td>IT: Printer and Networked Device Security</td>
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**Totals:**

13 | 1 | 0 | 0 | 1 | 11 | 12
### Internal Audit Open Recommendations

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**September 30, 2017**

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Item</th>
<th>Audit Number</th>
<th>Audit Name</th>
<th>Recommendation Name</th>
<th>Original Priority</th>
<th>Original Target Date</th>
<th>Revised Priority</th>
<th>Revised Target Date</th>
<th>Follow Up Status</th>
<th>Status of Recommendations with Revised Priority / Target Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-Aug-17</td>
<td>1</td>
<td>17-1333</td>
<td>IT: Printer and Networked Device Security</td>
<td>Unencrypted Transmission of PII</td>
<td>Medium</td>
<td>15-Oct-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Aug-17</td>
<td>2</td>
<td>17-1325</td>
<td>IT: General Controls - OIA</td>
<td>Security Awareness Training</td>
<td>Medium</td>
<td>31-Oct-17</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>27-Apr-17</td>
<td>3</td>
<td>17-1322</td>
<td>Geosciences</td>
<td>Oversight of Lab Safety Training</td>
<td>Medium</td>
<td>01-Dec-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-Oct-16</td>
<td>4</td>
<td>16-1288</td>
<td>IT Project Management</td>
<td>Visibility, Clarity, Implementation and Measurement of the Standard for IT Project Management</td>
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<td>31-Dec-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Aug-17</td>
<td>5</td>
<td>17-1325</td>
<td>IT: General Controls - CLAHS</td>
<td>Security Awareness Training</td>
<td>Medium</td>
<td>31-Dec-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Aug-17</td>
<td>6</td>
<td>17-1325</td>
<td>IT: General Controls - OIA</td>
<td>End-User Device Security</td>
<td>Medium</td>
<td>31-Dec-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-Aug-17</td>
<td>7</td>
<td>17-1343</td>
<td>Virginia Tech Carilion Research Institute</td>
<td>Payments to Human Behavior Study Participants</td>
<td>Medium</td>
<td>15-Feb-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-Aug-17</td>
<td>8</td>
<td>17-1355</td>
<td>Athletics NCAA - Recruiting</td>
<td>Communication to Outside Entities</td>
<td>Medium</td>
<td>28-Feb-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01-Feb-17</td>
<td>9</td>
<td>17-1303</td>
<td>University Scholarships and Financial Aid</td>
<td>Awarding Not Based on Fund Criteria</td>
<td>Medium</td>
<td>01-Mar-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Aug-17</td>
<td>10</td>
<td>17-1325</td>
<td>IT: General Controls - VTCRI</td>
<td>End-User Device Security</td>
<td>Medium</td>
<td>01-Mar-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-Aug-17</td>
<td>11</td>
<td>17-1325</td>
<td>IT: General Controls - VTCRI</td>
<td>Security Awareness Training</td>
<td>High</td>
<td>01-Mar-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Follow Up Status**

1. As of September 30, 2017, management confirmed during follow up discussions with Internal Audit that actions are occurring and the target date will be met. Internal Audit will conduct testing after the due date to confirm that the Management Action Plan is implemented in accordance with the recommendations.

2. Target date is beyond current calendar quarter. Management has follow-up discussions with the auditor to monitor progress, to assist with actions that may be needed to meet target dates, and to assess the feasibility of the target date.
ATTACHMENT C
Management Performance and Trends Regarding Internal Audit Recommendations

COMPLIANCE, AUDIT, AND RISK COMMITTEE

September 30, 2017

Seven Year Trend of Recommendations Closed - On Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>% Closed - Extended</th>
<th>% Closed - On Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2012</td>
<td>2%</td>
<td>98%</td>
</tr>
<tr>
<td>FY2013</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>FY2014</td>
<td>2%</td>
<td>98%</td>
</tr>
<tr>
<td>FY2015</td>
<td>2%</td>
<td>98%</td>
</tr>
<tr>
<td>FY2016</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>FY2017</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>FY2018</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Audit Plan Update

Audits were performed in accordance with the fiscal year 2017-18 annual audit plan at a level consistent with the resources of University Internal Audit. One compliance review has been completed since the September board meeting.

The following six audit projects are underway: Research: Lab Safety, Chemistry, Research: Animal Care and Resources, Fire Safety Compliance, Biomedical Engineering and Mechanics, and the Vice President for Research and Innovation compliance review. Additionally, four advisory service projects, requested by management in the areas of Club Sports, Steger Center for International Scholarship, Virginia Tech Carilion School of Medicine, and the Marketing Study Abroad Program, are underway. One advisory service project, School of Plant and Environmental Sciences, has been cancelled.

So far in fiscal year 2017-18, University Internal Audit has completed three percent of its audit plan as depicted in Exhibit 1.

Exhibit 1
FY 2017-18 Completion of Audit Plan

<table>
<thead>
<tr>
<th>Audits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Audits Planned</td>
<td>34</td>
</tr>
<tr>
<td>Total # of Supplemental Audits</td>
<td>0</td>
</tr>
<tr>
<td>Total # of Carry Forwards</td>
<td>7</td>
</tr>
<tr>
<td>Total # of Planned Audits Canceled and/or Deferred</td>
<td>1</td>
</tr>
<tr>
<td>Total Audits in Plan as Amended</td>
<td>40</td>
</tr>
</tbody>
</table>

| Total Audits Completed                     | 1     |
| Audits - Percentage Complete              | 3%    |
| Audits - Percentage Complete or Underway  | 28%   |

Note: Includes Compliance Reviews and Advisory Services
Acceptance of Report Issued by University Internal Audit

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

Background

This report provides a summary of audit ratings issued this period (of those included within the consent agenda), and the full rating system definitions. One compliance review has been completed during this reporting period. University Internal Audit has made a concerted effort to ensure progress on the annual audit plan.

Ratings Issued This Period

| Virginia-Maryland College of Veterinary Medicine Compliance Review | Significant Improvements are Needed |

Summary of Audit Ratings

University Internal Audit’s rating system has four tiers from which to assess the controls designed by management to reduce exposures to risk in the area being audited. The auditor can use professional judgment in constructing the exact wording of the assessment in order to capture varying degrees of deficiency or significance.

Definitions of each assessment option

Effective – The audit identified opportunities for improvement in the internal control structure, but business risks are adequately controlled in most cases.

Improvements are Recommended – The audit identified occasional or isolated business risks that were not adequately or consistently controlled.

Significant or Immediate Improvements are Needed – The audit identified several control weaknesses that have caused, or are likely to cause, material errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior management should undertake immediate corrective actions to mitigate the associated business risk and possible damages to the organization.
Unreliable – The audit identified numerous significant business risks for which management has not designed or consistently applied controls prior to the audit. Persistent and pervasive control weaknesses have caused or could cause significant errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior management must undertake immediate corrective actions to bring the situation under control and avoid (additional) damages to the organization.

**RECOMMENDATION:**

That the internal audit report listed above be accepted by the Compliance, Audit, and Risk Committee.

November 5, 2017
Review and Acceptance of the Auditor of Public Accounts Financial Statement
Audit and Management Letter for the Fiscal Year Ending June 30, 2017

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

The Committee will receive an update on the status of
the Auditor of Public Accounts financial statement audit
and Management Letter
for the fiscal year ended June 30, 2017.
I. PURPOSE

The primary purpose of the Compliance, Audit, and Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university’s compliance with all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory agencies, funding agencies, and the State Council of Higher Education for Virginia,
- The maintenance of effective systems of internal control, including the integrity of the university’s financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Office of Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s internal control systems. The university's external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

This document and the related meeting planner are intended to identify and document the Committee’s oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. MEETINGS

By statute the Board of Visitors, including the CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently.
as circumstances warrant. The Committee Chair should discuss the agenda with the Executive Director of Audit, Risk, and Compliance prior to each Committee meeting to finalize the meeting agenda and review the items to be discussed.

III. RESPONSIBILITIES

In performing its audit oversight responsibilities, the CAR Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Maintain minutes of meetings.
3. Authorize audits within the Committee’s scope of responsibilities.
4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Risk Management and Internal Control

1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.
2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.
3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.
4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.
5. Advise management that they are expected to provide a timely analysis of significant reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.
2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.
3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.
4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.
5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (non-financial statement audits).

D. Internal Auditors
1. Approve the charter for the Office of Audit, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.
2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.
4. Review completed audit reports and progress reports on executing the approved annual audit plan.
5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.
6. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.
7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance.
8. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation.

E. Compliance, Ethics, and Business Conduct
1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.
2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.
3. Review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.

The “CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

**Virginia Polytechnic Institute and State University**  
**Compliance, Audit, and Risk Committee of the Board of Visitors CAR Agenda Meeting Planner**

<table>
<thead>
<tr>
<th>A=Annually; Q=Quarterly; AN=As Necessary</th>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1, Q2, Q3, Q4 based on Fiscal Year (July – June)</td>
<td>A Q AN Q1 Q2 Q3 Q4</td>
<td>Aug Nov Mar Jun</td>
</tr>
</tbody>
</table>

**A. General**

1. Review and update CAR Committee charter

2. Approve and maintain minutes of previous meeting

3. Authorize audits within the Committee’s scope of responsibilities

4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate

5. Meet in closed session with Executive Director of Audit, Risk, and Compliance, and with external auditors, as needed

**B. Risk Management and Internal Control**

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies

2. Consider the effectiveness of the university’s internal control systems

3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses

4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system

5. Advise management that they are expected to provide a timely analysis of significant current reporting issues and practices

**C. External Auditors**
1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Q</td>
</tr>
<tr>
<td>Q1, Q2, Q3, Q4 based on Fiscal Year (July – June)</td>
<td></td>
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</tbody>
</table>

2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
</tr>
</tbody>
</table>

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

A=Annually; Q=Quarterly; AN=As Necessary

4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
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</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

5. Review results of other significant reviews from regulatory agencies or other external entities

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</tbody>
</table>

D. Internal Auditors

1. Review and approve the charter for the Office of Audit, Risk, and Compliance, if changes are needed

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

2. Review the draft annual audit plan

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

3. Approve the annual audit plan

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
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</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

5. Review the results of the QAIP, including internal and external assessments

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
</tr>
</tbody>
</table>

6. Review completed audit reports and progress reports on executing the approved annual audit plan

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

7. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</table>

8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
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</tbody>
</table>

9. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
</tr>
</tbody>
</table>

E. Compliance, Ethics, and Business Conduct

1. Convey commitment to ethical conduct through periodic receipt of management reports on how the university’s mission, values, and codes of conduct are properly communicated to all employees

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Planned Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Q</td>
</tr>
<tr>
<td>Task</td>
<td>X</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>2. Review the programs and policies of the university designed</td>
<td></td>
</tr>
<tr>
<td>to assure and monitor compliance</td>
<td></td>
</tr>
<tr>
<td>3. Monitor the university's conflict of interest policies and</td>
<td>X</td>
</tr>
<tr>
<td>related procedures</td>
<td></td>
</tr>
</tbody>
</table>
I. PURPOSE

The primary purpose of the Finance Compliance, Audit, and Audit Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The integrity of the university’s financial accounting and reporting practices,
- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university’s compliance with all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory requirements, agencies, funding agencies, and the State Council of Higher Education for Virginia,
- Fiscal planning and the execution of fiscal plans,
- The maintenance of an effective system of internal controls, including the integrity of the university’s financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Department of Internal Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s system of internal controls. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

The Committee is charged in the Bylaws of the Board of Visitors with separating its responsibilities for Finance and Audit, respectively, and with maintenance of a separate audit agenda and finance agenda for each meeting. This document and the related meeting planner are intended to identify and document the Committee’s audit-specific oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities.
that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. COMPOSITION AND INDEPENDENCE

The Finance and Audit Committee will be comprised of three or more Visitors. Each committee member will be financially literate and shall fully comply with the State and Local Government Conflict of Interests Act, Section 2.2-3100 of the Code of Virginia as amended.

III. MEETINGS

By statute the Board of Visitors, including the Finance and Audit Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently as circumstances warrant. The Committee Chair should discuss the Audit agenda with the Executive Director of Internal Audit, Risk, and the university’s Chief Financial Officer prior to each Committee meeting to finalize the meeting agenda and review the issues to be discussed.

IV. RESPONSIBILITIES

In performing its audit oversight responsibilities, the Finance and Audit Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Maintain minutes of meetings.
3. Authorize audits within the Committee’s scope of responsibilities.
4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Internal Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Internal Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Internal Controls, Risk Assessment, Management and Financial Reporting

Internal Control
1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.

2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.

3. Review the university’s processes for assessing significant business risk exposures and the steps management has taken to monitor and control such exposures, including the university’s risk assessment and risk management policies.

4. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.

5. Review the annual financial statements with management and the external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

6. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.

7. Advise management that they are expected to provide a timely analysis of significant financial reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.

2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (nonfinancial statement audits).

D. Internal Auditors
1. Approve the **Internal charter for the Office of Audit Charter, Risk, and Compliance**. The charter should be reviewed annually and updated as necessary.

2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.

4. Review completed audit reports and progress reports on executing the approved annual audit plan.

5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.

6. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.

7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance.

8. Evaluate the Executive Director of Internal Audit’s Annual Performance and make decisions regarding compensation.

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<tr>
<th>Frequency</th>
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<tr>
<td>A=Annually; Q=Quarterly; AN=As Necessary</td>
<td>Q1, Q2, Q3, Q4 based on Fiscal Year (July – June)</td>
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<td>A</td>
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Presentation Date: November 9, 2015
A. General

E. Compliance, Ethics, and Business Conduct

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.

2. Require management to periodically report on procedures that provide assurance that the university's mission, values, and codes of conduct are properly communicated to all employees.

3. Periodically review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university's conflict of interest policies and related procedures.

The attached “Audit CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

Virginia Polytechnic Institute and State University
Finance Compliance, Audit, and Audit Risk Committee of the Board of Visitors
Audit CAR Agenda Meeting Planner

<table>
<thead>
<tr>
<th>A=Annually; Q=Quarterly; AN=As Necessary</th>
<th>Frequency</th>
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<td>Aug Nov Mar Jun</td>
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<tr>
<td>1. Review and update F&amp;A CAR Committee Audit Charter</td>
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<td>2. Approve and maintain minutes of previous meeting</td>
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<td>3. Authorize audits within the Committee’s scope of responsibilities</td>
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<tr>
<td>4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate</td>
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<tr>
<td>5. Meet in closed session with Executive Director of Internal Audit, Risk, and Compliance, and with external auditors, as needed</td>
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B. Risk Management and Internal Controls/Risk Assessment/Fin Reporting/Control

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies | X X X X X |

2. Consider the effectiveness of the university’s internal control systems | X |
2. Review the university’s processes for assessing significant business risk exposures and the steps taken to monitor and control such exposures  

3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses

4. Review the annual financial statements with management and external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles

5. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system

6. Advise management that they are expected to provide a timely analysis of significant current financial reporting issues and practices

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**C. External Auditors**

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year  

2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)

5. Review results of other significant reviews from regulatory agencies or other external entities

**D. Internal Auditors**
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<tbody>
<tr>
<td>1. Review and approve the charter for the Office of Audit, Risk, and Compliance, if changes are needed</td>
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<tr>
<td>2. Review the draft annual audit plan</td>
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<tr>
<td>3. Approve the annual audit plan</td>
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<tr>
<td>4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships</td>
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<tr>
<td>5. Review the results of the QAIP, including internal and external assessments</td>
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<td>6. Review completed audit reports and progress reports on executing the approved annual audit plan</td>
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<tr>
<td>7. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information</td>
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<tr>
<td>8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance</td>
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<td>9. Evaluate the Executive Director of Internal Audit’s Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation</td>
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**E. Compliance, Ethics, and Business Conduct**

1. **Require Convey commitment to ethical conduct through periodic receipt of management to periodically report reports on procedures that provide assurance that how the university’s mission, values, and codes of conduct are properly communicated to all employees**

2. **Review the programs and policies of the university designed to assure and monitor compliance**

3. **Monitor the university’s conflict of interest policies and related procedures**
1. **Purpose**

This policy outlines the policies and procedures covering the Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

It is the policy of the Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness internal control environment.

The Office of Audit, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management process, and oversees the institutional compliance program. The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit**: Provide independent, objective assurance and advisory activity designed to add value and improve university operations. It helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. **Risk Management**: Provide oversight of the enterprise risk management (ERM) program by creating and maintain the framework to effectively identify, assess, and manage risk.

3. **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

2.1 **Scope of the Office of Audit, Risk, and Compliance**

The scope of OARC work is to determine whether Virginia Tech’s risk management, internal controls, compliance activities and governance processes, as designed and represented by management, is adequate and functioning in a manner to ensure:
• Programs, plans, and strategic objectives are achieved.
• Risks are appropriately identified, managed, and considered in institutional decision making.
• Significant financial, managerial and operating information is accurate, reliable and timely.
• Compliance with policies, procedures, standards, laws, and regulations.
• Measures taken to foster continuous improvement in control processes.
• Resources are being acquired, managed, and protected in an economical, efficient, and effective manner.

2.2 Independence and Objectivity
Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Audit, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Compliance, Audit, and Risk Committee of the Board of Visitors.

All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

2.3 Authority
OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

2.4 Auditing Standards
The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

2.5 Systems Planning and Development
OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:

• Reasonable and adequate internal controls exist.
• Systems or procedural documentation is complete and appropriate.
• An adequate audit trail exists.
OARC’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.6 Responsibilities of the Executive Director of Audit, Risk, and Compliance

The Executive Director of Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of OARC to ensure that the work fulfills the purposes and responsibilities established in this policy statement. The Executive Director of Audit, Risk, and Compliance is specifically charged with the following responsibilities:

- Coordinating all auditing activities to provide a central source of information for management and the Compliance, Audit, and Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
- Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
- Establishing written policies and procedures for OARC and directing its technical and administrative functions.
- Developing, submitting for approval, and executing comprehensive risk-based annual audit plans to carry out departmental responsibilities.
- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
- Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
- Issuing an annual summary report of activities to the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
- Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
- Communicating directly with the Compliance, Audit, and Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
- Performing sufficient tests and examinations to determine and report to management, the Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective or recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

2.7 Audit Reports

OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Audit, Risk, and Compliance, depending upon the nature and
conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Compliance, Audit, and Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Audit, Risk, and Compliance may decide, with the approval of the Chair of the Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.8 Responsibility for Corrective Action
Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.9 Coordination with External Auditing Agencies
The Executive Director of Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.10 Special Projects
The Executive Director of Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Compliance, Audit, and Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures
Principal guidance and direction on how the OARC accomplishes its mission and responsibilities is provided to the audit staff through an office procedures manual. The manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The manual also provides a resource to external parties such as the Compliance, Audit, and Risk Committee of the Board of Visitors, senior management, external auditors, and quality assurance parties.
4. **Definitions**

**Abuse**
Excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Extravagant or excessive use as to abuse one’s position or authority. Abuse can occur in financial or nonfinancial settings.

**Add Value**
The internal audit function adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

**Advisory Services**
Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

**Assurance**
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

**Charter**
The charter is a formal document that defines the OARC’s purpose, authority, and responsibility. The charter establishes the office’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

**Code of Ethics**
The Code of Ethics of The Institute of Internal Auditors are principles relevant to the profession and practice of internal auditing, and rules of conduct that describe behavior expected of internal auditors. The purpose of the Code of Ethics is to promote an ethical culture in the global profession of internal auditing.

**Compliance**
Adherence to policies, plans, procedures, laws, regulations, contracts, or other requirements.

**Conflict of Interest**
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest would prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

**Control**
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.

**Control Environment**
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).

**Control Processes**
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

**Executive Director of Audit, Risk, and Compliance**
The individual that serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the IIA’s Definition of Internal Auditing, the Core Principles, the Code of Ethics, and the Standards.

**Engagement**
A specific internal audit assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

**Enterprise Risk Management**
A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

**Fraud**
The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

**Governance**
The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

**Independence**
The freedom from conditions that threaten the ability of the internal audit function to carry out internal audit responsibilities in an unbiased manner.

**Internal Audit Function**
The department, division, team of advisors, or other practitioner(s) that provides independent, objective assurance and advisory services designed to add value and improve an organization’s operations.

**International Professional Practices Framework**
The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories – (1) mandatory and (2) strongly recommended.

**Objectivity**
An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they believe in their work product and that no quality compromises are made. Objectivity requires that internal auditors do not subordinate their judgment on audit matters to others.
Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular audit. The scope can be specified by defining the physical location of the audit, the organizational units that will be examined, the processes and activities that will be included, and the time period that will be covered.

Significance
The relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors, such as magnitude, nature, effect, relevance, and impact. Professional judgment assists internal auditors when evaluating the significance of matters within the context of the relevant objectives.

Standards
A professional pronouncement that delineates the requirements for performing a broad range of internal audit activities, and for evaluating internal audit performance.

Waste
The intentional or unintentional, thoughtless or careless expenditure, consumption, mismanagement, use, or squandering of Commonwealth resources to the detriment or potential detriment of the Commonwealth. Waste also includes incurring unnecessary costs due to inefficient or ineffective practices, systems, or controls.

5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), and the Definition of Internal Auditing, revised in 2016 and effective 2017.

6. Approval and Revisions

- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.

- Revision 1
  Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public. Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.
Revision 2
Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.

Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

Revision 3
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.

Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.

Revision 4
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.

Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.

Revision 5
April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

Revision 6
Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”

Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.

Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.

Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.

Approved November 7, 2011 by the university President, Charles W. Steger.

Revision 7
Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”

Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.
• Revision 8
  Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
1. **Purpose**

This policy outlines the policies and procedures covering the University’s Internal Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

It is the policy of the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness internal control environment.
The Finance and Audit Committee of the Board of Visitors, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management adoption process, and oversees the following definition of internal auditing (from the Institute of Internal Auditors’ International Professional Practices Framework) as the purpose of the internal audit function: Internal auditing is an integral component of a university’s system of internal control and independent assurance service designed to add value and improve an organization’s ability to achieve its objectives. The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit**: Provide independent, objective assurance and advisory activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. **Risk Management**: Provide oversight of the enterprise risk management (ERM) program by creating and maintaining the framework to effectively identify, assess, and manage risk.

3. **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

### 2.1 Scope of **Internal Audit Activities, Risk, and Compliance**

The internal audit function will provide assurance engagements encompassing reviews of all university operations and activities to appraise:

- The accuracy, reliability, and timeliness of significant financial, managerial, and operating information and the adequacy of the internal controls employed over the compilation and reporting of such information is accurate, reliable and timely.
- Compliance with policies, procedures, standards, laws, and regulations.
- Whether risks are appropriately identified and managed.
- Measures taken to safeguard assets, including tests of existence and ownership.
- The adequacy, propriety, and cost-effectiveness of accounting, financial, and other controls throughout the university, as well as compliance therewith.
- Whether university resources are being acquired, managed, and protected in an economical, efficient, and effective manner.
- The achievement of programs, plans, and objectives.

### 2.2 Organizational Structure

The Finance and Audit Committee of the Board of Visitors has the responsibility to oversee and evaluate the internal audit function of the university. Accordingly, the Director of Internal Audit reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Director of Internal Audit reports administratively to the President.

#### 2.3 Independence and Objectivity

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Internal Audit has, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports...
administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Finance, Compliance, Audit, and AuditRisk Committee of the Board of Visitors. The internal audit function shall be functionally independent of all university operations.

The Director of Internal Audit or members of the department must have an impartial, unbiased attitude and avoid any conflict of interest. Members of the internal audit function shall not be assigned to operating duties except for temporary assignments as requested by the President and the university’s Chief Financial Officer and approved by the Finance and Audit Committee of the Board of Visitors. In addition, members of the internal audit function will not develop and install procedures, prepare records, make management decisions, or engage in any other activity which could be reasonably construed to compromise their independence. The Director of Internal Audit or members of the department shall not be assigned any additional supervisory or oversight responsibilities which could be reasonably construed to compromise their independence. All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

### 2.42.3 Authority

The internal audit function OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. The internal audit function OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

### 2.52.4 Auditing Standards

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and Code of Ethics, the Definition of Internal Auditing. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

Members of the internal audit function have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university. In addition, the internal audit function’s activities and conduct shall be consistent with the policies of the university.

### 2.62.5 Systems Planning and Development

The internal audit function OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:

**Charter for the University’s Internal Office of Audit Function, Risk, and Compliance**
• Reasonable and adequate internal controls exist.
• Systems or procedural documentation is complete and appropriate.
• An adequate audit trail exists.

The internal audit function’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.7.2.6 Responsibilities of the Executive Director of Internal Audit, Risk, and Compliance

The Executive Director of Internal Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of the internal audit function OARC to ensure that the audit work fulfills the purposes and responsibilities established in this policy statement.

The Executive Director of Internal Audit, Risk, and Compliance is specifically charged with the following responsibilities:

• Coordinating all auditing activities to provide a central source of information for management and the Finance, Compliance, Audit, and Audit Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
• Going beyond accounting and financial records when necessary during audit activities to obtain a thorough understanding of the activities under audit.
• Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
• Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
• Establishing written policies and procedures for the internal audit function OARC and directing its technical and administrative functions.
• Developing, submitting for approval, and executing comprehensive risk-based annual and long-range audit plans to carry out departmental responsibilities.
• Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
• Documenting appropriately the results of all audits, reviews, and evaluations performed.
• Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
• Issuing an annual summary report of audit activities to the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors.
• Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
• Establishing and maintaining a quality assurance review program Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
• Communicating directly with the Finance, Compliance, Audit, and Audit Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
• Performing sufficient tests and examinations to determine and report to management, the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective of recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

2.82.7 Audit Reports

The internal audit function OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Internal Audit, Risk, and Compliance, depending upon the nature and conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Finance Compliance, Audit, and Audit Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Internal Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Internal Audit, Risk, and Compliance may decide, with the approval of the Chair of the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.92.8 Responsibility for Corrective Action

Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Internal Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.102.9 Coordination with External Auditing Agencies

The Executive Director of Internal Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.112.10 Special Projects

The Executive Director of Internal Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Finance Compliance, Audit, and Audit Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures

Principal guidance and direction on how the internal audit function OARC accomplishes its mission and responsibilities is provided to the audit staff through the Virginia Tech Internal Audit Manual (Manual) on office procedures manual. The Manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The Manual also provides a resource to external
parties such as the Finance, Compliance, Audit, and Audit Risk Committee of the Board of Visitors, senior management, external auditors, and quality assurance parties.

4. **Definitions**

**Abuse**
Excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Extravagant or excessive use as to abuse one’s position or authority. Abuse can occur in financial or nonfinancial settings.

**Add Value**
The internal audit function adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

**Advisory Services**
Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

**Assurance**
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

**Charter**
The internal audit charter is a formal document that defines the internal audit function’s purpose, authority, and responsibility. The internal audit charter establishes the internal audit function’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

**Code of Ethics**
The Code of Ethics of The Institute of Internal Auditors are principles relevant to the profession and practice of internal auditing, and rules of conduct that describe behavior expected of internal auditors. The purpose of the Code of Ethics is to promote an ethical culture in the global profession of internal auditing.

**Compliance**
Adherence to policies, plans, procedures, laws, regulations, contracts, or other requirements.

**Conflict of Interest**
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest would prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

**Control**
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.

**Control Environment**

Charter for the University’s Internal Office of Audit Function, Risk, and Compliance
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).

**Control Processes**
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

**Executive Director of Internal Audit, Risk, and Compliance**
The individual that serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the IIA’s Definition of Internal Auditing, the Core Principles, the Code of Ethics, and the Standards.

**Engagement**
A specific internal audit assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

**Enterprise Risk Management**
A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

**Fraud**
The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

**Governance**
The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

**Independence**
The freedom from conditions that threaten the ability of the internal audit function to carry out internal audit responsibilities in an unbiased manner.

**Internal Audit Function**
The department, division, team of advisors, or other practitioner(s) that provides independent, objective assurance and advisory services designed to add value and improve an organization’s operations.

**International Professional Practices Framework**
The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories – (1) mandatory and (2) strongly recommended.
Objectivity
An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they believe in their work product and that no quality compromises are made. Objectivity requires that internal auditors do not subordinate their judgment on audit matters to others.

Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular audit. The scope can be specified by defining the physical location of the audit, the organizational units that will be examined, the processes and activities that will be included, and the time period that will be covered.

Significance
The relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors, such as magnitude, nature, effect, relevance, and impact. Professional judgment assists internal auditors when evaluating the significance of matters within the context of the relevant objectives.

Standards
A professional pronouncement that delineates the requirements for performing a broad range of internal audit activities, and for evaluating internal audit performance.

Waste
The intentional or unintentional, thoughtless or careless expenditure, consumption, mismanagement, use, or squandering of Commonwealth resources to the detriment or potential detriment of the Commonwealth. Waste also includes incurring unnecessary costs due to inefficient or ineffective practices, systems, or controls.

5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), The Institute and the Definition of Internal Auditors, issued in 2008 Auditing, revised in 2012.


6. Approval and Revisions
- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.
• Revision 1
Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.

• Revision 2
Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.
Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

• Annual review, November 5, 1998, by Office of the Executive Vice President. No revisions.

• Revision 3
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.
Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.
Approved March 29, 2004 by the Finance and Audit Committee of the Board of Visitors.

• Revision 4
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.
Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.
Approved March 14, 2005 by the Finance and Audit Committee of the Board of Visitors.

• Revision 5
April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

• Revision 6
Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”
Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.
Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.
Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.
Approved November 7, 2011 by the university President, Charles W. Steger.
Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

• Revision 7
Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”

Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.

• Revision 8
Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
Enterprise Risk Management (ERM) Program Update

SHARON KUREK
EXECUTIVE DIRECTOR OF AUDIT, RISK, & COMPLIANCE
ERM DEFINED

- A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.
2. Identify those assets (crown jewels) that are institution-specific and must be protected.

3. Engage senior leaders (risk owners) consistent with the levels of concern and the issues they deal with daily.

4. Use the results of these considerations (1-3) to develop institutional strategic risks and consider impact to the strategic plan.

1. Review strategy or strategic objectives developed in annual planning.

Source: Baker Tilly
ERM FRAMEWORK

- Organizational Objectives
- Identify & Categorize
- Assess & Prioritize
- Manage & Monitor
- Reporting & Awareness
ERM FRAMEWORK
Systemic and existential risks are uncontrollable risks that impact all of higher education and what many institutions refer to as “business model” risks.

Institutional risks are idiosyncratic to an organization and are generally caused by the inability to fulfill an institutional objective.

Unit-level risks are also idiosyncratic to an organization but generally relate to an existing, broken process.
ERM FRAMEWORK

Risk

- Organizational Objectives
- Identify & Categorize
- Assess & Prioritize
- Manage & Monitor
- Reporting & Awareness

Likelihood of Occurrence
Significance of Impact
Velocity
ERM COMMITTEE STRUCTURE

ENTERPRISE RISK MANAGEMENT FRAMEWORK

BOARD OF VISITORS

CAR COMMITTEE

PRESIDENT

AUDIT, RISK, & COMPLIANCE

EXECUTIVE STAFF (ERM COMMITTEE)

President
Executive VP and Provost
Senior VP for Operations and Admin.
VP for Advancement
Executive Director of Audit, Risk, & Compliance

VP for Finance
VP for Research and Innovation
VP for Strategic Affairs
University Legal Counsel

PRESIDENT'S LEADERSHIP TEAM (RISK ADVISORY COMMITTEE)

Executive VP and Provost
Senior VP for Operations and Admin.
VP for Advancement
VP for Human Resources
VP for IT and CIO
VP for Operations
VP for Policy and Governance
VP for Research and Innovation
Executive Director of Audit, Risk, & Compliance

VP for Strategic Affairs
VP for Student Affairs
Exec. Director of Govt. Relations
Exec. Director - Office of the Pres.
Director of Athletics
Senior AVP for Univ. Relations
CEO of Virginia Tech Foundation
University Legal Counsel

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ERM FRAMEWORK – FUTURE PHASE
NEXT STEPS

- Develop common language (shared vocabulary)
- Develop a risk portfolio
- Assess, validate, and prioritize risks
- Assign ownership and take action
Institutional Compliance Program

Virginia Tech is committed to integrity, a culture of compliance, and the promotion of the highest ethical standards for all employees. As compliance with legal and regulatory requirements continue to increase in visibility and emphasis, I am forming an Institutional Compliance Program (ICP) to promote and support a working environment which reflects this commitment. The ICP will act as a resource for Virginia Tech’s efforts regarding compliance, to help our institution proactively meet its compliance obligations, and to manage compliance risks.

The primary focus of compliance with applicable laws and regulations is in the academic and administrative units throughout the university, where the authority for policy development and the responsibility for implementation of compliance reside. The compliance framework will include members of management with responsibility for key compliance areas and other appropriate officials.

We will leverage our existing structures (including audit, enterprise risk management (ERM), hotline administration, legal counsel, and the policy office) to support compliance efforts. I have asked the Office of Audit, Risk, and Compliance to coordinate the ICP, which will be carried out by various groups as depicted below.

Institutional Compliance Function (Office of Audit, Risk, and Compliance)
The charge of the compliance function within the Office of Audit, Risk, and Compliance is to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas. While the Office of Audit, Risk, and Compliance does not own any discrete compliance subject matter area, it will assist in promoting a culture of compliance and ethical behavior by:

- Developing a compliance matrix of applicable regulations and authoritative guidance with responsible parties
- Implementing the compliance risk assessment process as a component of the ERM program
- Facilitating the university compliance and ethics hotline
- Assisting the compliance committees in their various duties
- Providing assistance in responding to external reviews and investigations

Executive Compliance Committee (ECC)
The charge of the ECC is to promote excellence in our compliance efforts to assure compliance with our legal, regulatory, and ethical responsibilities. The ECC is responsible for approving the university’s compliance priorities and has oversight responsibility for the university's compliance efforts, including fulfillment of these priorities. The ECC will also serve as the primary point of contact for the administration on organizational compliance matters with the Compliance, Audit, and Risk Committee of the Board of Visitors.
Compliance Advisory Committee (CAC)
The charge of the CAC is to assist the ECC in promoting a culture and understanding of and adherence to applicable legal and regulatory requirements. The CAC will provide compliance leadership in the university’s academic and administrative units and ensure effective communication and collaboration among those responsible for compliance by:

- Fostering communication across campus on issues related to compliance
- Maintaining a university compliance matrix
- Reviewing the results of the compliance risk assessment and proposing university priorities
- Ensuring the development and implementation of corrective action plans as developed by responsible parties and approved by senior management
- Reporting results to the ECC, including progress on plans and risks being assumed

The success of Virginia Tech’s ICP is predicated on leadership’s embrace of a culture of compliance in alignment with our strategic goals. In order to provide leadership and oversight of compliance, an overview of the compliance framework and representation on each committee is provided below.

**COMPLIANCE FRAMEWORK**

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<th>BOARD OF VISITORS</th>
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<td>PRESIDENT</td>
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<td>AUDIT, RISK, &amp; COMPLIANCE</td>
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<tr>
<td>EXECUTIVE STAFF+ COMPLIANCE COMMITTEE (ECC)</td>
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<tr>
<td>Executive VP and Provost</td>
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<tr>
<td>Senior VP for Operations and Admin.</td>
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<td>Vice President for Finance</td>
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<td>VP for IT and CIO+</td>
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<tr>
<td>Executive Director of Audit, Risk, &amp; Compliance+</td>
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<tr>
<td>VP for Policy and Governance+</td>
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<tr>
<td>VP for Research and Innovation</td>
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<tr>
<td>VP for Strategic Affairs</td>
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<td>University Legal Counsel+</td>
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**COMPLIANCE ADVISORY COMMITTEE REPRESENTATION (CAC)**

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<th>Accreditation</th>
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<td>Conflict of Interest</td>
<td>International Affairs</td>
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<td>Human Resources</td>
<td>Research</td>
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<td>Emergency Management</td>
<td>Safety and Security</td>
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<td>Equity &amp; Accessibility and Title IX</td>
<td>Student Affairs</td>
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<td>FERPA</td>
<td>Academic College</td>
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<td>Finance</td>
<td>Research Institute</td>
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<td>Government Relations</td>
<td>Policy and Governance</td>
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<tr>
<td>Health and Safety</td>
<td>University Legal Counsel</td>
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<tr>
<td>Information Technology</td>
<td>Audit, Risk, &amp; Compliance (Chair)</td>
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**DISTRIBUTED UNIVERSITY–WIDE COMPLIANCE OWNERS**
Appendix I – Committee Membership

Executive Compliance Committee (ECC)
- Executive Vice President and Provost
- Senior Vice President for Operations and Administration
- Vice President for Finance
- Vice President for Information Technology and Chief Information Officer
- Vice President for Policy and Governance
- Vice President for Research and Innovation
- Vice President for Strategic Affairs and Vice Provost for Inclusion and Diversity
- University Legal Counsel
- Executive Director of Audit, Risk, and Compliance

Compliance Advisory Committee (CAC)
- Assistant Vice President for Emergency Management
- Assistant Vice President for Environmental Health and Safety
- Assistant Vice President for Equity and Accessibility and Title IX Officer
- Assistant Vice President for Finance and University Controller
- Associate Vice President for Outreach and International Affairs
- Associate Vice President for Research Integrity and Compliance
- Senior Associate Vice President for Student Affairs
- Vice President for Human Resources
- Vice Provost for Enrollment Management
- Vice Provost for Learning Systems
- Executive Director of Government Relations
- Information Technology Security Officer
- Senior Associate Athletics Director for Internal Operations
- Deputy Chief of Police and Assistant Director of Security
- COI Officer and Director of Office of Sponsored Programs
- Associate Dean and Chief of Staff, College of Engineering
- Chief Operating Officer, Bioinformatics Institute
- Director of University Policy Development and Coordination
- Associate University Legal Counsel
- Executive Director of Audit, Risk, and Compliance (Chair)
September 22, 2017

Dear Colleague:

The purpose of this letter is to inform you that the Department of Education is withdrawing the statements of policy and guidance reflected in the following documents:

- Dear Colleague Letter on Sexual Violence, issued by the Office for Civil Rights at the U.S. Department of Education, dated April 4, 2011.

- Questions and Answers on Title IX and Sexual Violence, issued by the Office for Civil Rights at the U.S. Department of Education, dated April 29, 2014.

These guidance documents interpreted Title IX to impose new mandates related to the procedures by which educational institutions investigate, adjudicate, and resolve allegations of student-on-student sexual misconduct. The 2011 Dear Colleague Letter required schools to adopt a minimal standard of proof—the preponderance-of-the-evidence standard—in administering student discipline, even though many schools had traditionally employed a higher clear-and-convincing-evidence standard. The Letter insisted that schools with an appeals process allow complainants to appeal not-guilty findings, even though many schools had previously followed procedures reserving appeal for accused students. The Letter discouraged cross-examination by the parties, suggesting that to recognize a right to such cross-examination might violate Title IX. The Letter forbade schools from relying on investigations of criminal conduct by law-enforcement authorities to resolve Title IX complaints, forcing schools to establish policing and judicial systems while at the same time directing schools to resolve complaints on an expedited basis. The Letter provided that any due-process protections afforded to accused students should not “unnecessarily delay” resolving the charges against them.

Legal commentators have criticized the 2011 Letter and the 2014 Questions and Answers for placing “improper pressure upon universities to adopt procedures that do not afford fundamental fairness.”¹ As a result, many schools have established procedures for resolving allegations that “lack the most basic elements of fairness and due process, are overwhelmingly stacked against the accused, and are in no way required by Title IX law or regulation.”²

The 2011 and 2014 guidance documents may have been well-intentioned, but those documents have

¹ Open Letter from Members of the Penn Law School Faculty, Sexual Assault Complaints: Protecting Complainants and the Accused Students at Universities, WALL ST. J. ONLINE (Feb. 18, 2015),

² Rethink Harvard’s Sexual Harassment Policy, BOSTON GLOBE (Oct. 15, 2014) (statement of 28 members of the Harvard Law School faculty); see also ABA CRIMINAL JUSTICE SECTION TASK FORCE ON COLLEGE DUE PROCESS RIGHTS AND VICTIM PROTECTIONS, RECOMMENDATIONS FOR COLLEGES AND UNIVERSITIES IN RESOLVING ALLEGATIONS OF CAMPUS SEXUAL MISCONDUCT (2017); AMERICAN COLLEGE OF TRIAL LAWYERS, TASK FORCE ON THE RESPONSE OF UNIVERSITIES AND COLLEGES TO ALLEGATIONS OF SEXUAL VIOLENCE, WHITE PAPER ON CAMPUS SEXUAL ASSAULT INVESTIGATIONS (2017).

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The Department of Education’s mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.
led to the deprivation of rights for many students—both accused students denied fair process and victims denied an adequate resolution of their complaints. The guidance has not succeeded in providing clarity for educational institutions or in leading institutions to guarantee educational opportunities on the equal basis that Title IX requires. Instead, schools face a confusing and counterproductive set of regulatory mandates, and the objective of regulatory compliance has displaced Title IX’s goal of educational equity.

The Department imposed these regulatory burdens without affording notice and the opportunity for public comment. Under these circumstances, the Department has decided to withdraw the above-referenced guidance documents in order to develop an approach to student sexual misconduct that responds to the concerns of stakeholders and that aligns with the purpose of Title IX to achieve fair access to educational benefits. The Department intends to implement such a policy through a rulemaking process that responds to public comment. The Department will not rely on the withdrawn documents in its enforcement of Title IX.

The Department refers you to the Q&A on Campus Sexual Misconduct, issued contemporaneously with this letter, and will continue to rely on its Revised Sexual Harassment Guidance, which was informed by a notice-and-comment process and issued in 2001, as well as the reaffirmation of that Guidance in the Dear Colleague Letter on Sexual Harassment issued January 25, 2006. As always, the Department’s enforcement efforts proceed from Title IX itself and its implementing regulations.

In the forty-five years since the passage of Title IX, we have seen remarkable progress toward an educational environment free of sex discrimination. That progress resulted in large part from the vigorous enforcement of Title IX by the Office for Civil Rights at the Department of Education. The Department remains committed to enforcing these critical protections and intends to do so consistent with its mission under Title IX to protect fair and equitable access to education.

The Department has determined that this letter is a significant guidance document under the Final Bulletin for Agency Good Guidance Practices of the Office of Management and Budget, 72 Fed. Reg. 3432 (Jan. 25, 2007). This letter does not add requirements to applicable law.

Sincerely,

/s/
Candice Jackson
Acting Assistant Secretary for Civil Rights
U.S. Department of Education

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3 The Revised Sexual Harassment Guidance is available at https://www2.ed.gov/about/offices/list/ocr/docs/shguide.html.
4 The 2006 Dear Colleague Letter is available at https://www2.ed.gov/about/offices/list/ocr/letters/sexhar-2006.html.
6 34 C.F.R. § 106.1 et seq.; see also 34 C.F.R. § 668.46(k) (implementing requirements of the Violence Against Women Act).
7 If you have questions or are interested in commenting on this letter, please contact the Department of Education at ocr@ed.gov or 800-421-3481 (TDD: 800-877-8339).
Under Title IX of the Education Amendments of 1972 and its implementing regulations, an institution that receives federal funds must ensure that no student suffers a deprivation of her or his access to educational opportunities on the basis of sex. The Department of Education intends to engage in rulemaking on the topic of schools’ Title IX responsibilities concerning complaints of sexual misconduct, including peer-on-peer sexual harassment and sexual violence. The Department will solicit input from stakeholders and the public during that rulemaking process. In the interim, these questions and answers—along with the Revised Sexual Harassment Guidance previously issued by the Office for Civil Rights¹—provide information about how OCR will assess a school’s compliance with Title IX.

SCHOOLS’ RESPONSIBILITY TO ADDRESS SEXUAL MISCONDUCT

Question 1:

What is the nature of a school’s responsibility to address sexual misconduct?

Answer:

Whether or not a student files a complaint of alleged sexual misconduct or otherwise asks the school to take action, where the school knows or reasonably should know of an incident of sexual misconduct, the school must take steps to understand what occurred and to respond appropriately.² In particular, when sexual misconduct is so severe, persistent, or pervasive as to deny or limit a student’s ability to participate in or benefit from the school’s programs or activities, a hostile environment exists and the school must respond.³


² 2001 Guidance at (VII).

³ Davis v. Monroe Cty. Bd. of Educ., 526 U.S. 629, 631 (1999); 34 C.F.R. § 106.31(a); 2001 Guidance at (V)(A)(1). Title IX prohibits discrimination on the basis of sex “under any education program or activity” receiving federal financial assistance, 20 U.S.C. § 1681(a); 34 C.F.R. § 106.1, meaning within the “operations” of a postsecondary institution or school district, 20 U.S.C. § 1687; 34 C.F.R. § 106.2(b). The Supreme Court has explained that the statute “confines the scope of prohibited conduct based on the recipient’s degree of control over the harasser and the environment in which the harassment occurs.” Davis, 526 U.S. at 644. Accordingly, OCR has informed institutions that “[a] university does not have a duty under Title IX to address an incident of alleged harassment where the incident occurs off-campus and does not involve a program or activity of the recipient.” Oklahoma State University Determination Letter at 2, OCR Complaint No. 06-03-2054 (June 10, 2004); see also University of Wisconsin-Madison Determination Letter, OCR Complaint No. 05-07-2074 (Aug. 6, 2009) (“OCR determined that the alleged assault did not occur in the context of an educational program or activity operated by the University.”). Schools are responsible for redressing a hostile environment that occurs on campus even if it relates to off-campus activities. Under the Clery Act, postsecondary institutions are obliged to collect and report statistics on crimes that occur on campus, on noncampus properties controlled by the institution or an affiliated student organization and used for educational purposes, on public property within or immediately adjacent to campus, and in areas within the patrol jurisdiction of the campus police or the campus security department. 34 C.F.R. § 668.46(a); 34 C.F.R. § 668.46(c).
Each recipient must designate at least one employee to act as a Title IX Coordinator to coordinate its responsibilities in this area. Other employees may be considered "responsible employees" and will help the student to connect to the Title IX Coordinator. 

In regulating the conduct of students and faculty to prevent or redress discrimination, schools must formulate, interpret, and apply their rules in a manner that respects the legal rights of students and faculty, including those court precedents interpreting the concept of free speech.

**THE CLERY ACT AND TITLE IX**

**Question 2:**

What is the Clery Act and how does it relate to a school's obligations under Title IX?

**Answer:**

Institutions of higher education that participate in the federal student financial aid programs are subject to the requirements of the Clery Act as well as Title IX. Each year, institutions must disclose campus crime statistics and information about campus security policies as a condition of participating in the federal student aid programs. The Violence Against Women Reauthorization Act of 2013 amended the Clery Act to require institutions to compile statistics for incidents of dating violence, domestic violence, sexual assault, and stalking, and to include certain policies, procedures, and programs pertaining to these incidents in the annual security reports. In October 2014, following a negotiated rulemaking process, the Department issued amended regulations to implement these statutory changes. Accordingly, when addressing allegations of dating violence, domestic violence, sexual assault, or stalking, institutions are subject to the Clery Act regulations as well as Title IX.

**INTERIM MEASURES**

**Question 3:**

What are interim measures and is a school required to provide such measures?

**Answer:**

Interim measures are individualized services offered as appropriate to either or both the reporting and responding parties involved in an alleged incident of sexual misconduct, prior to an investigation or while an investigation is pending. Interim measures include counseling, extensions of time or other course-related adjustments, modifications of work or class schedules, campus escort services, restrictions on contact between the parties, changes in work or housing locations, leaves of absence, increased security and monitoring of certain areas of campus, and other similar accommodations.

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4 34 C.F.R. § 106.8(a).
5 2001 Guidance at (V)(C).
8 See 34 C.F.R. § 668.46.
9 See 2001 Guidance at (VII)(A).
It may be appropriate for a school to take interim measures during the investigation of a complaint. In fairly assessing the need for a party to receive interim measures, a school may not rely on fixed rules or operating assumptions that favor one party over another, nor may a school make such measures available only to one party. Interim measures should be individualized and appropriate based on the information gathered by the Title IX Coordinator, making every effort to avoid depriving any student of her or his education. The measures needed by each student may change over time, and the Title IX Coordinator should communicate with each student throughout the investigation to ensure that any interim measures are necessary and effective based on the students’ evolving needs.

GRIEVANCE PROCEDURES AND INVESTIGATIONS

Question 4:
What are the school’s obligations with regard to complaints of sexual misconduct?

Answer:

A school must adopt and publish grievance procedures that provide for a prompt and equitable resolution of complaints of sex discrimination, including sexual misconduct. OCR has identified a number of elements in evaluating whether a school’s grievance procedures are prompt and equitable, including whether the school (i) provides notice of the school’s grievance procedures, including how to file a complaint, to students, parents of elementary and secondary school students, and employees; (ii) applies the grievance procedures to complaints filed by students or on their behalf alleging sexual misconduct carried out by employees, other students, or third parties; (iii) ensures an adequate, reliable, and impartial investigation of complaints, including the opportunity to present witnesses and other evidence; (iv) designates and follows a reasonably prompt time frame for major stages of the complaint process; (v) notifies the parties of the outcome of the complaint; and (vi) provides assurance that the school will take steps to prevent recurrence of sexual misconduct and to remedy its discriminatory effects, as appropriate.

Question 5:
What time frame constitutes a “prompt” investigation?

Answer:

There is no fixed time frame under which a school must complete a Title IX investigation. OCR will evaluate a school’s good faith effort to conduct a fair, impartial investigation in a timely manner designed to provide all parties with resolution.

Question 6:
What constitutes an “equitable” investigation?

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10 2001 Guidance at (VII)(A). In cases covered by the Clery Act, a school must provide interim measures upon the request of a reporting party if such measures are reasonably available. 34 C.F.R. § 668.46(b)(11)(v).
11 34 C.F.R. § 106.8(b); 2001 Guidance at (V)(D); see also 34 C.F.R. § 668.46(k)(2)(i) (providing that a proceeding which arises from an allegation of dating violence, domestic violence, sexual assault, or stalking must “[i]nclude a prompt, fair, and impartial process from the initial investigation to the final result”).
12 2001 Guidance at (IX); see also 34 C.F.R. § 668.46(k). Postsecondary institutions are required to report publicly the procedures for institutional disciplinary action in cases of alleged dating violence, domestic violence, sexual assault, and stalking, 34 C.F.R. § 668.46 (k)(1)(i), and to include a process that allows for the extension of timeframes for good cause with written notice to the parties of the delay and the reason for the delay, 34 C.F.R. § 668.46 (k)(3)(i)(A).
13 2001 Guidance at (IX); see also 34 C.F.R. § 668.46(k)(3)(i)(A).
Answer:

In every investigation conducted under the school's grievance procedures, the burden is on the school—not on the parties—to gather sufficient evidence to reach a fair, impartial determination as to whether sexual misconduct has occurred and, if so, whether a hostile environment has been created that must be redressed. A person free of actual or reasonably perceived conflicts of interest and biases for or against any party must lead the investigation on behalf of the school. Schools should ensure that institutional interests do not interfere with the impartiality of the investigation.

An equitable investigation of a Title IX complaint requires a trained investigator to analyze and document the available evidence to support reliable decisions, objectively evaluate the credibility of parties and witnesses, synthesize all available evidence—including both inculpatory and exculpatory evidence—and take into account the unique and complex circumstances of each case.\(^\text{14}\)

Any rights or opportunities that a school makes available to one party during the investigation should be made available to the other party on equal terms.\(^\text{15}\) Restricting the ability of either party to discuss the investigation (e.g., through “gag orders”) is likely to deprive the parties of the ability to obtain and present evidence or otherwise to defend their interests and therefore is likely inequitable. Training materials or investigative techniques and approaches that apply sex stereotypes or generalizations may violate Title IX and should be avoided so that the investigation proceeds objectively and impartially.\(^\text{16}\)

Once it decides to open an investigation that may lead to disciplinary action against the responding party, a school should provide written notice to the responding party of the allegations constituting a potential violation of the school's sexual misconduct policy, including sufficient details and with sufficient time to prepare a response before any initial interview. Sufficient details include the identities of the parties involved, the specific section of the code of conduct allegedly violated, the precise conduct allegedly constituting the potential violation, and the date and location of the alleged incident.\(^\text{17}\) Each party should receive written notice in advance of any interview or hearing with sufficient time to prepare for meaningful participation. The investigation should result in a written report summarizing the relevant exculpatory and inculpatory evidence. The reporting and responding parties and appropriate officials must have timely and equal access to any information that will be used during informal and formal disciplinary meetings and hearings.\(^\text{18}\)

**INFORMAL RESOLUTIONS OF COMPLAINTS**

**Question 7:**

After a Title IX complaint has been opened for investigation, may a school facilitate an informal resolution of the complaint?

**Answer:**

If all parties voluntarily agree to participate in an informal resolution that does not involve a full investigation and adjudication after receiving a full disclosure of the allegations and their options for formal resolution and if a school determines that the particular Title IX complaint is appropriate for such a process, the school may facilitate an informal resolution, including mediation, to assist the parties in reaching a voluntary resolution.

\(^\text{14}\) 2001 Guidance at (V)(A)(1)-(2); see also 34 C.F.R. § 668.46(k)(2)(ii).
\(^\text{15}\) 2001 Guidance at (X).
\(^\text{16}\) 34 C.F.R. § 106.31(a).
\(^\text{17}\) 2001 Guidance at (VII)(B).
\(^\text{18}\) 34 C.F.R. § 668.46(k)(3)(i)(B)(3).
DECISION-MAKING AS TO RESPONSIBILITY

Question 8:

What procedures should a school follow to adjudicate a finding of responsibility for sexual misconduct?

Answer:

The investigator(s), or separate decision-maker(s), with or without a hearing, must make findings of fact and conclusions as to whether the facts support a finding of responsibility for violation of the school’s sexual misconduct policy. If the complaint presented more than a single allegation of misconduct, a decision should be reached separately as to each allegation of misconduct. The findings of fact and conclusions should be reached by applying either a preponderance of the evidence standard or a clear and convincing evidence standard.\(^\text{19}\)

The decision-maker(s) must offer each party the same meaningful access to any information that will be used during informal and formal disciplinary meetings and hearings, including the investigation report.\(^\text{20}\) The parties should have the opportunity to respond to the report in writing in advance of the decision of responsibility and/or at a live hearing to decide responsibility.

Any process made available to one party in the adjudication procedure should be made equally available to the other party (for example, the right to have an attorney or other advisor present and/or participate in an interview or hearing; the right to cross-examine parties and witnesses or to submit questions to be asked of parties and witnesses).\(^\text{21}\) When resolving allegations of dating violence, domestic violence, sexual assault, or stalking, a postsecondary institution must “[p]rovide the accuser and the accused with the same opportunities to have others present during any institutional disciplinary proceeding, including the opportunity to be accompanied to any related meeting or proceeding by the advisor of their choice.”\(^\text{22}\) In such disciplinary proceedings and any related meetings, the institution may “[n]ot limit the choice of advisor or presence for either the accuser or the accused” but “may establish restrictions regarding the extent to which the advisor may participate in the proceedings.”\(^\text{23}\)

Schools are cautioned to avoid conflicts of interest and biases in the adjudicatory process and to prevent institutional interests from interfering with the impartiality of the adjudication. Decision-making techniques or approaches that apply sex stereotypes or generalizations may violate Title IX and should be avoided so that the adjudication proceeds objectively and impartially.

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\(^\text{19}\) The standard of evidence for evaluating a claim of sexual misconduct should be consistent with the standard the school applies in other student misconduct cases. In a recent decision, a court concluded that a school denied “basic fairness” to a responding party by, among other things, applying a lower standard of evidence only in cases of alleged sexual misconduct. *Doe v. Brandeis Univ.*, 177 F. Supp. 3d 561, 607 (D. Mass. 2016) (“[T]he lowering of the standard appears to have been a deliberate choice by the university to make cases of sexual misconduct easier to prove—and thus more difficult to defend, both for guilty and innocent students alike. It retained the higher standard for virtually all other forms of student misconduct. The lower standard may thus be seen, in context, as part of an effort to tilt the playing field against accused students, which is particularly troublesome in light of the elimination of other basic rights of the accused.”). When a school applies special procedures in sexual misconduct cases, it suggests a discriminatory purpose and should be avoided. A postsecondary institution’s annual security report must describe the standard of evidence that will be used during any institutional disciplinary proceeding arising from an allegation of dating violence, domestic violence, sexual assault, or stalking. 34 C.F.R. § 668.46(k)(1)(ii).


\(^\text{21}\) 34 C.F.R. § 668.46(k)(2)(iii).

\(^\text{22}\) 34 C.F.R. § 668.46(k)(2)(iv).

\(^\text{23}\) 34 C.F.R. § 668.46(k)(2)(iv).
DECISION-MAKING AS TO DISCIPLINARY SANCTIONS

Question 9:
What procedures should a school follow to impose a disciplinary sanction against a student found responsible for a sexual misconduct violation?

Answer:
The decision-maker as to any disciplinary sanction imposed after a finding of responsibility may be the same or different from the decision-maker who made the finding of responsibility. Disciplinary sanction decisions must be made for the purpose of deciding how best to enforce the school’s code of student conduct while considering the impact of separating a student from her or his education. Any disciplinary decision must be made as a proportionate response to the violation.24 In its annual security report, a postsecondary institution must list all of the possible sanctions that the institution may impose following the results of any institutional disciplinary proceeding for an allegation of dating violence, domestic violence, sexual assault, or stalking.25

NOTICE OF OUTCOME AND APPEALS

Question 10:
What information should be provided to the parties to notify them of the outcome?

Answer:
OCR recommends that a school provide written notice of the outcome of disciplinary proceedings to the reporting and responding parties concurrently. The content of the notice may vary depending on the underlying allegations, the institution, and the age of the students. Under the Clery Act, postsecondary institutions must provide simultaneous written notification to both parties of the results of the disciplinary proceeding along with notification of the institution’s procedures to appeal the result if such procedures are available, and any changes to the result when it becomes final.26 This notification must include any initial, interim, or final decision by the institution; any sanctions imposed by the institution; and the rationale for the result and the sanctions.27 For proceedings not covered by the Clery Act, such as those arising from allegations of harassment, and for all proceedings in elementary and secondary schools, the school should inform the reporting party whether it found that the alleged conduct occurred, any individual remedies offered to the reporting party or any sanctions imposed on the responding party that directly relate to the reporting party, and other steps the school has taken to eliminate the hostile environment, if the school found one to exist.28 In an elementary or secondary school, the notice should be provided to the parents of students under the age of 18 and directly to students who are 18 years of age or older.29

24 34 C.F.R. § 106.8(b); 2001 Guidance at (VII)(A).
25 34 C.F.R. § 668.46(k)(1)(iii).
26 34 C.F.R. § 668.46(k)(2)(v). The Clery Act applies to proceedings arising from allegations of dating violence, domestic violence, sexual assault, and stalking.
27 34 C.F.R. § 668.46(k)(3)(iv).
28 A sanction that directly relates to the reporting party would include, for example, an order that the responding party stay away from the reporting party. See 2001 Guidance at vii n.3. This limitation allows the notice of outcome to comply with the requirements of the Family Educational Rights and Privacy Act. See 20 U.S.C. § 1232g(a)(1)(A); 34 C.F.R. § 99.10; 34 C.F.R. § 99.12(a). FERPA provides an exception to its requirements only for a postsecondary institution to communicate the results of a disciplinary proceeding to the reporting party in cases of alleged crimes of violence or specific nonforcible sex offenses. 20 U.S.C. § 1232g(b)(6); 34 C.F.R. § 99.31(a)(13).
29 20 U.S.C. § 1232g(d).
Question 11:

How may a school offer the right to appeal the decision on responsibility and/or any disciplinary decision?

Answer:

If a school chooses to allow appeals from its decisions regarding responsibility and/or disciplinary sanctions, the school may choose to allow appeal (i) solely by the responding party; or (ii) by both parties, in which case any appeal procedures must be equally available to both parties. 30

EXISTING RESOLUTION AGREEMENTS

Question 12:

In light of the rescission of OCR’s 2011 Dear Colleague Letter and 2014 Questions & Answers guidance, are existing resolution agreements between OCR and schools still binding?

Answer:

Yes. Schools enter into voluntary resolution agreements with OCR to address the deficiencies and violations identified during an OCR investigation based on Title IX and its implementing regulations. Existing resolution agreements remain binding upon the schools that voluntarily entered into them. Such agreements are fact-specific and do not bind other schools. If a school has questions about an existing resolution agreement, the school may contact the appropriate OCR regional office responsible for the monitoring of its agreement.

Note: The Department has determined that this Q&A is a significant guidance document under the Final Bulletin for Agency Good Guidance Practices of the Office of Management and Budget, 72 Fed. Reg. 3432 (Jan. 25, 2007). This document does not add requirements to applicable law. If you have questions or are interested in commenting on this document, please contact the Department of Education at ocr@ed.gov or 800-421-3481 (TDD: 800-877-8339).

30 2001 Guidance at (IX). Under the Clery Act, a postsecondary institution must provide simultaneous notification of the appellate procedure, if one is available, to both parties. 34 C.F.R. § 668.46(k)(2)(v)(B). OCR has previously informed schools that it is permissible to allow an appeal only for the responding party because “he/she is the one who stands to suffer from any penalty imposed and should not be made to be tried twice for the same allegation.” Skidmore College Determination Letter at 5, OCR Complaint No. 02-95-2136 (Feb. 12, 1996); see also Suffolk University Law School Determination Letter at 11, OCR Complaint No. 01-05-2074 (Sept. 30, 2008) (“[A]ppeal rights are not necessarily required by Title IX, whereas an accused student’s appeal rights are a standard component of University disciplinary processes in order to assure that the student is afforded due process before being removed from or otherwise disciplined by the University.”); University of Cincinnati Determination Letter at 6, OCR Complaint No. 15-05-2041 (Apr. 13, 2006) (“[T]here is no requirement under Title IX that a recipient provide a victim’s right of appeal.”).
COMPLIANCE, AUDIT AND RISK COMMITTEE BRIEFING- Title IX

Kay Heidbreder

University Legal Counsel
Title IX

“No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance.”
Dear Colleague Letter Office For Civil Rights - September, 2017


• Issuance of Question and Answer guidance to respond to Title IX and sexual violence complaints

• OCR to develop new regulations subject to notice and comment under APA rules and procedures.
Changes in Requirements

• Nothing in the Dear Colleague Letter requires changes in current policy.

• Permissible Changes:
  • University policy should address Freedom of Speech

  • No time frame mandated for investigation, but time frame must be reasonable.

  • Burden on the institution to gather evidence in investigation
Changes continued:

• Gag Orders prohibited

• Alternative dispute resolution is allowed in appropriate cases

• Standard of Proof can be either preponderance of evidence or clear and convincing, but must be the same in all misconduct cases

• Interim protective measures before hearing; emphasis now is that neither party can be advantaged over the other
Virginia Tech Response

Since Virginia Tech policies comply with the new Dear Colleague Letter, no changes currently planned
Discussion of Future Topics

COMPLIANCE, AUDIT, AND RISK COMMITTEE

November 5, 2017

The Chair of the Compliance, Audit, and Risk Committee will discuss agenda items for future meetings and adjourn the committee meeting.
Open Joint Session Agenda

BUILDINGS AND GROUNDS COMMITTEE
AND
COMPLIANCE AUDIT AND RISK COMMITTEE

The Inn at Virginia Tech – Solitude
9:45 a.m. – 10:00 a.m.

November 5, 2017

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<th>Agenda Item</th>
<th>Reporting Responsibility</th>
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Open Session

1. **2016 Jeanne Clery Act Report on Campus Security and Fire Safety**: The Committees will review the annual campus security and fire safety report for Virginia Tech that is compiled and published by the Virginia Tech Police Department. This annual report is required by the Higher Education Opportunity Act and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crimes Statistics Act. The purpose of the report is to provide information about security on campus, to include: campus and community crime statistics, fire statistics and safety information, policy information, safety tips, resource phone numbers, and a brief overview of the many services the university provides.
2016 Jeanne Clery Act Report

THE 2016 JEANNE CLERY ACT REPORT OF CAMPUS SECURITY AND FIRE SAFETY
Jeanne Clery was raped and murdered in her dorm room at Lehigh University in 1986. Her killer was another student. Her parents believe she would have been more cautious if she had known about other violent crimes at Lehigh.

The Clery Act is a federal law which requires higher education institutions to report crime statistics to current & prospective students & employees, amongst other things.
Clery requires Virginia Tech to include 4 general categories of offenses in our Annual Safety/Security Report:

1. Criminal offenses
2. Hate Crimes
3. Violence Against Women Act (VAWA) offenses
4. Arrests and referrals for disciplinary action

We must include in our annual crime statistics the number of all reported offenses without regard to the findings of a court, coroner or jury, or the decision of a prosecutor.
The Clery Act identifies certain crimes as “Clery reportable” crimes. They are:

- Criminal homicide: Murder, Non-negligent Manslaughter and Manslaughter by Negligence
- Sexual Assault (Sex Offenses): Rape, Fondling, Incest, Statutory Rape
- Robbery
- Aggravated assault
- Burglary
- Motor vehicle theft
- Arson
- Domestic Violence
- Dating Violence
- Stalking
- Hate crimes
- Arrests & disciplinary referrals for violations of liquor, drug, & weapons laws
The Clery Act states that an Emergency Notification (VT Alert) MUST BE sent upon confirmation of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students or employees occurring on the campus. An “immediate” threat as used here encompasses an imminent or impending threat, such as an approaching forest fire, as well as a fire currently raging in one of your buildings.

Examples:

- Outbreak of meningitis, norovirus or other serious illness
- Approaching tornado, hurricane or other extreme weather conditions
- Earthquake
- Gas leak
- Terrorist incident
- Armed intruder
- Bomb threat
- Civil unrest or rioting
- Explosion
- Nearby chemical or hazardous waste spill
The crimes identified under Clery are subject to “Timely Warnings.”

“The Clery Act requires you to alert the campus community to certain crimes in a manner that is timely and will aid in the prevention of similar crimes. Although the Clery Act doesn’t define ‘timely,’ the intent of the warning regarding a criminal incident(s) is to enable people to protect themselves. This means that a warning should be issued as soon as pertinent information is available.”
We are required to issue a timely warning “for all Clery Act crimes that occur on your Clery Act geography that are:

• reported to campus security authorities or local police agencies; and

• considered by the institution to represent a serious or continuing threat to students and employees.”
Clery directs us to consider 3 factors prior to issuing a timely warning:

1. the nature of the crime (was it a Clery Act crime?),
2. the continuing danger to the campus community, and
3. the possible risk of compromising law enforcement efforts.

The Clery Act does not specifically address the content of a timely warning, but does state “the warning should include all information that would promote safety and that would aid in the prevention of similar crimes”. Hence, the safety tips that are included in all of our timely warnings.
Clery Act - Sexual Assault and Timely Warning

Example Timely Warning

From: VTPolice@vt.edu [mailto:VTPolice@vt.edu]
Sent: Wednesday, September 6, 2017 5:21 PM
Subject: Crime Alert - Sexual Assault

On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously acquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about student crimes that occur on or near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident.

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept either alcoholic or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_involved.html

Example Timely Warning

If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol, or where a person has a disability, or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts."

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: www.stopabuse.vt.edu. The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7856
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Polizos: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6057
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

If you report a sexual assault that occurred on the Virginia Tech campus, Virginia Tech Police will investigate, provide assistance, and offer related services to support your safety and well-being. If the crime occurred in another jurisdiction, Virginia Tech Police will assist you in accessing assistance in that jurisdiction.

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Example Timely Warning

From: VTPolice@vt.edu [mailto:VTPolice@vt.edu]
Sent: Wednesday, September 6, 2017 5:21 PM
Subject: Crime Alert - Sexual Assault

On Tuesday, September 5, 2017, the Virginia Tech Police Department took a report of a sexual assault which occurred in the early morning hours of September 4, 2017 at 600 Washington Street S.W., Payne Hall. The survivor and suspect are both Virginia Tech students, who were previously unacquainted.

This information is being released in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. The Clery Act requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on and near their respective campuses, including timely warnings of crimes that may represent a serious or ongoing threat to the safety of students or employees.

The Virginia Tech Police Department reminds all community members of the following information about sexual assault. Note that this information is general in nature and does not necessarily relate to any specific incident:

According to many published reports, any college community member might become the target of a sexual assault regardless of gender identity or sexual orientation.

Survivors of a sexual assault are never responsible for the behavior of the suspect nor the harm done to them by the suspect.

The most common type of sexual assault is not by a stranger but by someone the survivor knows, typically a date or acquaintance.

Alcohol and drugs are often used to create vulnerability to sexual assault. Studies of sexual assault incidents show a high correlation between acquaintance rape and drug/alcohol usage. Be alert to people pressuring you or others to use alcohol or other drugs. Be alert to people pressuring you or others to accept either alcoholic or non-alcoholic drinks prepared by others. If you do not feel comfortable accepting a drink you did not prepare yourself, do not do so.

Trust your instincts. If you feel uneasy or sense something is wrong, do what you can to get yourself and those who may be with you out of that situation or call for assistance.

Make a plan in advance for a safe means of getting home. Use and encourage others to have a companion or a safe means of getting home, i.e., a trusted friend, taxi, or Safe Ride if available.

Be active in supporting a safe and respectful community. If you see others engaging in disrespectful or inappropriate actions, speak up and get involved, or contact someone else to assist. For more information, see: http://stopabuse.vt.edu/Get_Involved.html
If you engage in sexual activity, be sure you understand your partner's limits, and communicate your own limits clearly. Don't engage in sexual activities without affirmative consent. The Hokie Handbook defines consent as "knowing, voluntary, and clear permission by word or action, to engage in mutually agreed upon sexual activity. The existence of consent is based on the totality of circumstances, including the context in which the alleged consent occurred. Silence does not necessarily constitute consent and coercion, force, or threat of either party invalidates consent. Consent cannot be given where a person is incapacitated due to drugs or alcohol; or where a person has a disability; or is not of legal age to consent as defined by law. Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity. Consent can be withdrawn at any time. Previous relationships or prior consent cannot imply consent to future sexual acts".

If you have imminent concerns for the safety of others, call the police to ask for assistance.

If you are sexually assaulted, you have several options. Please see related information at this website: [www.stopabuse.vt.edu](http://www.stopabuse.vt.edu). The website has guidance for filing anonymous or formal reports. In addition, assistance is available through the following resources:

- Women's Center at Virginia Tech: 540-231-7806
- Women's Resource Center of the New River Valley: 540-639-1123
- Kelly Oaks: Title IX Coordinator: 540-231-8771
- Katie Polidoro: Deputy Title IX Coordinator: 540-231-1824
- Cook Counseling Center: 540-231-6557
- Dean of Students Office: 540-231-3787
- Virginia Tech Police Department: 540-382-4343

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Open Session Agenda

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

Solitude Room, The Inn at Virginia Tech
8:15 a.m. – 11:15 a.m.

November 6, 2017

<table>
<thead>
<tr>
<th>Agenda Item</th>
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<tbody>
<tr>
<td>1. Motion to Reconvene in Open Session</td>
<td>Ms. James</td>
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<tr>
<td>2. Opening Remarks</td>
<td>Mr. Valeiras</td>
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<td>3. Consent Agenda</td>
<td>Mr. Valeiras</td>
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<tr>
<td>a. Approval of Items Discussed in Closed Session</td>
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<tr>
<td>b. Approval of Minutes of the Sept. 11, 2017 Meeting</td>
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<td>c. Update on Advancement</td>
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<td>d. Annual Write-off of Delinquent Accounts</td>
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<td>* e. Approval of Pratt Fund Program and Expenditures Report</td>
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<tr>
<td>4. Report on Investment of Nongeneral Funds</td>
<td>Mr. Shelton</td>
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<td>5. Annual Report on Research</td>
<td>Mr. Shelton, Dr. Mayer</td>
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<tr>
<td>6. Annual Report on the University’s Student Financial Aid Resources</td>
<td>Mr. Shelton, Mr. Hodge, Dr. Havens</td>
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<td>7. Report on Cost Containment and Efficiencies</td>
<td>Mr. Shelton</td>
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<td>8. Presentation on Resource Development</td>
<td>Mr. Shelton, Mr. Hodge</td>
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<tr>
<td>9. Annual Report on University Debt Ratio and Debt Capacity</td>
<td>Mr. Shelton, Mr. Broyden, Mr. Cusimano</td>
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<tr>
<td>* 10. Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine</td>
<td>Mr. Shelton, Mr. Hodge</td>
</tr>
<tr>
<td>* 11. Approval of Year-to-Date Financial Performance Report (July 1, 2017 – September 30, 2017)</td>
<td>Mr. Hodge, Mr. Broyden</td>
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<tr>
<td>12. Other Business</td>
<td>Mr. Valeiras</td>
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* Requires full Board approval.
Finance Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Opening Remarks**

3. **Consent Agenda:** The Committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. Approval of Items Discussed in Closed Session.
   
   b. Approval of Minutes of the September 1, 2017 Meeting
   
   c. Update on Advancement: Advancement will provide quarterly updates to the Committee on their fundraising efforts.
   
   d. Annual Write-off of Delinquent Accounts: As of June 30, 2017, the amount of write-offs of delinquent accounts totaled $326,653 which represents 0.03 percent of the 2016 annual operating revenues of $1.02 billion. This current year write-off is consistent with the total write-off amounts in recent years.
   
   e. Approval of Pratt Fund Program and Expenditure Report: The Pratt Fund provides funding for programs in both the College of Engineering and Department of Animal Nutrition in the College of Agriculture and Life Sciences. For fiscal year 2016-17, the College of Engineering had total expenditures of $961,141 and the Animal Nutrition had total expenditures of $849,745.

4. **Report on Investment of Nongeneral Funds:** The Committee will receive a report on the investment of nongeneral funds.

5. **Annual Report on Research:** The Committee will receive a report from the Vice President for Research and Innovation on the research activities at Virginia Tech.

6. **Annual Report on the University’s Student Financial Aid Resources:** The Committee will receive a comprehensive report on the university’s scholarship and financial aid program. In its Management Agreement with the Commonwealth, the
university affirmed its commitment to increase the support for student financial aid. The university continues to proactively work to ensure access and affordability. The amount of total student financial aid awarded increased from $446.2 million in fiscal year 2016 to $462.2 million in fiscal year 2017.

7. **Report on Cost Containment and Efficiencies:** The Committee will receive a presentation highlighting current cost containment efficiencies and related metrics, as well as future cost containment opportunities. The university will review with the Committee plans for future reporting of efficiency initiatives to the Board.

8. **Presentation on Resource Development:** The Committee will receive information on the resource development scenarios and projections developed by the university.

9. **Annual Report on University Debt Ratio and Debt Capacity:** The Committee will receive a report on the university’s debt ratio and debt capacity. At the conclusion of fiscal year 2016-17, outstanding long-term debt of the university totaled $494.2 million with a debt ratio of 3.67 percent. The university proposes the continuation of the five percent cap on the debt ratio for future years.

10. **Resolution to Approve Integration of the Virginia Tech Carilion School of Medicine:** The Committee will review for approval a resolution for the integration of the Virginia Tech Carilion School of Medicine.

* 11. **Approval of Year-to-Date Financial Performance Report (July 1, 2017 – September 30, 2017):** The Committee will review for approval the Year-to-Date Financial Performance Report for July 1, 2017 – September 30, 2017. For the first quarter, budget adjustments were made to reflect revisions to projected revenues and expenditures. The annual tuition and fees budget was increased by $10.3 million for the finalization of the budgets for tuition and fees, driven by higher than projected enrollment for Fall 2017.

12. **Other Business:** The Committee will discuss other topics as needed.

*Requires full Board approval.*
Opening Remarks
Consent Agenda

The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

a. Approval of Items Discussed in Closed Session
b. Approval of Minutes of the Sept. 11, 2017 Meeting
c. Update on Advancement
d. Annual Write-off of Delinquent Accounts

* e. Approval of Pratt Fund Program and Expenditures Report

*Requires full Board approval
2. **Opening Remarks**

3. **Consent Agenda:** The Committee considered for approval the items listed on the Consent Agenda.

   a. Approval of Items Discussed in Closed Session

   b. Approval of Minutes of the June 5, 2017 Meeting

   * c. Approval of Resolution to Revise Policy on Commemorative Tributes: The university updated the policy to add the Vice Provost for Inclusion and Diversity to the Commemorative Tributes Committee.

   The Committee approved the items listed on the Consent Agenda and recommended the resolution to Revise the Policy on Commemorative Tributes to the full Board for approval.

4. **Update on Advancement:** The Committee received a report from University Advancement on the fundraising efforts including a comparison of results since the launch of the new Advancement model. The three broad areas that comprise Advancement are - Philanthropy, Branding, and Engagement. Total new gifts and commitments for fiscal year 2017 were approximately $162.3 million, an increase of 61.6 percent and total cash was nearly $125 million, an increase of 23.2 percent. Annual Giving was approximately $22.5 million with more than 28,500 donors contributing to the Annual Fund. The Committee has set a goal of 100 percent Board participation in the annual fund for the coming year.

5. **Review and Acceptance of the Implementation of Recommendations from the JLARC Study on Higher Education:** The Committee received a report on the implementation of JLARC recommendations to be addressed by the Board of Visitors. The university has implemented all eight recommendations proposed in the 2017 Appropriations Act. This report focused on the results of the Span of Control Study conducted by the consultant and university action plans to address related recommendations. The Span of Control study, conducted by Sibson Consulting, reported that industry standards establish an overall average span of control between 3.5 and 4.5 employees per supervisor. Virginia Tech’s average of 3.7 employees per supervisor for the non-academic units, puts Virginia Tech within industry standards. The report provided recommendations for improvements in organizational structure. Virginia Tech is in the process of implementing several
key recommendations and analyzing the remaining recommendations for implementation.

The Committee accepted the report on the implementation of JLARC recommendations from the JLARC Study on Higher Education.

6. **Update on the Virginia Tech India Research and Education Forum:** At the March 2016 Board meeting, the Committee reviewed and approved an affiliation agreement for the Virginia Tech India Research and Education Forum (VTIREF). In response to the Committee’s request, this presentation provided an update on the progress of the VTIREF activities since its formation in 2016. The Committee asked for a progress report on the financial aspects of the VTIREF next year.

7. **Review and Acceptance of the Update on Virginia Tech - Applied Research Corporation:** The Committee reviewed and approved a resolution during its November 2016 meeting authorizing the university to forgive and discharge a loan to the Virginia Tech - Applied Research Corporation (VT-ARC) in the amount of $2 million. The resolution required the VT-ARC to develop a business plan to strengthen its financial and operational activities going forward. This report provided an update on the status of the VT-ARC business plan efforts since the November 2016 meeting. Management has determined that the VT-ARC business plan is prepared in an appropriate manner and is reasonable. Thus, the university plans to discharge the loan, consistent with the November 2016 resolution.

The Committee accepted the report on the Update on the Virginia Tech – Applied Research Corporation.

8. **Fall 2017 Enrollment – Status and Review of Estimated Financial Impact:** The Committee received a presentation on the estimated financial impact of Fall 2017 enrollment. Virginia Tech will experience a positive enrollment variance in Fall 2017. The university plans to allocate a portion of the funds towards the instructional costs and will recognize the revenue increase in base revenues in next year’s budget.

* 9. **Approval of Year-to-Date Financial Performance Report (July 1, 2016 – June 30, 2017):** The Committee reviewed for approval the Year-to-Date Financial Performance Report for July 1, 2016 – June 30, 2017. The university successfully closed its fiscal year in accordance with guidance and requirements of the Commonwealth. The auxiliary enterprises achieved the annual revenue budget,
while expenditures were lower than projected due to the timing of operating expenditures and projects that were initiated but incomplete at year-end.

The Committee recommended the Year-to-Date Financial Performance Report to the full Board for approval.

* 10. **Approval of Virginia Tech Carilion Research Institute Biosciences Addition 9(d) Financing Resolution:** The Committee reviewed for approval a financing resolution for the Virginia Tech Carilion Research Institute Biosciences Addition through the State’s 9(d) Virginia College Building Authority pooled bond program. The Virginia Tech Carilion Research Institute Biosciences Addition has been authorized by the state to be financed for up to $23.793 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The Committee recommended the Virginia Tech Carilion Research Institute Biosciences Addition 9(d) Financing Resolution to the full Board for approval.

11. **Virginia Tech Carilion School of Medicine Integration – Financial Aspects:** The Board of Visitors received an overview on the progress of integration of Virginia Tech Carilion School of Medicine (VTCSOM) at the Academic, Research, and Student Affairs Committee. This agenda item provided an opportunity for management to address any further questions on the financial aspects of the VTCSOM Integration.

12. **Other Business:** The Committee discussed other topics including topics for future committee agendas. The Committee asked management to start discussions on tuition and fee in preparation for the final tuition and fee resolution at the March, 2017 meeting.

**Joint Open Session with the Buildings and Grounds Committee**

**Board Members Present:** Ms. Greta Harris, Mr. C.T. Hill, Ms. Anna James, Ms. Tish Long, Mr. Robert Mills, Ms. Debbie Petrine, Mr. Mike Quillen, Dr. Hans Robinson-faculty representative, Mr. Wayne Robinson, Mr. Dennis Treacy, Mr. Horacio Valeiras

**VPI & SU Staff:** Mr. Mac Babb, Mr. Bob Broyden, Mr. Jim Buckwalter, Ms. D'Elia Chandler, Mr. John Cusimano, Mr. Brian Daniels, Dr. John Dooley, Mr. Kevin Foust, Dr. Lance Franklin, Dr. Mike Friedlander, Mr. Mark Guess, Dr. Lee Hawthorne, Mr. Jim Hillman, Mr. Tim Hodge, Dr. Chris Kiwus, Dr. Theresa Mayer, Ms. Robin McCoy, Ms.
1. **Consent Agenda**: The Committee considered the following item listed on the Consent Agenda.

   d. **Update on the 2018-2024 Capital Outlay Plan**: At its April 2017 meeting, the Committees approved the university’s list of potential projects for inclusion in the 2018-2024 Capital Outlay Plan and authorized the university to develop and submit a final plan to the state in accordance with future guidance from the state and based on the projects in the approved list. The university proceeded accordingly and met the state’s July 2017 deadline for submission of the plan. Based on the instructions received from the state and consistent with the Board approved Six-Year Capital Outlay Plan, the university submitted a list of projects requesting some portion of General Fund resources in their budget. This report provided the list of projects ranked in priority order submitted to the state, the state capital budget review and approval process, and the list of Nongeneral Fund Projects included in the Six-Year Capital Outlay Plan for 2018-2024.

   The Committees approved the Consent Agenda, which included a report on the Update of the 2018-2024 Capital Outlay Plan.

* 2. **Approval of Resolution for Capital Lease for Applied Projects Building in the Corporate Research Center**: The Committees reviewed a resolution for the university to enter into a capital lease with the Virginia Tech Foundation for the Applied Projects Building in the Corporate Research Center. The planned building is approximately 45,000 gross square feet of office, laboratory, and applied projects research space to support research and experiential learning programs in the areas of economic, homeland, and national security for a total project cost of $8.4 million.

   The Committees recommended the Resolution for a Capital Lease for the Applied Projects Building in the Corporate Research Center to the full Board for approval.

* 3. **Approval of Resolution for Capital Lease for Virginia Tech Transportation Institute Intern Park Facility**: The Committees reviewed a resolution for the
university to enter into a capital lease with Virginia Tech Foundation for the Virginia Tech Transportation Institute (VTTI) Intern Park Facility. The project is an element of the larger $78.4 million Intelligent Infrastructure and Human-Centered Communities initiative approved by the Board at the April, 2017 meeting. The Intern Park is designed as an interdisciplinary advanced-learning facility and includes flexible studio space and multiple garage and shop facilities equipped with state-of-the-art tooling with a total project cost of $2.5 million.

The Committees recommended the Resolution for a Capital Lease for the Virginia Tech Transportation Institute Intern Park Facility to the full Board for approval.

4. Approval of Resolution for Dietrick Renovation and Plaza Improvements: The Committees reviewed a resolution for Dietrick Hall first floor renovation and plaza improvements. The project includes inserting a modern food service venue and adding 200 indoor seats to the building and making improvements to the outdoor plaza to create additional outdoor seating for dining customers, serve as informal gathering spaces for the campus community, and support special event activities. The total project costs for the building renovations and plaza improvements is $7 million.

The Committees recommended the Resolution for the Dietrick Renovation and Plaza Improvements to the full Board for approval.

There being no further business, the meeting adjourned at 11:30 a.m.

*Requires full Board approval.*
The Office of University Advancement continues its efforts to support the work of the university through engagement, communications and garnering philanthropic support. This report summarizes the fundraising results for the first quarter of fiscal year 2018 (through September 2017) and recent activities related to the launch of the university’s new brand.

FUNDRAISING UPDATE

- New Gifts and Commitments (NG&C) for the first quarter of fiscal year 2018 is just over $10.4 million. We anticipate an upswing in support as we get further into the fiscal year.
- The private gift income (Cash) total is approximately $12 million for the first three months of fiscal year 2018.

BRAND LAUNCH

On Tuesday, September 26, 2017, University Relations publicly launched the next phase of the brand refresh project, culminating with the release of the university’s new academic mark. Advance notices announcing the new mark were sent to key constituents and a marketing blitz was generated campus-wide. We are working aggressively to get the word out and a special website has been created to describe the process and provide information on the brand for all of our audiences: https://vt.edu/brand.html.

CAMPAIGN PLANNING

Planning for the university’s next comprehensive campaign continues. Michael Moyer, Associate Vice President of Development for Colleges, has been named the campaign director. The immediate next steps are to finalize the campaign plan, determine priorities, and recruit the campaign leadership and volunteers. This is scheduled to occur throughout the next quarter.
Overview

Current accounts receivable are generated by several components within the university as part of the annual operating activities. Student accounts receivable and the receivables generated through the sponsored research program represent the largest components of the total receivables. Current and noncurrent notes receivable are generally comprised of student loan receivables administered by the university. To properly account for and control these assets, the university uses a combination of centralized and decentralized systems.

The Bursar’s Office is responsible for the centralized accounts receivable system operation and monitoring the activities of the decentralized operations through reviews of reports and discussions with personnel who have been delegated the responsibility for billing and collecting accounts. The Bursar’s Office is also responsible for managing the collection process for all delinquent accounts. Information from the receivable systems is consolidated quarterly by the Controller’s Office and reported to senior management and the State Comptroller. The quarterly report uses a combination of narratives, tables, and graphs to report receivables, analyze trends, and identify areas where emphasis or action is needed. The Controller’s Office is responsible for the implementation of corrective action to ensure that the receivables are properly managed.

Composition and Aging of the Receivables

Accounts receivable: Attachment A provides the composition of the current gross receivables at June 30, 2017, with comparative data for the previous year. Attachment B provides a graph for the aging analysis of the gross receivables at June 30, 2017, with comparative data for the previous three years. The total current receivables write-offs for these four years are also overlaid on this graph as another way to put them in perspective.

Notes receivable – from students: Federal and Institutional (issued by Virginia Tech from gifts and donated funds designated to be used for loans) Loans to students require the execution of a promissory note. These loan receivables are repaid over 10 or more years after a student’s last enrollment at the university and the amount due in the next 12 months is classified as a current notes receivable for the university’s financial statements.

Attachment F provides the composition of the total gross federal and institutional student loan receivables at June 30, 2017, with comparative data for the previous year.
Collection Efforts and Write-offs

Because of the nature of the accounts receivables, their impact on the university’s operating budget, and the university’s aggressive policy for collecting delinquent accounts, the annual write-off of uncollectible accounts is relatively small. The average annual write-off for accounts receivable for the past three years is $704,748. The fiscal year 2017 write-off total of $326,653 represents only 0.03 percent (less than one tenth of one percent) of the annual operating revenues\(^1\) per the audited financial statements for fiscal year 2016.

There were no sponsored project receivables to be written off for fiscal year 2017.

Various techniques are used for collecting delinquent accounts receivables depending on the customer and type of account. For example, students must pay past due amounts before they are allowed to enroll for the next school term. Other delinquent accounts are placed with commercial collection agencies and the State Attorney General’s Office for collection. The State Comptroller provides guidance on collection policies and procedures, and the university generally complies with the State Comptroller’s recommendations, except where improved practices have been implemented under the Restructuring Act.

Accounts Receivable Written Off at June 30, 2017

As authorized by a resolution passed by the Board of Visitors on August 13, 1976, the Vice President for Finance and Chief Financial Officer and the Assistant Vice President for Finance and University Controller periodically review the university’s accounts and notes receivable. The review is performed to determine those delinquent accounts that are deemed to be uncollectible. Subsequently, the accounts are written off the university’s records in accordance with generally accepted accounting practices. However, such accounts are not discharged or forgiven (with limited exceptions such as bankruptcies, death, etc.), and the university continues to track these accounts and sometimes collects portions of these accounts after being written off.

Normally, accounts are written off at the close of the fiscal year. For the fiscal year ended June 30, 2017, the accounts receivable written off totaled $326,653. The decrease in write-off of $226,168 over prior year is primarily the result of a decrease in Sponsored Program write-offs compared to the two accounts for Theta Tech and NJ Economic Development written off last year. See Attachment C for a summary of the accounts receivable written off at June 30, 2017, with comparative data for the two previous fiscal years.

For each accounts receivable written off, appropriate collection procedures were utilized. Further collection efforts were not justified for various reasons such as bankruptcies, the inability to locate the debtor, and the cost versus the benefit for small receivable amounts. As shown in Attachment D, the $326,653 write-off total consists of 873 customers with an average account value of $374. In fact, as shown on Attachment E, of the total number of accounts written off, 64.3 percent (561) were valued at less than $100, and these low dollar accounts represent only 7.4 percent of the total dollar value of the write-offs.

\(^1\) Operating revenue for FY16 of $1,020,613,000 was used for this calculation.
Notes Receivable – From Students Written Off at June 30, 2017

Additionally, the total of notes receivable written off at the close of the fiscal year included $18,687 of the institutional student loan portfolio. Institutional student loans are subject to the same collection techniques as other university receivables. For each loan written off, appropriate collection procedures were utilized. The notes receivable write-off consists of four loans, past due 900 or more days, with an average loan balance of $4,672. Attachment F provides the composition of notes receivable at year end. The institutional student loans are most often awarded to students with financial need who have exhausted other avenues of financial aid. Since these are long-term loan programs, issued to borrowers with limited resources, generally we have allowed more time before deeming the loan uncollectible and writing these amounts off.

Federal notes receivable are issued from funds received from the federal Department of Education over many previous years for the Perkins and Health Professions Student Loan programs, and from required matching contributions from the university. Again, the same collection procedures are followed for these loans. When these loans are deemed to be uncollectible Federal regulations require that Perkins loans be assigned and returned to the Department of Education for additional collection efforts and final resolution.

State Management Standards

The university’s Management Agreement under the Restructured Higher Education Financial and Administrative Operations Act includes several financial and administrative performance standards. The university must achieve compliance with all of these performance standards to retain the financial benefits provided under the Management Agreement. There are two management standards related to accounts receivable, and both are calculated annually. The two standards are:

a. A four quarter average past due rate of 10 percent or less on receivables 121 days or more past due as a percentage of all receivables.

b. An average past due rate of 10 percent or less on Federal student loans.

The university is currently in compliance with both standards. As of June 30, 2017, the average past due rate on current receivables 121 days or more past due is 1.29 percent for the four quarters ended and the Federal Perkins Student Loan default rate is 1.85 percent.
### Composition of Gross Accounts and Notes Receivable

**As of June 30, 2016 and 2017**

**(Dollars in Thousands)**

<table>
<thead>
<tr>
<th>Accounts Receivable:</th>
<th>June 30, 2017</th>
<th>Percent</th>
<th>June 30, 2016</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Accounts</td>
<td>$2,567</td>
<td>4.3%</td>
<td>$1,983</td>
<td>3.4%</td>
</tr>
<tr>
<td>Sponsored Programs</td>
<td>40,830</td>
<td>69.2%</td>
<td>44,295</td>
<td>76.7%</td>
</tr>
<tr>
<td>Electric Service</td>
<td>993</td>
<td>1.7%</td>
<td>921</td>
<td>1.6%</td>
</tr>
<tr>
<td>Parking Service</td>
<td>106</td>
<td>0.2%</td>
<td>88</td>
<td>0.2%</td>
</tr>
<tr>
<td>Telecommunications (CNS)</td>
<td>61</td>
<td>0.1%</td>
<td>12</td>
<td>0.0%</td>
</tr>
<tr>
<td>CPE and IVTSCC</td>
<td>524</td>
<td>0.9%</td>
<td>398</td>
<td>0.7%</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>426</td>
<td>0.7%</td>
<td>409</td>
<td>0.7%</td>
</tr>
<tr>
<td>Equine Medical Center</td>
<td>286</td>
<td>0.5%</td>
<td>220</td>
<td>0.4%</td>
</tr>
<tr>
<td>Short Term Loans/Notes</td>
<td>18</td>
<td>0.0%</td>
<td>9</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other Receivables</td>
<td>13,165</td>
<td>22.4%</td>
<td>9,403</td>
<td>16.3%</td>
</tr>
<tr>
<td><strong>Total Accounts Receivables</strong></td>
<td><strong>$58,976</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>$57,738</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes Receivable</th>
<th>June 30, 2017</th>
<th>Percent</th>
<th>June 30, 2016</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Loans - Perkins &amp; HPSL</td>
<td>$14,620</td>
<td>88.0%</td>
<td>$15,454</td>
<td>88.9%</td>
</tr>
<tr>
<td>Institutional Loans</td>
<td>1,986</td>
<td>12.0%</td>
<td>1,926</td>
<td>11.1%</td>
</tr>
<tr>
<td><strong>Total Notes Receivable</strong></td>
<td><strong>$16,606</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>$17,380</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

---

1 Continuing and Professional Education / Inn at Virginia Tech & Skelton Conference Center
Aging of Current Gross Accounts Receivable
From June 30, 2014 to June 30, 2017
(Dollars in Thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables Not Past Due</td>
<td>$52,353</td>
<td>$52,618</td>
<td>$50,117</td>
<td>$66,239</td>
</tr>
<tr>
<td>1 - 120 Days Past Due</td>
<td>$4,694</td>
<td>$3,968</td>
<td>$3,424</td>
<td>$3,948</td>
</tr>
<tr>
<td>121 to Over 1 Year Past Due</td>
<td>$1,929</td>
<td>$1,152</td>
<td>$1,715</td>
<td>$2,824</td>
</tr>
<tr>
<td>Total Gross Receivables</td>
<td>$58,976</td>
<td>$57,738</td>
<td>$55,256</td>
<td>$73,011</td>
</tr>
<tr>
<td>Write-Offs</td>
<td>$327</td>
<td>$553</td>
<td>$1,235</td>
<td>$722</td>
</tr>
</tbody>
</table>
# Current Accounts Receivable Write-Offs for June 30, 2017 with Comparison to 2016 and 2015

(In whole dollars)

<table>
<thead>
<tr>
<th>Accounts Receivable</th>
<th>June 30, 2017</th>
<th>June 30, 2016</th>
<th>June 30, 2015</th>
<th>Three Year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Accounts</td>
<td>$134,629</td>
<td>$178,943</td>
<td>$252,868</td>
<td>$188,813</td>
</tr>
<tr>
<td>Sponsored Programs</td>
<td>-</td>
<td>138,611</td>
<td>771,259</td>
<td>303,290</td>
</tr>
<tr>
<td>Electric Service</td>
<td>10,889</td>
<td>16,726</td>
<td>12,777</td>
<td>13,464</td>
</tr>
<tr>
<td>Parking Services</td>
<td>20,198</td>
<td>16,616</td>
<td>21,338</td>
<td>19,384</td>
</tr>
<tr>
<td>Telecommunications (CNS)</td>
<td>-</td>
<td>74</td>
<td>92</td>
<td>55</td>
</tr>
<tr>
<td>CPE and IVTSCC †</td>
<td>-</td>
<td>939</td>
<td>1,284</td>
<td>741</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>71,397</td>
<td>126,105</td>
<td>107,779</td>
<td>101,760</td>
</tr>
<tr>
<td>Equine Medical Center</td>
<td>21,925</td>
<td>31,866</td>
<td>19,653</td>
<td>24,481</td>
</tr>
<tr>
<td>Short Term Loans/Notes</td>
<td>5,999</td>
<td>2,229</td>
<td>2,109</td>
<td>3,446</td>
</tr>
<tr>
<td>Other Receivables</td>
<td>61,616</td>
<td>40,711</td>
<td>45,612</td>
<td>49,313</td>
</tr>
<tr>
<td><strong>Total Write-Offs</strong></td>
<td><strong>$326,653</strong></td>
<td><strong>$552,820</strong></td>
<td><strong>$1,234,771</strong></td>
<td><strong>$704,748</strong></td>
</tr>
</tbody>
</table>

1 Continuing and Professional Education / Inn at Virginia Tech & Skelton Conference Center

Presentation Date: November 06, 2017
Stratification of Current Accounts Receivable Write-Offs for Fiscal Year 2017

Total Number of Accounts - 873

Total Dollar Value - $326,653

Presentation Date: November 6, 2017
In 1975, the university received a significant bequest from the estate of Mr. John Lee Pratt of Stafford County, following his death on December 20, 1975. The bequest was divided equally into two distinct parts, one to support Animal Nutrition and one to support the College of Engineering. According to the will, the bequest for Animal Nutrition was to be used to promote the study of animal nutrition by supplementing salaries, providing equipment and materials to be used for experiments in feeding and in the preparation of feeds for livestock and poultry, and publishing and disseminating the research results of the studies. The will provided that the bequest for the College of Engineering should be used to support research and scholarships.

Distributions of the Pratt Estate were received in several installments: $9,561,819 in 1975, $1,330,000 in 1977, $47,000 in 1979, and $30,164 in 1981, for a total of $10,968,983. Over the years, the Pratt endowment has grown to $46.49 million, as of June 30, 2017. The following paragraphs summarize some of the major accomplishments of the College of Engineering and the Animal Nutrition Programs that are directly tied to the funding provided by the Pratt estate.

When the Pratt Endowment was originally established, the College of Engineering was in the early stages of becoming established as a nationally recognized leader in engineering education. The Pratt Endowment has played a significant role over the years in allowing the College to enrich its pool of students and to offer additional international study opportunities to students and faculty.

The expenditure of income funds from the Pratt Endowment provides an unusual opportunity to support an animal nutrition program of high quality. Use of these endowment earnings has concentrated on enhancing research and educational opportunities beyond what departments could do with state and federal funding. The main funding strategy remains with strong support for Ph.D. training, direct research support, scientific equipment, and visiting professors that stimulate and inspire the faculty and students engaged in nutrition research.

**RECOMMENDATION:**

That the 2016-17 Pratt Funds Activity Statements for Animal Nutrition and the College of Engineering be approved.

November 6, 2017
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ENGINEERING

Income

Balance, July 1, 2016 $  55,463
Endowment Income for 2016-17  958,801

Total Available $1,014,264

Expenditures*

Undergraduate Scholarships $488,044
Undergraduate International Scholarships 60,000
Graduate International Scholarships 29,496
Graduate Research Scholarships 87,600
Graduate Fellowships 135,137
Graduate Tuition Scholarships 37,864
Graduate Recruitment for Research Programs 123,000

Total Expenditures $961,141

Balance at June 30, 2017 to be carried to 2017-18 $  53,123

*See Attachment A for Engineering programs supported by Pratt Funds.
PRATT FUNDS ACTIVITY STATEMENT
For the Year Ended June 30, 2017
ANIMAL NUTRITION

Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance, July 1, 2016</td>
<td>$ (13,699)</td>
</tr>
<tr>
<td>Endowment Income for 2016-17</td>
<td>930,498</td>
</tr>
</tbody>
</table>

Total Available $916,799

Expenditures*

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Student Scholars</td>
<td>$ 453,848</td>
</tr>
<tr>
<td>Nutrition Program Support Personnel</td>
<td>164,997</td>
</tr>
<tr>
<td>Undergraduate Scholarships &amp; Research</td>
<td>158,150</td>
</tr>
<tr>
<td>Scientific Equipment &amp; Supplies</td>
<td>33,776</td>
</tr>
<tr>
<td>Visiting Scholars &amp; Seminars</td>
<td>38,974</td>
</tr>
<tr>
<td>Research Publications</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Expenditures $849,745

Balance at June 30, 2017 to be carried to 2017-18 $ 67,054

*See Attachment B for Animal Nutrition Programs supported by Pratt Funds.
PRATT FUNDS: College of Engineering

The Pratt Endowment enriches the College of Engineering in many ways, adding to Virginia Tech's reputation. In fiscal year 2016-2017, Pratt Funds supported the following engineering programs: undergraduate scholarships, undergraduate and graduate international scholarships, graduate research assistantships, graduate fellowships and graduate tuition scholarships, and graduate recruitment for the College's research programs.

**Undergraduate Scholarships**

Spent: $488,044

Pratt Funds allow the College to offer Dean's Scholar scholarships to entering freshmen. These scholarships provide a four-year, $6,000 per academic year continuing commitment to each recipient provided at least a 3.5 grade point average is maintained. In fiscal year 2016-2017, Pratt Funds provided $6,000 scholarships to 67 students. An additional 70 students received scholarships ranging from $1,000 to $5,000.

**Undergraduate International Scholarships**

Spent: $60,000

Pratt funds provided scholarships to 60 undergraduate students participating in international experiences during the 2016-2017 academic year. Travel scholarships were provided to students to travel to countries in Europe and Africa, China, Nepal, Iceland, and New Zealand for conducting research and participating in conferences. Examples of research activities include participation in Green Program: Renewable Energy and Sustainability, Race and Reconciliation program in South Africa, and study abroad programs in various countries.

**Graduate International Scholarships**

Spent: $29,496

Pratt funds supported 15 graduate students undertaking a variety of international experiences. Examples of the international experiences include participation in dual degree programs, conferences, research, study of bridges in Switzerland and Germany, and study abroad programs.

**Graduate Research Scholarships**

Spent: $87,600

The College used Pratt funding to support graduate research assistants in the Institute for Critical Technology and Applied Science's (ICTAS) Doctoral Scholars Program. This program is a multi-disciplinary research effort coordinated by ICTAS, with significant contributions from participating departments, colleges, and the Graduate School. Students receive a graduate research scholarship of $32,000 per year for a maximum of four years. The program supported eight students in fiscal year 2016-17.
Graduate Fellowships and Graduate Tuition Scholarships Spent: $173,001

Graduate Fellowships
Each engineering department receives a portion of Pratt funds to use for graduate fellowships. In fiscal year 2016-2017, 55 students received Pratt Fellowships ranging from $36/month to $550/month. These fellowships supplement existing assistantships, allowing the College to offer competitive compensation packages to graduate students being recruited by other top engineering colleges.

Spent: $135,137

Graduate Tuition Scholarships
Engineering departments have the option of using Pratt Fellowship funding for tuition remission scholarships for graduate students. In fiscal year 2016-2017, departments provided partial or complete tuition for six graduate students from Pratt funds.

Spent: $37,864

Graduate Recruitment for Research Programs Spent: $123,000

The College’s departments readily acknowledge that the use of Pratt Funds to support visiting prospective graduate students substantially increases our enrollment of top-quality graduate students and is critical to the College’s research programs. In fiscal year 2016-2017, this funding supported the travel expenditures for over 180 prospective graduate students.
PRATT FUNDS: Animal Nutrition

The John Lee Pratt Endowment has been instrumental in enhancing the quality of the university’s animal nutrition programs at Virginia Tech. The Pratt Endowment objective as specified in John Lee Pratt’s bequest is to "promote the study of animal nutrition, provide equipment and materials for feeding experiments and the preparation of livestock and poultry feeds, and to publish and disseminate the practical results from this research." In an effort to better meet the original goals of the Endowment in enhancing Animal Nutrition programs and attract high quality graduate scholars, the College of Agriculture and Life Sciences Pratt Endowment Executive Council modified the process of awarding the Pratt funds in 2011. The process seeks proposals that enhance faculty programs in Animal Nutrition by aiding in the establishment of new interdisciplinary and externally-funded research, augmenting established funded research, or bridging gaps in projects between periods of extramural funding. Graduate student and visiting scholar support is a major component of these projects. In 2017 we funded 14 active projects from two proposal cycles. The programs of 14 faculty members located in seven different departments are supported through these 14 projects. A total of 12 graduate students are funded by these projects.

Direct support of stipends and operations and enhancement of graduate programs through equipment purchases and visiting scientists are the primary expenditures. The total net expenditure for FY17 was $849,745 for the continuing program. The main categories of expenditures were as follows:

- Graduate Student Scholars (PhD & MS) 53.4%
- Nutrition Program Support Personnel 19.4%
- Undergraduate Program Scholarships & Research 18.6%
- Scientific Equipment and Supplies 4.0%
- Visiting Scholars and Seminars 4.6%
- Research Publications 0%

**Graduate Student Scholars**  
Spent: $453,848

The Pratt program has now matured and currently 14 scholars are enrolled in the program. These students are from several states and countries and are selected based on excellence in their academic and research accomplishments. They receive a Ph.D. or M.S stipend plus payment of all required tuition and fees. Additionally, each MS or PhD candidate receives $2,500, to be used for operational expenses of their research programs.

**Nutritional Program Support Personnel**  
Spent: $164,997

Research technicians in the field of animal nutrition are a key component of Pratt funding. The Pratt funds provide partial support of three technicians in animal and dairy...
sciences. These technicians are essential in assisting with the necessary sample preparation and data collection for research performed by the scientists engaged in animal nutrition projects in proteomics, ruminant nutrition, and nutrient management.

**Undergraduate Program Scholarships and Research**

Spent: $158,150

Over 50 outstanding freshmen students were awarded $1,000 merit scholarships, each, upon entering departments which offer programs in animal nutrition. In addition, 10 Pratt Senior Animal Nutrition Research Scholars received scholarships ($1,500 each) and research support ($1,000 each). This exciting program allows outstanding seniors to participate in undergraduate research programs working directly with a faculty researcher. They report their research results at a symposium each spring. Many of these students pursue graduate programs in animal nutrition.

We continued funding for the Pratt Study Abroad Initiative, which is made available to students planning a study abroad experience that involves study or research related to animal nutrition. This year’s recipients participated in faculty-led study abroad classes. During winter session 2016, $2,000 was awarded for travel to New Zealand where recipients toured progressive dairy and venison farms and businesses. In summer 2016, $12,000 was awarded for travel to the United Kingdom where recipients studied at three European colleges and toured livestock operations.

**Scientific Equipment and Supplies**

Spent: $33,776

Expenditures for equipment and research space renovations continued to emphasize the needs of programs focusing on animal nutrition at various units at the university. The small equipment (<$10,000) needs were implemented based on the desire of the faculty to achieve the goals of the proposed projects. We were unable to issue a request for proposals for large equipment this fiscal year due to the large number of graduate students that were being funded by Pratt awards.

**Visiting Scholars and Seminars**

Spent: $38,974

An important stimulus for research programs in animal nutrition is the presence of visiting scientists in seminars, in the classroom, and in the laboratory. A nutrition seminar is regularly supported by Pratt to bring in outstanding speakers from other institutions and industry. Other scientists visit for periods of time ranging from a few days to several months. Visitors supported by Pratt present seminars for the university community and interact with animal nutrition faculty and students in formal and informal instructional settings including laboratories. Visiting scientists/scholars expenditures are higher than the amounts used in recent years due to the new process of funding proposals as some of these proposals include visiting scientists as a part of their research plan.

**Research Publications**

Spent: $0

The program still allows for paying the publication costs of research journal articles resulting from student dissertations. Very few faculty members, however, request the
payment of their publication costs from Pratt funds, mainly because they either include the publication costs in their external grants or many journals have discontinued their charging policy for publication of research articles. The Pratt funded faculty, are however, very productive and have published over 120 publications on animal nutrition over the past five years.

**Summary**

The Pratt funds continue to have significant impacts on the Virginia Tech programs in animal nutrition. The process of awarding the Pratt Funds to faculty, including the peer review process established for selection of proposals based on their scientific merits and potential to enhance animal nutrition programs, has greatly enhanced the quality of the programs and is enabling the faculty to become more competitive for external funding at the national level.
The Finance and Resource Management Committee will receive a report on the Investment of Nongeneral Funds
The Virginia Tech Research Enterprise: a Financial Perspective

Board of Visitors
November 6, 2017
Why does research support matter?

**DISCOVER**
ask the right questions

- Explore topics of human, market, social relevance
- Advance knowledge creation
- Stay on the cutting edge
- Serve national and global interests

**ENGAGE**
as a member of the scientific community

- Collaborate as a community
- Work alongside faculty, undergrads, and graduates
- Serve private and public sector partners
- Create experiential learning

**IMPACT**
deliver regional, state, national, global

- Deliver solutions to greatest challenges
- Disseminate knowledge
- Support the community
- Promote informed culture and policy change
- Commercialize discoveries
- Build the brand
Committee Minutes

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
Duck Pond Room, The Inn at Virginia Tech
September 11, 2017

Finance Closed Session

Board Members Present: Ms. Greta Harris, Ms. Anna James, Mr. Dennis Treacy, Mr. Horacio Valeiras

VPI & SU Staff: Ms. Kay Heidbreder, Dr. Timothy Sands, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr.

1. Motion for Closed Session: Motion to begin closed session.

* 2. Ratification of Personnel Changes Report: The Committee met in closed session to review and take action on the quarterly personnel changes report.

The Committee recommended the Personnel Changes report to the full Board for approval.

Finance Open Session

Board Members Present: Ms. Greta Harris, Ms. Anna James, Ms. Tish Long, Mr. Robert Mills, Ms. Debbie Petrine, Mr. Robert Sebek – staff representative, Mr. Dennis Treacy, Mr. Horacio Valeiras

VPI & SU Staff: Mr. Bob Broyden, Mr. Jim Buckwalter, Ms. D’Elia Chandler, Mr. John Cusimano, Mr. Brian Daniels, Dr. John Dooley, Dr. Guru Ghosh, Mr. David Guerin, Dr. Luisa Havens, Ms. Angela Hayes, Ms. Kay Heidbreder, Mr. Jim Hillman, Mr. Tim Hodge, Dr. Roop Mahajan, Dr. Theresa Mayer, Dr. Steven McNight, Ms. Nancy Meacham, Dr. Scott Midkiff, Mr. Ken Miller, Ms. Terri Mitchell, Mr. Charlie Phlegar, Dr. Menah Pratt-Clark, Dr. Scot Ransbottom, Ms. Lisa Royal, Mr. Charlie Ruble, Dr. Tim Sands, Ms. Savita Sharma, Mr. M. Dwight Shelton Jr., Dr. Angela Simmons, Dr. Ken Smith, Mr. John Talerico, Mr. Kirk Wehner, Dr. Lisa Wilkes

1. Motion to Reconvene in Open Session: Motion to begin open session.
Virginia Tech’s contributions to science and technology are a critical and prominent element of our culture. They support the very fabric of who we are and where we hope to go.

In STEM-H disciplines, a strong correlation exists between competitive external funding and other measures of success, including:

- scholarly journal articles
- advisory boards
- relevance to society
- fundamental discoveries
- transformative change in industry
Where we are: NSF-reported research expenditures

Over the last 10 years, Virginia Tech has sustained strong growth in total R&D expenditures as reported in the NSF Higher Education R&D (NSF HERD) survey, allowing us to deliver game-changing ideas and technologies.

1 Includes non-competitive state funds, AG capacity funds (Agency 229), VT-ARC, 50% VTT LLC, gifts to support research, and subcontracts to other organizations
Extramural total*: $302.5M
Federal only*: $195.6M

*Includes non-competitive state funds, AG capacity funds (Agency 229), VT-ARC, 50% VTT LLC, gifts to support research, and subcontracts to other organizations
What does external funding support?

In FY 17, externally sponsored research expenditures totaled $233.5 M – excluding non-competitive state funds, Agency 229, VT-ARC, and VTT LLC:

For every*

$1.00

in Modified Total Direct Costs (MTDC) spent at Virginia Tech

Virginia Tech is reimbursed

$0.61

in Facilities and Administrative (F&A) costs

*$not all grants carry the full capped F&A rate of 61% (e.g., USDA); the uncapped F&A rate on DOD contracts is 65%
The university research enterprise

The NSF Higher Education Research & Development (HERD) survey displays 30+ data sets to account for differences in university research portfolios. The university research enterprise is often viewed by expenditures in three common pillars: non-medical academic colleges, academic medical college/school, and affiliated thematic research units. Research-intensive universities typically have at least two of the three.
### NSF HERD: a different view

Virginia Tech is #22 when ranked by all non-medical school R&D expenditures for FY 2015.

The total R&D expenditures in this table include all external funding (competitive and non-competitive) and institutional support.

*FY 16 HERD will be released in Nov 17

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Non-Medical</th>
<th>Medical</th>
<th>Total</th>
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<td>625,820</td>
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<td>0</td>
<td>930,719</td>
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<tr>
<td>3</td>
<td>U. Texas, M. D. Anderson Cancer Center</td>
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<td>0</td>
<td>833,406</td>
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<td>4</td>
<td>Texas A&amp;M, Health Science Center</td>
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<td>866,678</td>
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<td>9</td>
<td>U. Wisconsin-Madison</td>
<td>763,051</td>
<td>306,026</td>
<td>1,069,077</td>
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<td>10</td>
<td>Penn State, Hershey Medical Center</td>
<td>698,465</td>
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<td>646,273</td>
<td>4,335</td>
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<td>U. California, Davis</td>
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<td>166,513</td>
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<td>19</td>
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<td>20</td>
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<tr>
<td>25</td>
<td>North Carolina State U.</td>
<td>468,293</td>
<td>0</td>
<td>468,293</td>
</tr>
</tbody>
</table>

*FY 15*
What are affiliated research units?

**Definition**

Affiliated Research Units are strategic research institutes or centers housed within or associated with a university. These organizations maintain essential research, development and engineering "core" capabilities; maintain long-term strategic relationships with critical sponsors; operate in the public interest, free from real or perceived conflicts of interest; and support economic development. Collaboration with the educational and research resources available at their universities enhances the unit’s ability to meet the needs of their sponsors.
Universities with affiliated DoD research units receive sole source funding, which positions them for larger competitive S&T funding.

- Hopkins: APL
- MIT: Institute for Soldier Nanotechnologies
- Georgia Tech: GTRI
- UT Austin: ARL
- Penn State: ARL
- U Washington: APL
Changing landscape: thematic research institutes

The Affiliated Thematic Research Institutes and Centers provide a framework to maintain essential research, development and engineering “core” capabilities and long-term strategic relationships with critical sponsors. Institute researchers are largely funded through competitive external grants and contracts. College faculty and students participate on many of the external research programs managed by these institutes and centers.

Virginia Tech Transportation Institute
   grew out of University Transportation Center in 1998
   VTT, LLC (SoVA Motion) started in 2010
   2000

Virginia Bioinformatics Institute
   rebranded as Biocomplexity Institute in 2016
   2000

Virginia Tech Carilion Research Institute
   2010

Hume Center for National Security and Technology
   2017

*VTCRI director reports to the Provost
It’s been more than 25 years since VTTI was founded. Then, ... 15 employees. Today, we stand at more than 475 employees, house the largest group of driving safety researchers in the world, sponsored research expenditures of more than $36 million annually, have an infrastructure of more than $110M, and support 140 students who are gaining a leading research experience.

Not by accident:
VTTI is now the largest transportation research institute in the country.
Virginia Tech’s changing landscape

Over the past 15 years, changes in our organizational design has resulted in an evolving assembly of research capabilities, strengths, and opportunities

2003

College of Arts and Sciences is splits

College of Liberal Arts and Human Sciences
- ASPECT - alliance for social, political, ethical, and cultural thought*
- apparel, housing, resource management
- communications
- english
- history
- human development and family science*
- philosophy
- political science
- religion and culture
- science, technology and society
- sociology
- education
- performing arts
- ROTC

College of Science
- academy of integrated science
- biochemistry
- biological sciences*
- chemistry*
- computational modeling and data analytics
- economics*
- geosciences*
- mathematics*
- microbiology
- nanoscience
- neuroscience
- physics*
- psychology*
- statistics*
- systems biology

+ participation in 15 Interdisciplinary Graduate Education Programs (IGEP’s)

*offers Ph.D. degree
It's been more than 25 years since VTTI was founded. Then, VTTI had 15 employees. Today, we stand at more than 475 employees, house the largest group of transportation researchers in the world, and support 140 students who are gaining a leading research experience.

Not by accident: VTTI is now the largest transportation research institute in the country.

9th college to open in 2018: The Virginia Tech Carilion School of Medicine will become a college within Virginia Tech a decade after its creation by a private-public partnership.
Changing landscape: academic research institutes

The Interdisciplinary Academic Research Institutes provide institutional support to faculty to organize and focus strategic research, education, and outreach efforts around cross-cutting societal problems rather than traditional disciplines. The institutes provide a framework to support interdisciplinary faculty collaboration and communication, which ranges from funding to seed new interdisciplinary research initiatives to managing state-of-the-art facilities and laboratories.

*ICTAS director reports to the Dean of College of Engineering; ICAT director reports to the Provost
External Research Expenditures by Performing Unit

Medical Research Unit
- VTCRI $12.6 M

Thematic Research Units
- BI $13.6 M
- VTTI $32.0 M
- Hume $5.2 M
- VT-ARC $7.0 M
- VTT LLC $2.2 M

International Programs
- International $7.8 M
- VTCRI $12.6 M

Academic Colleges
- Ag and Life Sciences $34.9 M
- Engineering $88.9 M
- Natural Resources $14.8 M
- Science $21.5 M
- Vet Med $6.2 M
- Other Colleges $7.0 M

FY 16: excludes non-competitive state funds and Agency 229; includes gifts to support research and subcontracts to other organizations
Strategic hiring of faculty is key to future growth

100 college tenure-line and research faculty are credited with 42% of external expenditures in academic colleges.
Strategic hiring of faculty is key to future growth

100 College Tenure-line (with classroom instruction) and Research Faculty

Strategic relationships with core sponsors result in higher program expenditures. Many of these same programs are leveraged by college faculty.
We have an excellent opportunity to build an even stronger externally funded research enterprise through strategic faculty hiring in colleges and institutes.
University Support for Student Financial Aid

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 2, 2017

Consistent with prior years, the university is providing the Finance and Resource Management committee of the Board of Visitors with an update on the university’s Student Financial Aid program. This annual report provides an overview of the types of student financial assistance programs available at the university, sources of funding for programs, and a review of the institutional undergraduate aid programs that can be controlled or influenced by the university.

This report is an integral part of the information flow to the Board of Visitors to assist in the assessment and approval of the university’s tuition and fee rate proposals for the fall of 2018.

Funding Environment

Virginia Tech is experiencing an ongoing shift in the types of resources available to support its instructional programs. These changes include periodic increases in tuition and required fees as driven by a combination of increasing costs, the requirement to maintain the quality and integrity of the instructional programs, enrollment growth to support additional Virginia students, and the inability of the state to maintain its historic level of financial support.

The state-funded share of support per student is impacted by limited General Fund resources at the state level, mandatory cost increases such as health care benefits, enrollment growth of Virginia resident students, and inflation; as a result, increases in tuition and fees are increasingly relied upon to support the university’s instructional activities. In this environment, the role of student financial assistance of all types has become a more critical element of financial planning in the university’s efforts to ensure access and affordability. Financial aid programs are critical to support those goals, as well as promoting the recruitment, retention, and graduation of students. The university’s financial aid efforts seek to ensure that qualified students can access a Virginia Tech education and help to promote a diverse and inclusive community in support of the university’s goals and objectives.

Historically, the university has strived to manage increases in tuition and fees at a reasonable level to enhance access and affordability; this strategy was predicated on a certain level of state support. However, the funding mix of higher education continues to evolve. As the state share of a student’s cost has fallen significantly over time, the student’s share of their cost of education has grown. Understanding this shift, the university has proactively focused its efforts to increase support for student financial aid. These efforts are specifically designed to ensure access and affordability and meet the goals of the university as described in its Management Agreement with the Commonwealth.

Types of Student Financial Aid

The university facilitates a multifaceted scholarship and financial aid program that provides assistance to undergraduate students through grants and scholarships, employment
opportunities, loans, and payment strategies. Graduate students are supported through graduate assistantships, which provide tuition remission and a stipend in exchange for university service. Fund sources for this assistance are varied as are their accompanying eligibility protocols. For fiscal year 2016-17, total aid reached $462.2 million, as seen in Figure 1 below.

Financial assistance to students is provided in the four main categories of grants and scholarships, employment, loans, and payment options:

1. **Grants and Scholarships** provide aid based on academic or extracurricular achievement, or financial need, and require no exchange of service. Some of these are need-based, while others are merit-based. No repayment is expected.

   *Need-based awards* are offered to students who demonstrate financial need as determined by federal and institutional standards. Such standards involve the computation of the cost of attendance including estimated books and supplies, transportation, personal expenses, and room and board whether on or off campus, in addition to tuition and required fees. From this total cost of attendance the university subtracts the Expected Family Contribution (standardized through the Free Application for Federal Student Aid, the FAFSA), and any outside aid the student has obtained from sources other than the university to determine the student's financial need.

   *Non-need-based awards* may be merit-based and offered to students who demonstrate exceptional aptitude and academic and/or extracurricular achievement.
2. **Employment** includes wage employment, student work-study opportunities at the undergraduate level, and graduate assistantships at the graduate level. In 2016-17, 37 percent (12,518) of Virginia Tech students participated in an employment opportunity.

*Federal Work-Study* – provides eligible students a financial aid allotment and a wage employment position. This program is subsidized by the federal government and is supported in part by the university. Work-study participants are employed both on and off-campus; gaining valuable work experience along with financial assistance. Award amounts, generally between $1,500 and $2,500 are based on a student's Free Application for Federal Student Aid (FAFSA) filing. In 2016-17, 621 students participated in FWS programs; 613 at the undergraduate level and 8 at the graduate/professional level.

*Wage employment opportunities* - provide university employment to students based upon individual qualifications subject to departmental needs and resources. The university employed 7,621 students in wage positions during 2016-17; 6,558 at the undergraduate level and 1,063 at the graduate/professional level.

*Assistantships* - offer tuition remission and a stipend in return for the student's (typically graduate-level) effort through research, service, or teaching. This funding supports both the graduate student and the university's programs. The university employed 3,741 individual graduate students, or 3,265 full-time equivalent students, as graduate assistants in administrative, teaching, and research positions in 2016-17. This represents 71 percent of the full-time graduate student population.

3. **Loans** are offered through institutional, federal, and private lenders and provide financial assistance. These loans have repayment requirements. Loans may be subsidized or unsubsidized.

*Subsidized loans* - are generally from the federal government, carry a lower interest rate, and do not accrue interest or require payment during qualifying enrollment and deferment periods.

*Unsubsidized loans* - generally accrue higher, market-based interest rates from the date the loan is disbursed, and may not require repayment during qualifying enrollment and deferment periods.

4. **Payment Options** include prepaid tuition plans offered by the Commonwealth of Virginia (such as tax sheltered savings plans) and the Budget Tuition Plan operated by the university. The Budget Tuition Plan is an installment payment plan which provides students and families the opportunity to spread the cost of tuition and fees over the course of the semester.

The university is involved in the administration and distribution of each of these types of financial aid. Many programs are administered outside of the university, and students arrive with financial aid arrangements (which are in general termed “outside aid” in this report) that the university facilitates on their behalf. Other programs are developed within the institution.
Sources of Funding for Grants and Scholarships

A wide range of resources support grants and scholarships, including federal, state, institutional, and outside aid, as seen below in Table 1.

Table 1: Grants, Scholarships, & Waivers
($ in millions)

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Federal</strong></td>
<td>$18.0</td>
<td>$18.3</td>
<td>$18.3</td>
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<tr>
<td><strong>State</strong></td>
<td>15.5</td>
<td>15.6</td>
<td>16.1</td>
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<td><strong>Institutional</strong></td>
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<tr>
<td>Unfunded Scholarships</td>
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<td>15.1</td>
<td>17.2</td>
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<tr>
<td>Tuition/Fee Funded Aid</td>
<td>0.0</td>
<td>1.2</td>
<td>1.8</td>
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<td>Internal Resources</td>
<td>1.1</td>
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<td>0.7</td>
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<tr>
<td>Other Undergraduate</td>
<td>4.9</td>
<td>5.7</td>
<td>5.3</td>
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<tr>
<td>Private (Foundation)</td>
<td>21.1</td>
<td>22.9</td>
<td>24.0</td>
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<td><strong>Subtotal Institutional</strong></td>
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<td>45.3</td>
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<td><strong>Outside</strong></td>
<td>25.9</td>
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<td><strong>Subtotal Undergraduate</strong></td>
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<td>107.4</td>
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<td><strong>Graduate</strong></td>
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<td><strong>Federal</strong></td>
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<td>0.0</td>
<td>0.0</td>
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<tr>
<td><strong>State</strong></td>
<td>4.5</td>
<td>4.5</td>
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<tr>
<td>Other Graduate</td>
<td>3.7</td>
<td>3.7</td>
<td>3.3</td>
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<tr>
<td>Private (Foundation)</td>
<td>2.6</td>
<td>2.7</td>
<td>3.0</td>
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<tr>
<td><strong>Subtotal Institutional</strong></td>
<td>70.3</td>
<td>75.4</td>
<td>78.2</td>
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<td><strong>Outside</strong></td>
<td>6.7</td>
<td>7.5</td>
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<tr>
<td><strong>Subtotal Graduate</strong></td>
<td>81.5</td>
<td>87.4</td>
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<td><strong>Total Grants, Scholarships, &amp; Waivers</strong></td>
<td>$182.0</td>
<td>$194.8</td>
<td>$203.3</td>
</tr>
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</table>

(1) Other Undergraduate includes external grants and contracts, waivers codified in the Code of Virginia, and educational benefits for employees.

(2) Other Graduate includes waivers codified in the Code of Virginia and educational benefits for employees, and internal resources used to support graduate students.
Federal Support comes from the federal government and is provided through Pell Grants and Federal Supplemental Educational Opportunity (FSEOG) support. These programs are administered by, and flow to the student through, the university. The appropriations for these programs are often congressionally approved and, in the case of Pell Grants, follow the student to their university.

State Support is provided by the Commonwealth from the state General Fund in several ways. The bulk of the Commonwealth’s appropriation is directed to the university in support of Virginia resident undergraduate need-based scholarships. Funding is also appropriated to support graduate student assistantships. Additionally, the Commonwealth directs a small portion of funding to the university to fund students in the Soil Sciences and students participating in the Multicultural Affairs and Opportunities Program. Other state funding may flow to the university on behalf of students, and is not under the university’s control.

Institutional Support is the area of financial aid that the university can impact directly, providing financial assistance in the form of scholarships and grants at the undergraduate level and assistantships at the graduate level. Institutional support comes through six main categories: unfunded scholarships, Tuition & Fee Revenue Used for Financial Aid, internal resources, codified waivers, graduate tuition remission, and private funding. In 2016-17, institutional support provided $49.0 million to 10,383 undergraduate students; an average of $4,717 per student.

Unfunded Scholarships: Section §23-1 of the Code of Virginia authorizes institutions of higher education to create need-based scholarships through the remission of tuition and fees up to certain limits at both the student and institutional level. These programs are supported by the tuition budget and are reflected in the net tuition revenue collected by the university.

Tuition & Fee Revenue Used for Financial Aid: The 2014 General Assembly session added language in Section §4-5.01 b.1.a of the Appropriation Act that authorizes institutions of higher education to create nongeneral fund appropriations for student financial assistance, as follows: (i) funds derived from in-state student tuition will not subsidize out-of-state students, (ii) students receiving these funds must be making satisfactory academic progress, (iii) awards made to students should be based primarily on financial need, and (iv) institutions should make larger grant and scholarship awards to students taking the number of credit hours necessary to complete a degree in a timely manner. These programs are supported by the tuition budget and are reflected in the net tuition revenue collected by the university.

Internal Resources: Some institutional support is available from specific resources. Given the public nature of much of the university’s resources, the university is limited in its ability to generate resources for flexible scholarship support. Examples of this type of support are revenue from Virginia Tech license plate sales and net revenues from licensing and trademark activities.

Codified Waivers: While the university is generally unable to waive student charges, codified waivers are specific programs that are enacted in the Code of Virginia that authorize the waiver of charges to support specific groups targeted by the Commonwealth. These groups include:
- Dependents and spouses of military personnel such as members of the United States Armed Forces or Virginia National Guard who were killed or severely disabled in action,
- Surviving spouses and children of Virginia public safety personnel such as law-enforcement officers, campus police officers, and firefighters killed in the line of duty,
- Senior citizens with income less than $23,850 per year, as long as tuition paying students are not displaced.

Because the costs of these programs are managed by the institution, these programs are considered institutional support. The university also supports graduate students on assistantship through the waiver of the nonresident differential (the difference in the tuition rate between resident and nonresident graduate students) as authorized by the Appropriation Act for significantly employed graduate students.

**Graduate Tuition Remission:** The most common source of support for graduate students is the graduate assistantship. An assistantship is comprised of a stipend, health insurance, and graduate tuition remission. Assistantships support teaching, research, or other service within the university. The university funds a portion of the graduate tuition remission program, as do grants and contracts tied to specific externally sponsored activities, primarily research.

**Private Funding:** University Development supports the vision of Virginia Tech by raising private resources for student scholarships and endowments. These privately-funded scholarships resources are received, managed, and disbursed by the Virginia Tech Foundation on behalf of the institution. While some resources are managed by the university, the university’s individual colleges and departments are responsible for awarding a significant portion of the private support and administering restricted scholarships to eligible students based upon donor intent. Utilization of these departmentally administered resources is detailed later in this report.

**Outside Aid** is aid which normally comes with a student from private external parties. This could include private organizations, nonprofit organizations, businesses, governmental entities, international organizations, and other special-interest groups. The university does not control this fund source but works to facilitate and coordinate the delivery of such support. Often these awards are tied to academic progress eligibility which the university may monitor on behalf of the awarding entity.
Undergraduate Scholarships

Of the sources of undergraduate scholarships and grants, 44 percent are derived from institutional sources, as seen in Figure 2.

Figure 2: Sources of Undergraduate Grants and Scholarships

<table>
<thead>
<tr>
<th>Source</th>
<th>2016-17 ($ in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$18.3</td>
</tr>
<tr>
<td>State</td>
<td>$16.1</td>
</tr>
<tr>
<td>Institutional</td>
<td>$49.0</td>
</tr>
<tr>
<td>Outside</td>
<td>$28.8</td>
</tr>
<tr>
<td>Total</td>
<td>$112.2</td>
</tr>
</tbody>
</table>

Unfunded Scholarships: $17.2
Tuition/Fee Funded: 1.8
Internal Resources: 0.7
Other: 5.3
Private (Foundation): 24.0
Total: $49.0

Institutional resources to support undergraduate student financial aid awards have increased over time, as seen in Figure 3.

Figure 3: Undergraduate Institutional Support at Virginia Tech
Though resources have increased over time, tuition increases and enrollment growth often have outpaced increases in state and private sources, and in most years resulted in a declining number of theoretical tuition and E&G fee scholarships that could be supported by these resources. In 2016-17, the university was able to make measured progress in the total number of Full-Time Equivalent number of awards for undergraduates. Moving forward, the university intends to continue to exert additional emphasis on raising additional funds to further increase the university’s capacity to help with student affordability. Figure 4 displays the trend of this scholarship analysis from these sources.

**Figure 4: Full-time Equivalent Undergraduate Scholarships**

![Figure 4: Full-time Equivalent Undergraduate Scholarships](image)

**Uses of Funds**

The university leverages institutional support to advance access and affordability and has also created several innovative, very successful programs. Two major undergraduate Grant and Scholarship programs are:

**Funds for the Future** – This is the university’s largest undergraduate financial aid program, designed to assist returning students with financial need by mitigating all or a portion of increases in tuition and required fees based on level of family income. This program is specifically designed to provide support to both low and middle-income undergraduates. Depending upon the adjusted gross income of the student’s family, the student can be fully protected from tuition and required fee increases in each year the student returns to the university. Table 2 displays the program parameters, and Table 3 shows the number of resident and nonresident students receiving this aid in 2016-17.
Table 2: Funds for the Future Protection Levels

<table>
<thead>
<tr>
<th>Family Income (AGI)</th>
<th>Undergraduate Tuition &amp; Fee Increase Protection *</th>
<th>Example Impact of FFF Protection for Undergraduate Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Tuition &amp; E&amp;G Fee Increase</td>
</tr>
<tr>
<td>$0 - $74,999</td>
<td>100%</td>
<td>2.9%</td>
</tr>
<tr>
<td>$75,000 - $87,499</td>
<td>50%</td>
<td>2.9%</td>
</tr>
<tr>
<td>$87,500 - $99,999</td>
<td>25%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

Table 3: 2016-17 Funds for the Future Award Recipients

<table>
<thead>
<tr>
<th>Family Income (AGI)</th>
<th>Number of Virginia Undergraduates Receiving Award</th>
<th>Number of Nonresident Undergraduates Receiving Award</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0 - $74,999</td>
<td>2,571</td>
<td>500</td>
</tr>
<tr>
<td>$75,000 - $87,499</td>
<td>417</td>
<td>86</td>
</tr>
<tr>
<td>$87,500 - $99,999</td>
<td>522</td>
<td>129</td>
</tr>
<tr>
<td>Total</td>
<td>3,510</td>
<td>715</td>
</tr>
</tbody>
</table>

VT Grant – In addition to protecting students with financial need from tuition and required fee increases, the university has also been methodically working to expand its total aid program, with the goal of reducing unmet need. Additional funds have been allocated to this program annually with the goal of reducing unmet need at a measured pace over time.

Other programs that have been designed to offset the costs of attendance, achieve enrollment goals, and recognize academically talented students include:

- Presidential Scholarship Initiative to assist low-income and first-generation Virginia students with significant financial need,
- VT Scholars award to recruit academically talented students and advance university first generation enrollment goals,
- Emerging Leaders Scholarship for participants in the Corps of Cadets,
- Presidential Campus Enrichment Grants and Alumni Presidential Scholar Program that serve both students with need and students who demonstrate merit to achieve university enrollment goals,
- Yellow Ribbon program for military veterans and dependents (university support for federal matching program),
- Scholarships to defray a portion of a student’s costs to study at the Steger Center for International Scholarship, and
- Scholarship support to help offset the higher costs of study abroad programs.
These programs help address the commitment to access and affordability that the university undertook as part of the Restructured Higher Education Financial and Administrative Operations Act initiative. Further, these programs have been well received by students, families, and the Commonwealth and help advance strategic goals.

**Trends in Student Indebtedness**

**Loans**
The university continues to monitor students' borrowing behavior. Table 4 below displays the average borrower debt of the graduation class at Virginia Tech and nationally for the past 5 years, as well as the percentage of each class who carried student loan debt upon graduation. According to the Institute for College Access and Success, 68 percent of 2015 graduates of public and nonprofit four-year colleges had student debt averaging of $30,100 per borrower. At Virginia Tech, only 53 percent of the class of 2015 graduated with any debt. Of those who did graduate with debt, the average was $28,873, or 4.2 percent below the national average. For Virginia residents in the class of 2015, 53% graduated with debt; the average debt for this cohort was $25,862. Though the use of student loans remains a personal decision, the university provides students and parents with information and counseling to understand the benefits and responsibilities of student loan resources. Moving forward, the university envisions enhanced aid and loan counseling programs in an effort to help reduce student debt.

**Table 4: Loan Statistics of Virginia Tech Graduates**

<table>
<thead>
<tr>
<th>Class Of:</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT - All</td>
<td>$26,925</td>
<td>$27,925</td>
<td>$28,873</td>
<td>$28,884</td>
<td>$30,221</td>
</tr>
<tr>
<td>National Average</td>
<td>$28,400</td>
<td>$28,950</td>
<td>$30,100</td>
<td>NYA</td>
<td>NYA</td>
</tr>
<tr>
<td>VT - Virginia Resident</td>
<td>$24,256</td>
<td>$25,208</td>
<td>$25,862</td>
<td>$26,273</td>
<td>$27,162</td>
</tr>
<tr>
<td>%</td>
<td>55%</td>
<td>53%</td>
<td>53%</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td></td>
<td>69%</td>
<td>69%</td>
<td>68%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Default Rate**
Virginia Tech’s 2014 cohort default rate for the Federal Direct Loan (FDL) and Federal Family Education Loan (FFEL) programs was 1.4 percent, compared with a 2.8 percent average default rate among the university’s peer group. While default rates are linked to the national economy, Virginia Tech has consistently had a default rate below the national average, as seen in Table 5 below.

**Table 5: Cohort Default Statistics of Virginia Tech Borrowers**

<table>
<thead>
<tr>
<th>Cohort Default Rate</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT</td>
<td>2.1%</td>
<td>1.6%</td>
<td>1.4%</td>
</tr>
<tr>
<td>National Peer Average</td>
<td>3.1%</td>
<td>2.8%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
Net Price
When all available financial aid resources are applied to the overall Cost of Attendance (including tuition and fees, room and board, books, travel, and other costs), a “Net Price” can be derived to represent the remaining cost to the student. Due to various discounting strategies across institutions, the Net Price can be a helpful comparison point of the choice faced by students and their families. The National Center for Educational Statistics (NCES) compiles Net Price data across five student income categories. Table 6 below compares the university’s net price with national and state peers for a first year full-time Virginia undergraduate (or resident student within another state). This analysis finds that while the university remains competitive in terms of the average Cost of Attendance (sticker price), the university has an opportunity to enhance the net price competitiveness for low and middle-income students. As a result, the university is working diligently to make progress.

Table 6: Comparison of Net Price for Undergraduate Residents

<table>
<thead>
<tr>
<th></th>
<th>Cost of Attendance (Sticker Price)</th>
<th>Average Net Price by Income (2015-16 Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$0-30,000</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>$24,855</td>
<td>$11,998</td>
</tr>
<tr>
<td>National Peer Average</td>
<td>29,836</td>
<td>10,174</td>
</tr>
<tr>
<td>Advantage (Disadvantage)</td>
<td>4,981</td>
<td>(1,824)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>24,855</td>
<td>11,998</td>
</tr>
<tr>
<td>Select VA Doctorials</td>
<td>31,601</td>
<td>6,961</td>
</tr>
<tr>
<td>Advantage (Disadvantage)</td>
<td>6,746</td>
<td>(5,037)</td>
</tr>
</tbody>
</table>

Unmet Need
A student’s need is determined using the federal Free Application for Federal Student Aid (FAFSA). This calculation begins with the cost of attendance (tuition, fees, room, board, books and travel), subtracts the expected family contribution (EFC) along with any aid provided (including loans), and the remaining amount is considered “unmet need”. While external factors such as state budget reductions and student family income significantly effect this calculation, reducing the percentage of unmet need over time is a goal of the university’s student financial aid program. Table 7 below displays the unmet need of resident and nonresident undergraduates over time.

Table 7: Trend of Unmet Need

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Undergraduate</td>
<td>$5,668</td>
<td>$5,814</td>
<td>$5,299</td>
<td>$5,480</td>
<td>$6,200</td>
</tr>
<tr>
<td>% Average Unmet Need</td>
<td>36.8%</td>
<td>36.7%</td>
<td>33.2%</td>
<td>34.1%</td>
<td>35.9%</td>
</tr>
<tr>
<td>Nonresident Undergraduate</td>
<td>$10,273</td>
<td>$10,541</td>
<td>$9,783</td>
<td>$10,855</td>
<td>$11,617</td>
</tr>
<tr>
<td>% Average Unmet Need</td>
<td>45.9%</td>
<td>45.8%</td>
<td>41.8%</td>
<td>44.4%</td>
<td>44.7%</td>
</tr>
</tbody>
</table>
Utilization of Private Support

University colleges and departments are responsible for awarding and administering much of the university’s Private support for student financial aid. In past years, the university provided an annual report to the Committee to outline Endowment Scholarship utilization and Scholarship Expenditure plans. Over the years, unspent Endowment Scholarship balances had accumulated due to lack of oversight of departmental allocations, leading to a remediation strategy to ensure maximum utilization of departmentally allocated private scholarships. Due to the success of these actions, and the significant reduction in unspent balances, pertinent information from the prior report is now incorporated into this report to provide one comprehensive report on Student Financial Aid.

The Office of the Vice Provost for Enrollment and Degree Management now provides guidance to scholarship-managing units through procedures, reports, and data analysis. Each college’s annual expenditure plan of endowed scholarships is reviewed and approved to ensure that these resources are utilized effectively. Enrollment and Degree Managements efforts have resulted in enhanced utilization and significant reductions in unallocated cash balances. To continue this success, the Office of Scholarships and Financial Aid provides an annual management report to the Chief Financial Officer to affirm scholarship utilization and the status of funding.

Figure 5 below displays the trend of accumulated departmental private scholarship cash balances. The university believes that the year-end cash balances are now at acceptable levels, and the Office of the Vice President for Finance will monitor performance in future years to ensure that the cash balances remain at acceptable levels.
Current Events

The likelihood of the commonwealth significantly increasing General Fund support for financial aid for Virginia Tech is low. The university will need to continue to explore all possible opportunities to enhance access and affordability for Virginia undergraduates through increased institutional sources, with an emphasis on private fundraising.

The university is currently developing strategies to raise significant additional funding for scholarships and financial aid, specifically to reduce the net price for Virginia undergraduates in the lowest three income quintiles. Enhancing the resources available to these students through the university’s student financial aid program is an important goal to advance Virginia Tech.

In addition to supporting resident student financial need, the university’s scholarship program is integral to the achievement of enrollment targets, particularly of nonresident undergraduates. This enrollment strategy is designed to provide net resources to the institution to allocate towards support of resident students and university strategic initiatives. Aid to attract and retain students in targeted disciplines is a focus.

The university will continue to work to assist students and families with managing the cost of education in the future. For 2016-17, 10,922 full-time Virginia Tech undergraduate students (43 percent of the university’s undergraduate full-time population) were determined to have financial need. For 2017-18, the university worked to moderate tuition increases while increasing the allocation of unfunded scholarship support for undergraduates. This plan ties into the university’s commitment in its Management Agreement to increase support for need-based student financial aid to help ensure access and affordability.

The university has increased its unfunded scholarships commitment each year since expanding the program in 2001-02. While the university has been leveraging the unfunded scholarship authority to expand need-based aid, the use of unfunded scholarships has legal and practical limits. As a result, it will be important for the university to continue to work to expand funding from other sources in the future, especially by increasing private fundraising and endowed scholarships, and work to create new innovative sources.
University Support for Student Financial Aid

November 6, 2017

Tim Hodge, Assistant Vice President for Budget and Financial Planning
Student Financial Aid at Virginia Tech

$ in millions

<table>
<thead>
<tr>
<th>Year</th>
<th>Loans</th>
<th>Grants, Scholarships and Waivers (UG &amp; Grad)</th>
<th>Employment Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>$161.5</td>
<td>$182.0</td>
<td>$81.3</td>
</tr>
<tr>
<td>2015-16</td>
<td>$165.9</td>
<td>$194.8</td>
<td>$85.5</td>
</tr>
<tr>
<td>2016-17</td>
<td>$171.4</td>
<td>$203.6</td>
<td>$87.2</td>
</tr>
</tbody>
</table>
# Undergraduate Grants and Scholarships

($ in millions)

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>18.0</td>
<td>18.3</td>
<td>18.3</td>
</tr>
<tr>
<td>State</td>
<td>15.5</td>
<td>15.6</td>
<td>16.1</td>
</tr>
<tr>
<td><strong>Institutional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfunded Scholarships</td>
<td>14.0</td>
<td>15.1</td>
<td>17.2</td>
</tr>
<tr>
<td>Tuition/Fee Funded Aid</td>
<td>0.0</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Internal Resources</td>
<td>1.1</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Other Undergraduate (1)</td>
<td>4.9</td>
<td>5.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Private (Foundation)</td>
<td>21.1</td>
<td>22.9</td>
<td>24.0</td>
</tr>
<tr>
<td><strong>Subtotal Institutional</strong></td>
<td>41.1</td>
<td>45.3</td>
<td>49.0</td>
</tr>
<tr>
<td><strong>Outside</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.9</td>
<td>28.2</td>
<td>28.8</td>
</tr>
<tr>
<td><strong>Subtotal Undergraduate</strong></td>
<td>100.5</td>
<td>107.4</td>
<td>112.2</td>
</tr>
</tbody>
</table>

(1) Other Undergraduate includes external grants and contracts, waivers codified in the Code of Virginia, and educational benefits for employees.
Analysis of State & Institutional Support for Undergraduate Scholarships

Full-time Equivalent Undergraduate Scholarships

- State FTE Scholarships
- University FTE Scholarships
- Private FTE Scholarships
- TOTAL FTE Scholarships


Graph showing trends in full-time equivalent undergraduate scholarships from 2001 to 2017.
Institutional Undergraduate Scholarship Priorities

- Support Virginia Residents in the low- to middle-income range.
- Enhance access to underrepresented and first-generation Virginians.
- Support enrollment management as part of the overall revenue strategy.

**VT Grant:** need-based aid to undergraduate students to reduce unmet need.

**Presidential Campus Enrichment Grant** need-based aid for meritorious students.

**Presidential Scholarship Initiative:** need-based “full-ride” program with enhanced advising and support for underrepresented and first-generation Virginia students.

**VT Scholars:** for underrepresented and academically talented Virginians

**Provost Access Scholarship:** merit-based aid for talented underrepresented Virginians.

**College Access Collaborative:** for underrepresented Virginia students in the K-12 pathway program.

**Enrollment Management Support:** merit-based aid for highly talented students.
Undergraduate Scholarships
Institutional Programs

Funds for the Future

- Mitigates tuition increases for continuing students based upon family income levels.
- Includes Virginia and non-resident undergraduates.

<table>
<thead>
<tr>
<th>Family Income (AGI)</th>
<th>Undergraduate Tuition &amp; Fee Increase Protection*</th>
<th>Example Impact of FFF Protection for Undergraduate Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Tuition &amp; E&amp;G Fee Increase</td>
</tr>
<tr>
<td>$0 - $74,999</td>
<td>100%</td>
<td>2.9%</td>
</tr>
<tr>
<td>$75,000 - $87,499</td>
<td>50%</td>
<td>2.9%</td>
</tr>
<tr>
<td>$87,500 - $99,999</td>
<td>25%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>
## Trends in Undergraduate Indebtedness

### Average Debt per Borrower and Percentage of Students Graduating with Debt

<table>
<thead>
<tr>
<th>Class Of:</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT - All</td>
<td>$</td>
<td>$26,925</td>
<td>$27,925</td>
<td>$28,873</td>
<td>$28,884</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>55%</td>
<td>53%</td>
<td>53%</td>
<td>51%</td>
</tr>
<tr>
<td>National</td>
<td>$</td>
<td>$28,400</td>
<td>$28,950</td>
<td>$30,100</td>
<td>NYA</td>
</tr>
<tr>
<td>Average</td>
<td>%</td>
<td>69%</td>
<td>69%</td>
<td>68%</td>
<td></td>
</tr>
<tr>
<td>VT -</td>
<td>$</td>
<td>$24,256</td>
<td>$25,208</td>
<td>$25,862</td>
<td>$26,273</td>
</tr>
<tr>
<td>Virginia</td>
<td>%</td>
<td>54%</td>
<td>53%</td>
<td>53%</td>
<td>53%</td>
</tr>
<tr>
<td>Resident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

National data from the Project on Student Loan Debt, an aggregator of Common Data Set submissions. [www.projectonstudentdebt.org](http://www.projectonstudentdebt.org)
Net Price Comparison

- The university remains competitive in “Gross” price, but has an opportunity to enhance the “Net” price competitiveness for resident low and middle-income students.

<table>
<thead>
<tr>
<th></th>
<th>Cost of Attendance (Sticker Price)</th>
<th>Average Net Price by Income (2015-16 Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$0-30,000</td>
<td>$30,001-48,000</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>$24,855</td>
<td>$11,998</td>
</tr>
<tr>
<td>National Peer Average</td>
<td>29,836</td>
<td>10,174</td>
</tr>
<tr>
<td>Advantage (Disadvantage)</td>
<td>4,981</td>
<td>(1,824)</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>24,855</td>
<td>11,998</td>
</tr>
<tr>
<td>Select VA Doctorals</td>
<td>31,601</td>
<td>6,961</td>
</tr>
<tr>
<td>Advantage (Disadvantage)</td>
<td>6,746</td>
<td>(5,037)</td>
</tr>
</tbody>
</table>

- Net Price is the remaining cost to the student after all available financial aid resources are applied to the total Cost of Attendance which includes tuition, fees, room & board, and other expenses.
Current Events

- University continues to advance strategies to raise additional funding for student financial aid, specifically to reduce the net price for Virginia undergraduates in the lowest three income quintiles and enhance support for underrepresented student populations.

- Scholarship program is also integral to achieving enrollment targets, particularly nonresident undergraduate. This provides resources to support resident students and university strategic initiatives.

- In an era of modest tuition increases, institutional support for financial aid is significantly constrained and has practical limits.

- As a result, the university must continue to support institutional financial aid programs, with an emphasis on expanding student financial aid funding through private philanthropy.
Discussion
Grants & Scholarships includes Graduate Tuition Remission Program
($ in millions)

<table>
<thead>
<tr>
<th></th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>State</td>
<td>4.5</td>
<td>4.5</td>
<td>4.9</td>
</tr>
<tr>
<td>Institutional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition Remission</td>
<td>64.0</td>
<td>68.8</td>
<td>71.9</td>
</tr>
<tr>
<td>Tuition/Fee Funded Aid</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Graduate (1)</td>
<td>3.7</td>
<td>3.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Private (Foundation)</td>
<td>2.6</td>
<td>2.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Subtotal Institutional</td>
<td>70.3</td>
<td>75.4</td>
<td>78.2</td>
</tr>
<tr>
<td>Outside</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal Graduate</td>
<td>81.5</td>
<td>87.4</td>
<td>91.2</td>
</tr>
</tbody>
</table>

(1) Other Graduate includes waivers codified in the Code of Virginia and educational benefits for employees, and internal resources used to support graduate students.
Cost Containment and Efficiencies

DWIGHT SHELTON,
SR. VICE PRESIDENT FOR OPERATIONS AND ADMINISTRATION

VIRGINIA TECH
Current Status of Efficiencies

- Cost Conscious Culture
  - Administrative Cost Benchmarking
  - JLARC Study on Cost Efficiency: Study identified multiple metrics where Virginia Tech was more efficient than peer institutions.
- Ongoing and One-Time Efficiency Initiatives
- Opportunities for Improvement
Administrative Costs Benchmarking

Administrative Costs as a Percent of Total Core Expenditures FY2016

- Virginia Institution Average (n=14): 26% Remaining, 74% Academic & Institutional Support
- Virginia Research Average (n=3): 22% Remaining, 78% Academic & Institutional Support
- Public Research Average (n=81): 20% Remaining, 80% Academic & Institutional Support
- SCHEV Peer Average (n=25): 20% Remaining, 80% Academic & Institutional Support
- Virginia Tech: 16% Remaining, 84% Academic & Institutional Support

Legend:
- ■ Remaining Core Expenses (Instruction, Research, Public Service, etc.)
- ■ Academic & Institutional Support
Administrative Costs Benchmarking: American Council of Trustees and Alumni (ACTA) Perspective

- July 2017, ACTA Institute for Effective Governance published a report on administrative costs in higher education.

- Key question – How does institutional spending on administration compared to instruction measure up against similar institutions?
Current Efficiency Initiatives

- Energy Saving Projects
- Cooperative Procurement and Standardization
- Span of Control
- Automation of Administrative Processes
- Shared Services in Targeted Areas
- Outsourcing
- Library
Planning for Future Initiatives

- Data Driven and Outcome-based: higher education studies
  - Academic Benchmark Consortium
  - Education Advisory Board
- Expansion of Shared Services
- Targeted reviews of University Administrative Processes to confirm or identify best practices and efficiencies:
  - Peer Institutions
  - Industry
- Organizational Excellence Programs
- Academic Programs Efficiency
- Process Automation
Discussion

Current Efficiency Initiatives

Future Efficiency Initiatives

Committee Input
1. **Energy Efficiencies and Conservation**: Virginia Tech has made investments in Energy Savings Plans, which include implementation of energy saving projects and contracts to reduce future energy costs. These energy savings strategies include both optimization of energy supply and reduction in building demand. The university anticipates these energy saving investments to yield long-term savings of well over $3 million.

2. **Cooperative Procurement and Standardization**: Virginia Tech has utilized cooperative procurement as a best practice since the early 1980’s. Operating under a concept of "piggy-backing" off other institutions' negotiated contracts, cooperative procurement provides greater leverage in negotiations to offer vendors a contract utilized by more than one entity across the state.

   In 2012 - 2013, Virginia Tech and the University of Virginia worked together with the Secretary of Education to explore the benefits of both regional and state-wide purchasing collaborations. Based upon regional collaborations in other regions of the country and supported by the Lumina Foundation, this work eventually resulted in the creation of the Virginia Higher Education Procurement Collaborative (VHEPC). The VHEPC was organized and financially supported by thirteen Virginia higher education institutions in 2015 without any state financial support. By utilizing the collective buying power of these institutions, the VHEPC is positioned to identify strategic sourcing opportunities, leverage vendors, and negotiate strategic contracts to maximize savings and cost containment for all participating institutions.

Virginia Tech is an active participant in VHEPC and is achieving cost-savings not fully available as a stand-alone institution. The VHEPC has renegotiated existing contracts utilizing the total spend of all institutions to achieve greater discount opportunities. Successes include consolidated agreements with Grainger, Enterprise Rent-A-Car, Ferguson Plumbing Supplies and numerous other agreements representing commonly purchased goods and services by the Commonwealth’s higher education agencies. After consolidating from four (4) individually awarded Grainger contracts into one (1) enhanced VHEPC negotiated agreement, all twelve (12) Virginia Association of State College and University Purchasing Professionals (VASCUPP) schools committed to using the one VHEPC Grainger contract. Results were a collective savings of $700,000 (15%) in year one of which Virginia Tech’s share was
$213,000. The university was also able to save 8.6 percent (approximately $200,000 annually) on Enterprise car rentals with all schools committing to use the one VHEPC agreement. In 2016-17, Virginia Tech served as the lead institution in negotiating the first VHEPC advertised RFP for a collaborative laboratory supplies contract. The contract was awarded to Fisher Scientific for an overall negotiated discount of 22 percent resulting in total anticipated annual savings of approximately $900,000 to all institutions; Virginia Tech’s share of those savings is estimated at $227,000 annually.

3. **Span of Control:** The university hired consultants in Summer 2017 to conduct a review of organizational structures and staffing analysis across seven administrative and academic support areas. This study concluded that overall most aspects of the organizational structures at Virginia Tech look reasonable and provided recommendations for streamlining the organizational structures for greater operational efficiencies. The university is in the process of evaluating the recommendations for implementation.

4. **Automation of Administrative Processes:** The University has developed and implemented plans for the automation of administrative systems that have supported administrative efficiencies. Some examples implemented in fiscal year 2017 include:

   a. The AcademicWorks platform was implemented as a means for improving scholarship management processes. This cloud-based software which was deployed in August 2017, introduces a single scholarship website for Virginia Tech which should make it easier to promote all available scholarships to the student population.

   b. Education Advisory Board’s Student Success Collaborative (SSC) was implemented in Spring 2017. This hosted solution enables Virginia Tech to use data and analytics to measurably improve student outcomes. By improving identification of at-risk students and managing student risk to resolution, improvements in student retention are being realized. The system uses predictive models to produce analytics concerning progress toward all degrees for use in real-time risk assessments, student behavioral trend analysis, and outcomes analysis. The SSC platform also provides a robust advising platform that includes tools for scheduling advising appointments, facilitating communications between advisors and students, and targeting resources based upon academic performance. This combination of analytics, interaction and workflow technology, and consulting tools is making it possible to support students and help them stay enrolled and graduate.
c. StarRez Housing System: The cloud-hosted StarRez housing software was implemented to replace the Banner housing module. By using the StarRez system, students are empowered to submit online housing applications and perform online roommate matching and room selection without extensive involvement from the housing staff.

d. OneCampus, a next-generation campus portal that makes it easy to locate and organize Virginia Tech web-based campus services in one mobile-friendly location, went into production in the summer of 2017. OneCampus provides a Google-like search tool that allows students, faculty, and staff to quickly locate and access services from any computer or mobile device.

5. **Shared Services in Targeted Areas**: The shared services model is being implemented by multiple management areas (University Advancement, VP for Operations, VP for Finance, etc.) to integrate financial, administrative, and information technology support at varying levels to enhance the quality and consistency of information and service to the departments. For example, the integration of information technology (IT) support at the management level provides a strategic approach to departmental IT needs. This includes consistent IT support, coordinated implementation of IT security and distributed system development. The university is exploring additional opportunities for the shared services model for effective and efficient service delivery.
Resource Development

DWIGHT SHELTON,
SR. VICE PRESIDENT FOR OPERATIONS AND ADMINISTRATION
Factors Considered in Revenue Budget Development

- Six-Year Plan (2.9%)
- General Fund support
- Nongeneral Fund Cost Assignments
- Cost Drivers
  - Compensation, fringe benefit rates
  - Other Costs (fixed costs, utilities, health & safety)
- University Budget Priorities
  - Enhanced Student Financial Aid to help Low- to Middle-Income families
  - Enrollment Growth
  - Strategic Initiatives (Destination Areas)
- Market Considerations
  - Currently studying elasticity of demand
- Many of these factors are not yet known for 2018-19
  - Yet we can make assumptions & run scenarios
Potential Options for Resourcing the Institution

- **Enrollment**
  - Target 30,000 undergraduates over 5 to 6 years. Pace reassessed annually
  - Fall 2017 undergraduate on-campus enrollment reached 27,140
    - 460 above the state enrollment plan
  - Residency mix currently 71% of undergraduates are from Virginia.
    - Regulated by the state. Other institutions: UVA: 69%, CWM: 65%

- **Rate**
  - Six-year plan included placeholder of 2.9% increase for 2018-19 and 2019-20
    - VT’s 2017-18 in-state undergraduate increase of 2.9% was the lowest in the state (state average 5.4%)

- **Program-Specific Fees**
  - Benchmarking study identified capacity to increase current and implement new program fees in key majors

- **General Fund** – Unrestricted resources can support university needs

- **Philanthropy** - Long-range strategy, unlikely to support basic operating needs
Tuition or Tuition & Mandatory Fees?

- Tuition & Mandatory Fees are paid by all students by residency. Excludes optional room and board charges.
- Because components can move independently, the same overall change in Tuition & Mandatory Fees can be achieved through multiple approaches, as shown below:

<table>
<thead>
<tr>
<th></th>
<th>2017-18</th>
<th>Example 1</th>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Undergraduate</td>
<td>Rate</td>
<td>Future Rate</td>
<td>Future Rate</td>
</tr>
<tr>
<td>Tuition and E&amp;G Fees</td>
<td>$11,263</td>
<td>$11,627</td>
<td>$11,590</td>
</tr>
<tr>
<td></td>
<td>3.2%</td>
<td>2.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Comprehensive Fee</td>
<td>1,967</td>
<td>1,987</td>
<td>2,024</td>
</tr>
<tr>
<td></td>
<td>1.0%</td>
<td>2.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Tuition &amp; Mandatory Fees</td>
<td>$13,230</td>
<td>$13,614</td>
<td>$13,614</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>
### Virginia Public Four-Year Tuition and Fees 2017-18

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Tuition and E&amp;G Fees</th>
<th>Tuition &amp; Mandatory Fees</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>William and Mary (Freshmen)</td>
<td>$16,506</td>
<td>$22,044</td>
<td>$33,843</td>
</tr>
<tr>
<td>Virginia Military Institute</td>
<td>8,884</td>
<td>18,214</td>
<td>27,450</td>
</tr>
<tr>
<td>University of Virginia (First Year)</td>
<td>13,810</td>
<td>16,068</td>
<td>27,060</td>
</tr>
<tr>
<td>Christopher Newport University</td>
<td>8,270</td>
<td>13,654</td>
<td>24,878</td>
</tr>
<tr>
<td>Virginia Commonwealth University</td>
<td>11,483</td>
<td>13,624</td>
<td>23,811</td>
</tr>
<tr>
<td>Longwood University</td>
<td>7,620</td>
<td>12,720</td>
<td>23,138</td>
</tr>
<tr>
<td>George Mason University</td>
<td>8,672</td>
<td>11,924</td>
<td>23,014</td>
</tr>
<tr>
<td>University of Mary Washington</td>
<td>8,306</td>
<td>12,128</td>
<td>22,344</td>
</tr>
<tr>
<td><strong>Virginia Tech</strong></td>
<td><strong>11,263</strong></td>
<td><strong>13,230</strong></td>
<td><strong>21,920</strong></td>
</tr>
<tr>
<td>James Madison University</td>
<td>6,250</td>
<td>10,878</td>
<td>20,990</td>
</tr>
<tr>
<td>Old Dominion University</td>
<td>6,648</td>
<td>10,350</td>
<td>20,472</td>
</tr>
<tr>
<td>UVA-Wise</td>
<td>5,529</td>
<td>9,825</td>
<td>20,139</td>
</tr>
<tr>
<td>Radford University</td>
<td>7,461</td>
<td>10,627</td>
<td>19,758</td>
</tr>
<tr>
<td>Virginia State University</td>
<td>5,547</td>
<td>8,726</td>
<td>19,606</td>
</tr>
<tr>
<td>Norfolk State University</td>
<td>5,478</td>
<td>9,036</td>
<td>18,902</td>
</tr>
</tbody>
</table>
### SCHEV’s Salary Analysis

<table>
<thead>
<tr>
<th>Inst</th>
<th>Est. FY 2018 Ranking to Peers</th>
<th>Annual Salary Increase</th>
<th>Req Tuit Incr if no add’l GF in FY2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNU</td>
<td>34%</td>
<td>4.0%</td>
<td>2.2%</td>
</tr>
<tr>
<td>CWM</td>
<td>25%</td>
<td>4.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>GMU</td>
<td>4%</td>
<td>5.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>JMU</td>
<td>36%</td>
<td>4.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>LU</td>
<td>42%</td>
<td>3.0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>NSU</td>
<td>55%</td>
<td>3.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>ODU</td>
<td>24%</td>
<td>4.0%</td>
<td>2.3%</td>
</tr>
<tr>
<td>RU</td>
<td>25%</td>
<td>4.0%</td>
<td>2.2%</td>
</tr>
<tr>
<td>UMW</td>
<td>29%</td>
<td>4.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>UVA</td>
<td>40%</td>
<td>3.0%</td>
<td>1.3%</td>
</tr>
<tr>
<td>UVAW</td>
<td>75%</td>
<td>2.0%</td>
<td>2.1%</td>
</tr>
<tr>
<td>VCU</td>
<td>29%</td>
<td>4.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>VMI</td>
<td>28%</td>
<td>4.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>VSU</td>
<td>33%</td>
<td>4.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>VT</td>
<td>27%</td>
<td>4.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>RBC</td>
<td>68%</td>
<td>2.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>VCCS</td>
<td>47%</td>
<td>3.0%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>
Costs for hypothetical scenarios

- **Salary/Fringe/Operation (NGF share)**
  - Compensation
  - Health Insurance and Fringe Benefit increases
  - Fixed Costs (leases, insurance, utilities)
  - O&M New Facilities
  - Library Inflationary Costs
  - $124M over 6 years

- **Enrollment Growth**
  - Partnership for Incentive Based Budget (PIBB)
  - Academic Support
  - Student Financial Aid
  - Enrollment Driven

- **Initiatives**
  - Destination Areas
  - Learning Systems & Effectiveness
  - Critical Needs
  - $33M over 6 years
Resource Assumptions (in all hypothetical scenarios)

- **General Fund**
  - Mandated Costs: Traditional fund split
  - Unrestricted: No new funding assumed

- **Reallocations**: $11.4M over 6 years

- **Pricing**: Vary by Scenario

- **Enrollment Mix**: Vary by Scenario
Problem Statement – Higher Education Model

- No enrollment growth. Revenue 2.9% tuition increases will fall short of known and projected expenses.

![Graph showing budget and revenue trends from 2018-19 to 2023-24.](image-url)

- Base Budget
- Salary/Fringe/Operating Growth
- New Initiatives
- Total Revenue

($44M)
Near-term and Future Scenarios

- University has near-term plan to address 2018-20 biennium
  - Assumes no material change in residency mix of the undergraduate class
  - Continues modest enrollment growth
  - Continued moderation of tuition increases
  - Enhanced program fees in select programs

- For the subsequent four years (FY21-FY24), **explore alternative hypothetical scenarios**
  - Continues growth to 30,000 by Fall 2023
  - Continued moderation of tuition increases
  - Consider mix of incremental enrollment
  - Rebasing of tuition
Short-term Solution 2018-20 Biennium

- Enrollment growth, moderate tuition increase of 2.9% per year, and enhanced program fees in specific programs can support known and projected expenses in the first two years.
Scenario A: Illustrates Covering Costs

- After first two years, options exist to address long-term needs and goals.
  - Growth of 1361:1446 over 4 years (result in 69%) and keep tuition increases to 2.9%. 

VIRGINIA TECH
Scenario B: Illustrates Advancing New Initiatives

- After first two years, options exist to address long-term needs and goals.
  - Growth of 1361:1446 over 4 years (results in 69%), add step increase of $1,000 for ISUG, move tuition at 1.9% for ISUG and 2.9% for OSUG.
Scenario D: Strategic Investments in Research Faculty and Student Financial Aid

- After first two years, options exist to address long-term needs and goals.
  - Growth 161:2646 over 4 years (results in 65%), add “step” increase of $1,000 for ISUG, move tuition at 1.9% for ISUG and 2.9% for OSUG.
## Review of FY21-FY24 Hypothetical Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>UG Size</th>
<th>IS:OOS Growth Mix in FY24</th>
<th>FY19-FY20 Tuition Increase (IS/OOS)</th>
<th>FY21-FY24 Tuition Increase (IS/OOS)</th>
<th>Step Increase (ISUG)</th>
<th>New/Increased Program Fees</th>
<th>Net Position by FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Growth Graph</td>
<td>27,193</td>
<td>0:0 71% ISUG</td>
<td>2.9%</td>
<td>2.9%</td>
<td>-</td>
<td>N/A</td>
<td>($44M)</td>
</tr>
<tr>
<td>A Graph</td>
<td>30,000</td>
<td>1361:1446 69% ISUG</td>
<td>2.9%</td>
<td>2.9%</td>
<td>-</td>
<td>Yes</td>
<td>($4M)</td>
</tr>
<tr>
<td>B Graph</td>
<td>30,000</td>
<td>1361:1446 69% ISUG</td>
<td>2.9%</td>
<td>1.9%/2.9%</td>
<td>$1,000</td>
<td>Yes</td>
<td>$10M</td>
</tr>
<tr>
<td>C</td>
<td>30,000</td>
<td>1361:1446 69% ISUG</td>
<td>2.9%</td>
<td>1.9%/2.9%</td>
<td>$1,000</td>
<td>Yes</td>
<td>$27M</td>
</tr>
<tr>
<td>D Graph</td>
<td>30,000</td>
<td>161:2646 65% ISUG</td>
<td>2.9%</td>
<td>1.9%/2.9%</td>
<td>$1,000</td>
<td>Yes</td>
<td>$28M</td>
</tr>
<tr>
<td>E</td>
<td>30,000</td>
<td>161:2646 65% ISUG</td>
<td>2.9%</td>
<td>1.9%/2.9%</td>
<td>$1,000</td>
<td>Yes</td>
<td>$44M</td>
</tr>
</tbody>
</table>
Discussion
University Debt Ratio and Debt Capacity

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 6, 2017

**Background:**

The university has provided an annual debt report to the Board of Visitors since 2006. The Restructuring Act and the university’s debt policy require that the university maintain a debt service to operations ratio of no greater than seven percent. In addition to the seven percent limitation, and based on guidelines provided by the Board of Visitors, management internally targets a five percent benchmark for planning purposes and subsequent recommendations to the Board.

The management of debt is critical to the success of the university’s capital program and to meeting one of the conditions of eligibility for restructured operational authority with the Commonwealth. The required condition is that the university maintain an unenhanced bond rating from Moody’s, Standard and Poor’s, or Fitch of at least AA- or its equivalent.

An established committee including representatives from Capital Assets and Financial Management, Investments and Debt Management, the Controller’s Office, and the Budget Office meets regularly to review debt activities and the timing of debt issuances to ensure compliance with the five percent debt ratio and potential impacts to credit ratings. The Vice President for Finance and Chief Financial Officer provides oversight of these activities.

**Status:**

The university currently has a Aa1 rating from Moody’s and a AA rating from S&P. At the conclusion of fiscal year 2017, the university had outstanding long-term debt of $494.2 million with a debt ratio of 3.67 percent. The estimated maximum outstanding debt capacity over the six-year projection period is $616 million using a five percent maximum debt ratio in accordance with the Board’s guidance.

As part of the university’s capital outlay planning and debt management program, the university will continue to develop capital outlay plans that advance projects within the debt policy and restructuring conditions and will carefully review each project in consideration of the university’s debt capacity before submitting project authorizations for debt to the Board.

**Planning for Governmental Accounting Standards Board Statement No. 87:**

The Governmental Accounting Standards Board (GASB) issued Statement No. 87 on June 28, 2017 to revise governmental lease accounting effective fiscal year 2021. The revision eliminates the distinction between operating and capital leases resulting in the recognition of operating lease commitments as long-term debt. Operating lease payments are...
currently recognized as operating expenses on the financial statements with no associated long-term debt obligation. The university projects that GASB 87 will result in higher debt ratios because of increased debt service due to the recognition of operating leases as long term debt in the debt report. Based on a review of the university’s historical trend of operating lease commitments and expenditures, the anticipated impact is an average increase of 110 basis points or 1.1 percent to the projected debt ratio beginning in fiscal year 2021. The university will continue to monitor GASB 87 implementation and actively consult with rating agencies regarding potential impact on credit ratings.

**Attachments:**

*Attachment A* includes the outstanding long term debt and debt ratio calculation for the current fiscal year and a summary of estimated potential issuances through fiscal year 2023, along with future debt ratios and related capacity for each year. The schedule includes a three-year trailing period through fiscal year 2026 to show the full impact of loading principal and interest payments.

*Attachment B* shows an illustration of the estimated timing of potential debt issuances for certain projects.

*Attachment C* shows a trend line of the university’s debt ratio from fiscal year 2002 to 2026. The debt ratio is calculated as debt service over operating expenditures. Management routinely examines, prioritizes, and adjusts the allocation plan to ensure the debt ratio remains within five percent.

*Attachment D* shows an estimated impact of GASB 87 on the university’s debt ratio from fiscal year 2021 to 2026.

*Attachment E* shows a benchmark comparison of fiscal year 2016 debt ratios from Moody’s for Virginia Tech and 23 other peer institutions, which are calculated as debt service over operating expenditures.

**RECOMMENDATION:**

That the report on University Debt Ratio and Debt Capacity for fiscal year 2017, including the ongoing guidance to manage debt issuances at a level that ensures that the debt ratio does not exceed five percent of operating expenditures, be accepted.

November 6, 2017
## University Debt Ratio and Debt Capacity Based on Expected Debt Issuances

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**  
October 2, 2017  
(Dollars in Thousands)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Term Debt Outstanding, Start of Year</td>
<td>$525,553</td>
<td>$494,210</td>
<td>$488,640</td>
<td>$516,073</td>
<td>$709,192</td>
<td>$676,945</td>
<td>$770,460</td>
<td>$801,452</td>
<td>$748,311</td>
<td>$693,419</td>
</tr>
<tr>
<td>Net New Long-Term Debt Issuance</td>
<td>-</td>
<td>26,293</td>
<td>61,115</td>
<td>228,099</td>
<td>9,450</td>
<td>136,200</td>
<td>81,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Current Year Refunding Bonds</td>
<td>$91,791</td>
<td>(87,914)</td>
<td>(31,863)</td>
<td>(33,682)</td>
<td>(34,981)</td>
<td>(41,697)</td>
<td>(42,885)</td>
<td>(50,008)</td>
<td>(53,141)</td>
<td>(56,840)</td>
</tr>
<tr>
<td>Current Year Refunded / Defeased Bonds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Long-Term Debt Repayment</td>
<td>(35,220)</td>
<td>(31,863)</td>
<td>(33,682)</td>
<td>(34,981)</td>
<td>(41,697)</td>
<td>(42,885)</td>
<td>(50,008)</td>
<td>(53,141)</td>
<td>(56,840)</td>
<td>(56,840)</td>
</tr>
<tr>
<td>Total Long-Term Debt Outstanding, End of Year</td>
<td>$494,210</td>
<td>$488,640</td>
<td>$516,073</td>
<td>$709,192</td>
<td>$676,945</td>
<td>$770,460</td>
<td>$801,452</td>
<td>$748,311</td>
<td>$693,419</td>
<td>$636,579</td>
</tr>
</tbody>
</table>

### Total Debt Service
- $50,071 (1)
- $51,593
- $53,751
- $57,658
- $59,796
- $69,933
- $71,751
- $78,098
- $79,261
- $81,867

### Total Operating Expenditures
- $1,364,733 (1)
- $1,404,720
- $1,446,861
- $1,490,267
- $1,534,975
- $1,581,024
- $1,628,455
- $1,669,166
- $1,710,896
- $1,753,668

### Debt Ratio
- 3.67%
- 3.67%
- 3.72%
- 3.87%
- 3.90%
- 4.42%
- 4.41%
- 4.68%
- 4.63%
- 4.67%

### Additional Allowable Debt Service
- $68,237
- $70,236
- $72,343
- $74,513
- $76,749
- $79,051
- $81,423
- $83,458
- $85,545
- $87,683

### Additional Debt Capacity (at 5%)
- $271,513
- $269,817
- $266,645
- $238,481
- $237,707
- $127,271
- $133,801
- $74,162
- $86,934
- $80,460

### Assumptions:
* Total Operating Expenditures for FY18 through FY26 are estimated based on the following growth rate: 2.93% for FY18, 3.0% for FY19-FY23, and 2.5% for FY24 and thereafter.
* Estimated Cost of Capital includes: 3.30% for FY18; 3.40% for FY19; 3.55% for FY20; 3.65% for FY21, 3.70% for FY22, and 3.80% thereafter.

### Notes:
1. (1) Unaudited actual.
2. (2) Debt ratio projections for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease accounting. Attachment D provides an initial projection of the impact on the debt ratios.
### Illustration of Debt Allocations Within a Five Percent Ratio

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**

As of October 2, 2017

**Dollars in Thousands**

<table>
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<td>Business Learning Community (academic)</td>
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<td>Residential Renovations of Existing Facilities</td>
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<td>$-</td>
<td>$-</td>
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<td>$542,157</td>
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</table>

**Net Capacity at five percent ratio**

$271,513  $269,817  $266,645  $238,481  $237,707  $127,271  $133,801  $74,162  $86,934  $80,460

* Debt to be authorized.
Projected ratios for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease accounting. Attachment D provides an initial projection of the impact on the debt ratios.
University Debt Ratio Trend
Projected Impact of GASB 87 - - Inclusion of Operating Leases

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 2, 2017

Maroon = Actual Debt Burden Ratio
Orange = Projected Debt Burden Ratio
Blue = Trailing Period Debt Burden Ratio
Green = Impact of Operating Leases

Presentation Date: November 6, 2017
Fiscal Year 2016 Debt Ratio Benchmarking of Peers

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 2, 2017

Based on SCHEV Peer Group and UVA

Debt Ratio and Debt Capacity

November 6, 2017

Bob Broyden, Assistant Vice President for Capital Assets and Financial Management

John Cusimano, University Treasurer and Associate Vice President for Finance-VT Foundation
Debt Ratio and Credit Rating Requirements

5.0% Debt Ratio

AA- Credit Rating
Current Status: Debt Ratio and Credit Ratings

- 5.0% Debt Ratio
- 3.67% Credit Rating
- AA S&P
- Aa1 Moody’s
Gross Capacity Projections FY2023

- Operating Expenditures
- Retirement of Existing Debt
- Cost Of Capital
- Amortization Schedules

$616M
7 Years
University Debt Ratio Trend


Projected ratios for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease accounting.
Impact of Governmental Accounting Standards Board (GASB) Statement No. 87

![Graph showing the impact of GASB Statement No. 87 on financial ratios and projected issuances over fiscal years 2017 to 2028. The graph includes a line graph illustrating the Board Guideline (5% Ratio) and a bar chart showing the estimated issuances and trailing period for each fiscal year.]
Benchmarking of Peers

Based on SCHEV Peer Group and UVA
Questions?
RESOLUTION TO INTEGRATE THE VIRGINIA TECH CARILION SCHOOL OF MEDICINE INTO VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

WHEREAS, Virginia Polytechnic Institute and State University (“Virginia Tech”) and Carilion Clinic have a long history of collaborative research and development of programs that are beneficial to both parties, as well as a history of strengthening the state, local, and surrounding Southwest Virginia economies with increased research funding and private investment; and

WHEREAS, the parties established a medical school titled the Virginia Tech Carilion School of Medicine to assist in the alleviation of the shortage of physician specialists in the Southwest Virginia region; and

WHEREAS, consistent with Virginia Tech’s strategic initiatives, biomedical education and research are areas of special interest for the continued growth of Virginia Tech; and

WHEREAS, on August 29, 2016, the Virginia Tech Board of Visitors affirmed its intent to acquire and integrate the Virginia Tech Carilion School of Medicine into Virginia Tech as its ninth college; and

WHEREAS, the acquisition and integration of the Virginia Tech Carilion School of Medicine into Virginia Tech requires notification, review, and approval by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the State Council of Higher Education for Virginia (SCHEV), the Virginia Tech Board of Visitors, the Carilion Clinic Board of Directors, and the Virginia Tech Carilion School of Medicine Board of Directors, and other accrediting or regulatory bodies, as required;

NOW, THEREFORE, BE IT RESOLVED that effective July 1, 2018, the Virginia Tech Carilion School of Medicine will be acquired and fully integrated into Virginia Polytechnic Institute and State University as its ninth college.

RECOMMENDATION:

That the resolution expressing the intent to integrate the Virginia Tech Carilion School of Medicine into Virginia Tech be approved.

November 6, 2017
The Financial Performance Report of income and expenditures is prepared from two sources: actual accounting data as recorded at Virginia Tech and the annual budgets which are also recorded in the university accounting system. The actual accounting data reflect the modified accrual basis of accounting, which recognizes revenues when received rather than when earned and commitments to buy goods and services as encumbrances when obligated and as an expenditure when paid. The Original Budget was approved by the Board of Visitors at the June meeting. The Adjusted Budget reflects adjustments to incorporate actual experience or changes made during the fiscal year. These changes are presented for review and approval by the Finance and Resource Management Committee and the Board of Visitors through this report. Where adjustments impact appropriations at the state level, the university coordinates with the Department of Planning and Budget to ensure appropriations are reflected accurately.

The July to September 2017-18 budget (year-to-date) is prepared from historical data which reflects trends in expenditures from previous years as well as known changes in timing. Differences between the actual income and expenditures and the year-to-date budget may occur for a variety of reasons, such as an accelerated or delayed flow of documents through the accounting system, a change in spending patterns at the college level, or increases in revenues for a particular area.

Quarterly budget estimates are prepared to provide an intermediate measure of income and expenditures. Actual revenues and expenditures may vary from the budget estimates. The projected year-end budgets are, however, the final measure of budgetary performance.
### Educational and General Programs

#### University Division

<table>
<thead>
<tr>
<th>Revenues</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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<td>$45,719</td>
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<td>$161,675</td>
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<td>Tuition and Fees</td>
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<td>39,350</td>
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<td><strong>Total Revenues</strong></td>
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<td><strong>$702,975</strong></td>
<td><strong>$711,750</strong></td>
<td><strong>$8,775</strong></td>
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<table>
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<tr>
<th>Expenses</th>
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<td>-$107,276</td>
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<td>-1,498</td>
<td>-263,011</td>
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<td><strong>Total Expenses</strong></td>
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<td><strong>-$174,799</strong></td>
<td><strong>-3,282</strong></td>
<td><strong>-$702,975</strong></td>
<td><strong>-$711,750</strong></td>
<td><strong>-$8,775</strong></td>
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</table>

| **NET**                      | **$126,453**| **$138,601**| **-12,148**| **$0**        | **$0**      | **$0**  |

#### CE/AES Division

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<th>Budget</th>
<th>Change</th>
<th>Original</th>
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<th>Change</th>
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<td>All Other Income</td>
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<td><strong>Total Revenues</strong></td>
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<td><strong>$87,481</strong></td>
<td><strong>$87,526</strong></td>
<td><strong>$45</strong></td>
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<table>
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<td><strong>-$87,481</strong></td>
<td><strong>-$87,526</strong></td>
<td><strong>-$45</strong></td>
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| **NET**                      | **$8,675**| $1,290     | $7,385 | $0           | $0          | $0      |

#### Auxiliary Enterprises

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#### Sponsored Programs

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#### Student Financial Assistance

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#### All Other Programs *

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<tr>
<td>Expenses</td>
<td>-$1,025</td>
<td>-$1,234</td>
<td>209</td>
<td>-$7,399</td>
<td>-$10,343</td>
<td>-2,635</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-733</td>
<td>-457</td>
<td>-276</td>
<td>0</td>
<td>455</td>
<td>455</td>
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<tr>
<td><strong>NET</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
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</table>

#### Total University

<table>
<thead>
<tr>
<th>Revenues</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>$553,078</td>
<td>$560,972</td>
<td>-$7,894</td>
<td>(14)</td>
<td>$1,500,883</td>
<td>$1,512,448</td>
<td>$11,565</td>
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<tr>
<td>Expenses</td>
<td>-$398,082</td>
<td>-$422,647</td>
<td>24,565</td>
<td>-$1,494,187</td>
<td>-$1,523,257</td>
<td>-29,070</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-19,868</td>
<td>1,566</td>
<td>-21,434</td>
<td>-6,696</td>
<td>10,809</td>
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<tr>
<td><strong>NET</strong></td>
<td><strong>$135,128</strong></td>
<td><strong>$139,891</strong></td>
<td><strong>-4,763</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
<td><strong>$0</strong></td>
</tr>
</tbody>
</table>

* All Other Programs include federal work study, surplus property, and unique military activities.

Presentation Date: November 6, 2017
OPERATING BUDGET

1. Tuition and Fee revenue collections are behind historical projections due to the timing of tuition collections.
2. Activity levels are lower than projected in Continuing Education – Language and Culture Institute programs.
3. Academic program expenditures exceed projections due to timing of research programs and start-up expenditures.
4. Support program expenditures exceed projections due to costs associated with renovations in the Library for digital liberal arts and social sciences hub as well as the continued investment in diversity and inclusion programs which were committed early in the fiscal year.
5. The budget for federal revenue is established to match projected allotments from the federal government that are expected to be drawn down during the state fiscal year. All expenses in federal programs are covered by drawdowns of federal revenue up to allotted amounts. Federal revenue in the Cooperative Extension/Agriculture Experiment Station Division was greater than the projected budget due to the timing of federal draw that were requested in 2016-17, but received in 2017-18.
6. Quarterly and projected annual variances are explained in the Auxiliary Enterprises section of this report.
7. Historical patterns have been used to develop a measure of the revenue and expenditure activity for Sponsored Programs. Actual revenues and expenses may vary from the budget estimates because projects are initiated and concluded on an individual basis without regard to fiscal year. Total sponsored research revenues and expenses are less than projected. Total sponsored research expenditures are 0.5% greater than September 30, 2016.
8. Expenses for All Other Programs were less than projected due to timing of surplus property expense activity.
9. The annual budget for Tuition and Fees has been increased $1.7 million for the finalization of the budgets for tuition and E&G fees. The budget for Tuition and Fees has been increased $8.6 million due to higher than projected undergraduate enrollment, lower than projected enrollment in the graduate programs, and a decrease in Summer session revenues. The corresponding expenditure budgets have been adjusted accordingly.
10. The All Other Income revenue budget for the University Division has been decreased $1.4 for budget finalizations in Sales and Services and Continuing Education. The corresponding expenditure budgets have been adjusted accordingly.
11. The General Fund revenue budget was increased $45,441 for adjustments to the state central fund distribution. The corresponding expenditure budgets have been adjusted accordingly.
12. The Sponsored Programs revenue and expense budgets were increased $705,132 to finalize budgets.
13. During budget finalizations, the Student Financial Assistance general funds revenue and expense budgets were increased $687,145. In the first quarter of 2017-18, the Student Financial Assistance revenue and expenditure budgets were increased $384,000 to facilitate enrollment growth beyond the originally planned enrollment growth.
14. The projected annual budgets for All Other Programs was increased $2.2 million to finalize budgets and $454,293 for outstanding 2016-17 commitments that were initiated but not completed before June 30, 2017.
## UNIVERSITY DIVISION
### AUXILIARY ENTERPRISES

Dollars in Thousands

<table>
<thead>
<tr>
<th>Residence and Dining Halls *</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$46,350</td>
<td>$45,173</td>
<td>$1,177 (1)</td>
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<td></td>
<td></td>
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<tr>
<td>Expenses</td>
<td>-29,180</td>
<td>-29,534</td>
<td>354</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
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<td>-15,639</td>
<td>-1,531</td>
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<table>
<thead>
<tr>
<th>Parking and Transportation</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
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<tbody>
<tr>
<td>Revenues</td>
<td>$6,477</td>
<td>$6,338</td>
<td>$139</td>
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<tr>
<td>Expenses</td>
<td>-2,295</td>
<td>-2,472</td>
<td>177</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
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<td>-316</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<table>
<thead>
<tr>
<th>Telecommunications Services</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
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<tr>
<td>Revenues</td>
<td>$5,972</td>
<td>$6,018</td>
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<tr>
<td>Expenses</td>
<td>-5,999</td>
<td>-5,902</td>
<td>-97</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
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<td>143</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<table>
<thead>
<tr>
<th>University Services * **</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$23,793</td>
<td>$23,564</td>
<td>$229</td>
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<tr>
<td>Expenses</td>
<td>-15,493</td>
<td>-17,788</td>
<td>2,295 (2)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
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<td>-5,776</td>
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<td>$0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Intercollegiate Athletics *</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$25,989</td>
<td>$25,572</td>
<td>$417</td>
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<tr>
<td>Expenses</td>
<td>-21,857</td>
<td>-20,936</td>
<td>-921 (3)</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-4,132</td>
<td>-4,636</td>
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<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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</table>

<table>
<thead>
<tr>
<th>Electric Service *</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$7,152</td>
<td>$7,326</td>
<td>$-174</td>
</tr>
<tr>
<td>Expenses</td>
<td>-8,764</td>
<td>-8,781</td>
<td>17</td>
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<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>1,612</td>
<td>1,455</td>
<td>157</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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</table>

<table>
<thead>
<tr>
<th>Inn at Virginia Tech/Skelton Conf. Center</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$4,476</td>
<td>$3,879</td>
<td>$597 (4)</td>
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<tr>
<td>Expenses</td>
<td>-4,016</td>
<td>-4,018</td>
<td>2</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-460</td>
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<td>-599</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Enterprise Functions ***</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$5,418</td>
<td>$5,252</td>
<td>$166</td>
</tr>
<tr>
<td>Expenses</td>
<td>-4,768</td>
<td>-4,900</td>
<td>132</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-650</td>
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<td>-298</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<table>
<thead>
<tr>
<th>TOTAL AUXILIARIES</th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$125,627</td>
<td>$123,122</td>
<td>$2,505</td>
</tr>
<tr>
<td>Expenses</td>
<td>-92,372</td>
<td>-94,331</td>
<td>1,959</td>
</tr>
<tr>
<td>Reserve Drawdown (Deposit)</td>
<td>-33,255</td>
<td>-28,791</td>
<td>-4,464</td>
</tr>
<tr>
<td>Net</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

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* University Systems include Dormitory and Dining Hall System, University Services System, Intercollegiate Athletics System, and Electric Service System. The Systems were created to provide assurance to bond holders that system revenues are pledged for the payment of debt service and to allow for dedicated repair and replacement that are not subject to liens of any creditor of the university.

** University Services System includes Career Services, Center for the Arts, Health Services, Recreational Sports, Student Centers & Activities, Student Organizations, and the VT Rescue Squad.

*** Other Enterprise Functions include Golf Course, Hokie Passport, Library Café, Library Photocopy, Licensing & Trademark, Little Hokie Hangout, New Student and Family Programs, Pouring Rights, Printing Services, Software Sales, Student Athlete Academic Support Services (SAASS), Tailor Shop and Clearing Accounts.

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Presentation Date: November 6, 2017
AUXILIARY ENTERPRISE BUDGET

1. Revenues in Residence and Dining Halls are higher than projected due to dorm occupancy and Dining self-generated revenue being greater than planned.

2. Expenses for the University Services System are lower than projected due to the timing of expenses.

3. Expenses for Intercollegiate Athletics are higher than projected due to higher than anticipated sport operating and project expenses. A second quarter budget adjustment request is anticipated.

4. Revenues for the Inn at Virginia Tech and Skelton Conference Center are higher than projected due to timing of revenues.

5. The projected annual expense and reserve budgets for Auxiliary Enterprises were adjusted $77,093 for state compensation actions for high-turnover positions.

6. The projected annual expense budget for Auxiliary Enterprises was adjusted for $5.9 million in outstanding 2016-17 commitments and projects that were initiated but not completed before June 30, 2017. This amount includes $1.0 million for Residence Halls, $3.2 million in Dining Hall commitments and projects, and $0.3 million for Electric Service. The remainder is spread across the other auxiliary programs.

7. The projected annual expense and reserve budgets for the Auxiliary Enterprises were increased $462,322 for the auxiliary share of the state’s assessment of a one-time Virginia Retirement System (VRS) investment in 2015 which lowered future VRS actuarial rates.

8. The projected annual expense and reserve budgets for Telecommunications Services were increased for enhancement of network security software.

9. The projected annual expense and reserve budgets for the University Services System were adjusted for two additional counseling positions for Cook Counseling Center, Career and Professional Development personnel, and health and recreation sports services in Roanoke.

10. The projected annual expense and reserve draw budgets for Intercollegiate Athletics were decreased $1.1 million for the technical realignment of Student Athlete Academic Support Services.

11. The projected annual revenue and expense budgets for the Electric Services auxiliary were adjusted for decreased 2017-18 cost of wholesale electricity.

12. The projected annual revenue, expense, and reserve budgets for the Inn at Virginia Tech and Skelton Conference Center were increased $776,680 for construction of an outdoor patio.

13. The projected annual revenue, expense, and reserve budget for Other Enterprise Functions were increased for Licensing and Trademark activity, student affairs operating support, and $10.0 million internal financing of board approved Athletics facilities improvements project.
### EDUCATIONAL AND GENERAL PROJECTS

#### Design Phase

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>Support Fund</th>
<th>Revenue Bond</th>
<th>Total Budget</th>
<th>Cumulative Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities</td>
<td>Sep 2013</td>
<td>$6,000</td>
<td>$8</td>
<td>-</td>
<td>-</td>
<td>$9,363</td>
<td>$897 (1)</td>
</tr>
<tr>
<td>Renovate Undergraduate Science Laboratories</td>
<td>Jul 2016</td>
<td>6,250</td>
<td>228</td>
<td>-</td>
<td>10,000</td>
<td>16,250</td>
<td>651 (2)</td>
</tr>
<tr>
<td>Agriculture Production Facilities</td>
<td>Oct 2016</td>
<td>1,080</td>
<td>128</td>
<td>22,136</td>
<td>-</td>
<td>23,216</td>
<td>149 (3)</td>
</tr>
<tr>
<td>Health Sciences &amp; Technology</td>
<td>Oct 2016</td>
<td>10,200</td>
<td>-</td>
<td>48,307</td>
<td>17,765</td>
<td>66,072</td>
<td>0 (5)</td>
</tr>
<tr>
<td>Holden Hall Renovation</td>
<td>Oct 2016</td>
<td>3,840</td>
<td>253</td>
<td>44,386</td>
<td>-</td>
<td>48,232</td>
<td>1,154 (6)</td>
</tr>
<tr>
<td>Gas-Fired Boiler at the Central Steam Plant</td>
<td>Apr 2017</td>
<td>3,375</td>
<td>2</td>
<td>44,800</td>
<td>-</td>
<td>48,175</td>
<td>2 (7)</td>
</tr>
<tr>
<td>Planning: Intelligent Infrastructure and Construction Complex</td>
<td>Apr 2017</td>
<td>2,880</td>
<td>-</td>
<td>-</td>
<td>6,000</td>
<td>6,000</td>
<td>0 (8)</td>
</tr>
<tr>
<td>Planning: Undergraduate Science Laboratory Building</td>
<td>Jul 2017</td>
<td>2,500</td>
<td>-</td>
<td>-</td>
<td>3,084</td>
<td>3,084</td>
<td>0 (9)</td>
</tr>
</tbody>
</table>

#### Construction Phase

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>Support Fund</th>
<th>Revenue Bond</th>
<th>Total Budget</th>
<th>Cumulative Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Reserve</td>
<td>On-going</td>
<td>12,860</td>
<td>1,778</td>
<td>20,297</td>
<td>-</td>
<td>20,297</td>
<td>7,185 (10)</td>
</tr>
<tr>
<td>Academic Buildings Renewal</td>
<td>Sep 2013</td>
<td>18,600</td>
<td>3,457</td>
<td>35,029</td>
<td>-</td>
<td>35,029</td>
<td>9,231 (11)</td>
</tr>
<tr>
<td>Address Fire Alarm Systems and Access</td>
<td>Jun 2014</td>
<td>1,265</td>
<td>77</td>
<td>4,891</td>
<td>-</td>
<td>4,891</td>
<td>3,301 (12)</td>
</tr>
</tbody>
</table>

#### Close-Out

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>Support Fund</th>
<th>Revenue Bond</th>
<th>Total Budget</th>
<th>Cumulative Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Building</td>
<td>Dec 2012</td>
<td>1,050</td>
<td>421</td>
<td>42,652</td>
<td>-</td>
<td>42,652</td>
<td>42,023 (13)</td>
</tr>
<tr>
<td>Biocomplexity Data Center</td>
<td>Sep 2015</td>
<td>900</td>
<td>286</td>
<td>-</td>
<td>5,900</td>
<td>5,900</td>
<td>5,036 (14)</td>
</tr>
<tr>
<td>Eastern Shore AREC Storage Building</td>
<td>Apr 2016</td>
<td>381</td>
<td>292</td>
<td>-</td>
<td>535</td>
<td>535</td>
<td>447 (15)</td>
</tr>
</tbody>
</table>

#### TOTAL EDUCATIONAL AND GENERAL PROJECTS

<table>
<thead>
<tr>
<th>Project Initiated</th>
<th>Total Annual Budget</th>
<th>Total YTD Budget</th>
<th>Support Fund</th>
<th>Total Revenue Bond</th>
<th>Total Budget</th>
<th>Cumulative Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$75,221</td>
<td>$7,469</td>
<td>$258,085</td>
<td>$50,084</td>
<td>$359,259</td>
<td>$70,670</td>
</tr>
</tbody>
</table>

**Presentation Date: November 6, 2017**
CAPITAL OUTLAY BUDGET

Educational and General Projects

1. This project is to provide a metabolism research laboratory, an applied reproduction facility, and a building for animal demonstration, handling, and holding spaces. The state authorized design funding effective July 2013 and construction funding effective July 2015. The project design is being modified and rebid a second time because of cost overruns with bids expected due October 2017.

2. This project will renovate seven laboratories within Derring Hall and Hahn Hall to accommodate the increased demand for introductory undergraduate science laboratory classes in biology, chemistry, physics, and microbiology. Working Drawings are underway and construction is expected to begin late fall 2017. The annual budget was adjusted in the first quarter to reflect the Board’s construction authorization at the June 2017 meeting.

3. This project is for the first of two phases to renew the existing facilities for the livestock and poultry programs. This first phase includes an approximate total scope of 126,000 gross square feet of new and renovated facilities at the Blacksburg campus and three nearby university production and research farms. Schematic design is underway.

4. This project continues the strategic infrastructure advancements initiated by the Chiller Plant, Phase I project. This Phase II project includes the upgrade of campus utility systems and addresses several strategic needs for shifting the campus to a lower resource consuming cooling service with improved redundancies. Preliminary design is underway.

5. This project calls for a Public Private Partnership delivery of 139,300 gross square foot research and training building located adjacent to the existing Virginia Tech-Carilion Research Institute facility in Roanoke, Virginia. Major construction is expected to begin in December 2017.

6. This project is for a complete renovation and 60,000 gross square foot expansion of Holden Hall to accommodate the instruction and research programs of Materials Science and Engineering, Mining and Minerals Engineering, and Computer Science Engineering. Schematic design is nearly complete.

7. This project will design, purchase, and install a new Gas-Fired Boiler within the Central Steam Plant. An A/E firm has been selected and preliminary design is underway.

8. This planning project is for Hitt Hall, the Fusion Laboratories, and the Smart Dining Center. The total project funding plan calls for $50 million to cover the three programs.

9. This planning project is for an entirely state funded 102,000 gross square foot science laboratory building adjacent to the new classroom building. The university will temporarily fund planning with nongeneral funds until the project is authorized for construction. This temporary infusion will be reimbursed once the project is fully funded by the state. An A/E firm has been selected and programming is complete.

10. The total project budget amount reflects the balance of Maintenance Reserve appropriation carried forward from fiscal year 2017 and the state’s fiscal year 2018 Maintenance Reserve appropriation of $9.719 million. The state maintenance reserve program requires a biennial budget expenditure of 85 percent, which is $17.3 million for the 2016-18 biennium.

11. This project is for the renovation of three academic buildings located in the core of main campus bordering the Drillfield: Davidson Hall-Front Section, Sandy Hall, and the Liberal Arts Building. The project is under construction with substantial completion expected in summer 2018.

12. This project supports progress on fire alarm systems and accessibility improvements for several E&G buildings. The State has appropriated $4.89 million of General Fund resources for the total project budget of which $4.58 million has been committed to the following nine projects underway or completed: Food Science and Technology Building, Architecture Annex, Wallace Annex, War Memorial Hall, Lane Hall, Whittemore Hall, Patton Hall, Randolph Hall, and Norris Hall.

13. The project is complete and occupied since August 2016. The project may be closed and financial accounts terminated when final invoices are received and paid.

14. The project is complete and occupied since July 2017. The project may be closed and financial accounts terminated when final invoices are received and paid.

15. The project is complete and occupied since August 2017. The project may be closed and financial accounts terminated when final invoices are received and paid.
**Capital Outlay Projects Authorized as of September 30, 2017 (Continued)**

Dollars in Thousands

<table>
<thead>
<tr>
<th>PROJECT INITIATED</th>
<th>ANNUAL EXPENSES</th>
<th>YTD EXPENSES</th>
<th>STATE SUPPORT</th>
<th>NONGENERAL FUND</th>
<th>REVENUE BOND</th>
<th>TOTAL BUDGET</th>
<th>CUMULATIVE EXPENSES</th>
</tr>
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<tbody>
<tr>
<td><strong>AUXILIARY ENTERPRISE PROJECTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Design Phase</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning: Student Wellness Services</td>
<td>Jun 2016</td>
<td>$2,259</td>
<td>$195</td>
<td>-</td>
<td>$2,785</td>
<td>$2,785</td>
<td>$721 (1)</td>
</tr>
<tr>
<td>Creativity &amp; Innovation District Residence Hall</td>
<td>Oct 2016</td>
<td>3,200</td>
<td>84</td>
<td>-</td>
<td>26,818</td>
<td>26,818</td>
<td>339 (2)</td>
</tr>
<tr>
<td>Dietrick First Floor and Plaza Renovation</td>
<td>Sept 2017</td>
<td>500</td>
<td>-</td>
<td>-</td>
<td>5,000</td>
<td>2,000</td>
<td>7,000 - (3)</td>
</tr>
<tr>
<td><strong>Construction Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance Reserve</td>
<td>On-going</td>
<td>7,000</td>
<td>3,280</td>
<td>-</td>
<td>7,000</td>
<td>-</td>
<td>7,000 3,280 (4)</td>
</tr>
<tr>
<td>Unified Communications &amp; Network Renewal</td>
<td>Apr 2012</td>
<td>1,637</td>
<td>7</td>
<td>-</td>
<td>9,564</td>
<td>6,944</td>
<td>16,508 14,878 (5)</td>
</tr>
<tr>
<td>Lane Substation Expansion</td>
<td>Sept 2015</td>
<td>4,000</td>
<td>38</td>
<td>-</td>
<td>2,000</td>
<td>4,500</td>
<td>6,500 765 (6)</td>
</tr>
<tr>
<td>O’Shaughnessy Renovation</td>
<td>Apr 2016</td>
<td>16,000</td>
<td>2,790</td>
<td>-</td>
<td>8,867</td>
<td>12,633</td>
<td>21,500 5,021 (7)</td>
</tr>
<tr>
<td>Athletic Facilities Improvements</td>
<td>Aug 2016</td>
<td>20,000</td>
<td>7,139</td>
<td>-</td>
<td>37,500</td>
<td>-</td>
<td>37,500 13,236 (8)</td>
</tr>
<tr>
<td><strong>Close-Out</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Quad Residential Facilities</td>
<td>May 2013</td>
<td>4,668</td>
<td>197</td>
<td>-</td>
<td>35,671</td>
<td>53,729</td>
<td>89,400 83,293 (9)</td>
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<tr>
<td>Residential Door Access Improvements</td>
<td>Dec 2015</td>
<td>300</td>
<td>102</td>
<td>-</td>
<td>7,735</td>
<td>-</td>
<td>7,735 13,236 (10)</td>
</tr>
</tbody>
</table>

**TOTAL AUXILIARY ENTERPRISE PROJECTS**  
$59,564 $13,832 $ - $113,337 $109,408 $222,746 $128,613

**GRAND TOTAL**  
$134,785 $21,301 $258,085 $163,421 $160,498 $582,004 $199,284

**RECOMMENDATION:**

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2017 through September 30, 2017 and the Capital Outlay report be approved.

November 6, 2017
Auxiliary Enterprises Projects

1. This planning project is to explore alternatives and prepare programming documents for an expanded, comprehensive student wellness services solution to meet student expectations and accreditation requirements. The annual budget was adjusted in the first quarter to reflect expected cash outflows for fiscal year 2018.

2. This project is for a new 530 bed residential community that will include academic collaborative spaces to support creativity and innovation activities and the athletics program. A programming study is underway to identify the necessary building requirements, project budget, cost review, delivery method, and schedule. The current project authorization reflects a traditional 350 bed residential program. The authorization will need adjustment based on the results of the programming study.

3. This project includes refurbishing the first floor of Dietrick Hall, inserting a modern food service venue, enclosing 6,400 gross square feet of overhang, and improvements to the outdoor plaza. The budget was established in the first quarter to reflect the Board’s authorization of the project at the September 2017 meeting.

4. Projects are scheduled and funded by the auxiliary enterprises during the annual Auxiliary Enterprise budgeting process. The units prepare five-year plans that outline their highest priority deferred maintenance needs. The annual budget and total project budget reflect the spending plans of the auxiliary units on scheduled maintenance reserve work for fiscal year 2018. The auxiliary maintenance reserve program covers 104 assets with a total replacement value of $1.1 billion.

5. This project includes improvements to four communication infrastructure components: the unified communications system, upgrading the Internet Protocol (IP) Network, upgrading the cable plant, and upgrading equipment rooms in various facilities. This project is being implemented in phases and is anticipated to be complete in spring 2018. The budget was adjusted in the first quarter to reflect expected cash outflows for fiscal year 2018.

6. This project will expand the Lane Substation on Innovation Drive. The project includes the purchase and installation of two 28,000 kilovolt-amps (kVA) transformers, two circuit switchers, six distribution reclosers with space for an additional four reclosers, a control house and associated relay, and control equipment. The project should be complete in late 2018.

7. This project will update O’Shaughnessy Hall’s interior; mechanical, electrical, and plumbing systems; elevators; address other deferred maintenance items as needed; and installing air conditioning. Improvements include converting O’Shaughnessy into a living-learning community to modernize the residential program within the building. Construction started late spring 2017 with occupancy expected fall 2018.

8. This project includes four high priority Athletic facility improvements: Rector Field House, Baseball Facilities, athletic nutrition center, and Tennis Facilities. Construction for Rector Field House and Baseball Facilities is underway with completion of both expected late spring of 2018. Feasibility studies are complete for an athletic nutrition center and Tennis Facilities improvements.

9. This project is substantially complete. The total cost is expected to be $89.4 million. The project may be closed and financial accounts terminated when final invoices are received and paid.

10. This project is substantially complete. The total cost is expected to be $7.735 million. The project may be closed and financial accounts terminated when final invoices are received and paid.
Project Expenses by Activity
First Quarter

<table>
<thead>
<tr>
<th>Activity</th>
<th>Dollars in Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Budget</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>$26,802</td>
</tr>
<tr>
<td>Construction</td>
<td>$99,469</td>
</tr>
<tr>
<td>Close Out</td>
<td>$8,515</td>
</tr>
<tr>
<td>Expenses to Date</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>$1,437</td>
</tr>
<tr>
<td>Construction</td>
<td>$18,565</td>
</tr>
<tr>
<td>Close Out</td>
<td>$1,299</td>
</tr>
</tbody>
</table>

Presentation Date: November 6, 2017
E&G Budget

- University Division
  - Tuition and Fee: $10.3M increase comprised of:
    - Budget Finalization $1.7M
    - Summer Variance (2.0M)
    - Fall Variance:
      - On-Campus
        - Undergraduate 13.8M
        - Financial Aid (0.4M)
        - Graduate (3.9M)
        - Veterinary Medicine 0.1M
      - Off Campus 1.0M
  - General Fund: $328k increase actual central appropriation distribution

- Cooperative Extension/Agriculture Experiment Station (CE/AES)
  - General Fund: $45K increase actual central appropriation distribution
Sponsored Program Expenditures

2016-17 VS 2017-18

*Other includes Service Centers, Enterprise Funds, Royalty, and Research Ancillary Activity
Auxiliary Enterprises

- Annual Budgets
  - Carryover of outstanding commitments & obligations: $5.9M
    - $3.2M Dining; $1.0M Residential; $1.7M Other Units
  - $10M internal financing of board approved Athletics facilities improvements
  - State assessment for Virginia Retirement System (VRS): $462K
  - Inn at VT Patio Project & Operating: $767K
  - Cook Counseling staffing: $297K

- Financial Performance
  - Athletics: expenses running ahead due to sport equipment, operating, and basketball facility projects
  - Dorms and Dining: higher than budgeted occupancy and meal plans sales
  - Other activities are performing as planned
Capital Outlay

- Total capital program level currently authorized
  - $582 million over multiple years

- Cumulative program expenses
  - $199 million inception-to-date

- All spending and commitments are within authorized budgets
Project Expenses by Activity
First Quarter

<table>
<thead>
<tr>
<th>Activity</th>
<th>Dollars in Thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design (n=5)</td>
<td>$8,515</td>
</tr>
<tr>
<td>Construction (n=8)</td>
<td>$99,469</td>
</tr>
<tr>
<td>Close Out (n=12)</td>
<td>$26,802</td>
</tr>
<tr>
<td>Total Expenses (n=25)</td>
<td>$134,786</td>
</tr>
<tr>
<td>Expenses to Date</td>
<td>$1,299</td>
</tr>
<tr>
<td>$18,565</td>
<td></td>
</tr>
<tr>
<td>$1,437</td>
<td></td>
</tr>
<tr>
<td>$21,301</td>
<td></td>
</tr>
</tbody>
</table>
Capital Outlay

- Major Construction Spending Underway
  - Academic Buildings Renewal
  - O’Shaughnessy Renovation
  - Lane Substation Improvements
  - Athletic Facilities Improvements

- Major Construction Starts Expected through March 2018
  - Improve Kentland Facilities
  - Renovate Undergraduate Science Laboratories
  - Health Sciences and Technology
Questions?
Other Business
## Open Joint Session Agenda

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**  
**AND BUILDINGS AND GROUNDS COMMITTEE**  

**Solitude Room, The Inn at Virginia Tech**  
11:15 a.m. – 11:30 a.m.  

**November 6, 2017**

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 1. Approval of Resolution for Student Wellness Improvements</td>
<td>Mr. Shelton</td>
</tr>
<tr>
<td></td>
<td>Dr. Wilson</td>
</tr>
</tbody>
</table>

* Requires full Board approval.
Open Session

1. **Approval of Resolution for Student Wellness Improvements**: The Committees will review for approval a resolution for Student Wellness Improvements. In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university conducted a program and facility study and identified the renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs.

The proposed improvements to War Memorial Hall will provide updated space for Cook Counseling Center and Hokie Wellness, the department of Human Nutrition, Foods, and Exercise (HNFE), Recreation Sports, and School of Education for running programmatic activities to support and promote student wellness, instruction, and research. The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to accommodate student health services.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. This request is for a $63 million authorization to complete the Student Wellness Improvements project.

* Requires full Board approval.
In March 2016, the Board of Visitors approved a $2.757 million planning authorization to develop a facility solution to meet expectations for student counseling services, student health services, and expanded fitness programming. The university subsequently conducted a program and facility study that identified a renovation of War Memorial Hall along with minor upfits to McComas Hall as the most efficient alternative to meet student service needs. This work resulted in a placeholder project for the improvements, titled Student Wellness Improvements, on the university’s 2018-2024 Six-Year Capital Outlay Plan approved by the Board of Visitors at its April 3, 2017 meeting. The university continued work on the program, funding plan, schedule, and costs and is now ready to request authorization to proceed with the full project.

The existing War Memorial Hall is approximately 201,000 gross square feet. The proposed improvements include renovating approximately 175,000 gross square feet, demolition of approximately 26,000 gross square feet of the east side of the building, and a 38,000 gross square foot replacement on the east side of the building. The final size of the facility will be approximately 213,000 gross square feet. The improvements will provide space for the programs described below, will address deferred maintenance and code requirements, and will install air conditioning to the building.

- Cook Counseling Center and Hokie Wellness will be located on the third floor creating an optimal environment for coordination of prevention, educational intervention, and treatment services. Relocating Cook Counseling from McComas Hall will consolidate offices currently located in McComas Hall and off campus leased space in one central location in War Memorial Hall, making it easier for students to access services before, after, or between classes. Cook Counseling will include approximately 40 interview offices, three group session rooms, and a waiting room for up to 50 patients. Hokie Wellness will include offices, training and educational space, individual and group consultation rooms, and a recovery community lounge.

- Recreational Sports will be located on the first and second floors and include five basketball courts, four racquetball courts, two squash courts, an expanded weight and cardio area, multipurpose rooms, a performance laboratory, and office space for recreation sports administration.

- The department of Human Nutrition, Foods, and Exercise (HNFE) will shift to the second floor from the third floor to make space for counseling services. The space will include research clinic laboratory with three procedure rooms, two consultation rooms, food preparation area, biochemistry laboratory, metabolic work area, and open metabolic areas.
• The School of Education will remain in the historic front section of War Memorial Hall with renovated and updated offices, three large classrooms, two small classrooms, conference rooms, computer laboratory, and research space.

The proposed renovations to Schiffert Health Center in McComas Hall include minor renovations to 19,000 square feet in the area vacated by counseling services to accommodate student health services. A reconfiguration will alleviate the cramped conditions that currently exist in the Schiffert Health Center and address privacy and confidentiality protocols for students. The renovation creates additional general medicine exam rooms, additional practitioner offices, renovated x-ray room, procedure room, new airborne isolation procedure room, two phlebotomy stations, two allergy exam rooms, two women's health exam rooms, and three waiting areas.

The total project costs for the major renovations to War Memorial Hall and minor renovation to McComas Hall is $63 million. As with all self-supporting projects, the university has developed a financing plan to provide assurance regarding the financial feasibility of this project. The total project funding is $63 million and calls for the use of debt which may be serviced from Student Health and Recreational Sports auxiliaries and an internal lease for the School of Education program. Any cash designated for the project accumulated prior to the issuance of permanent debt may be used directly for project costs and to lower the estimated total debt issuance. Temporary financing will be secured to cover project costs until permanent debt is issued.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $63 million authorization to complete the Student Wellness Improvements projec
RESOLUTION OF A CAPITAL PROJECT FOR
STUDENT WELLNESS IMPROVEMENTS PROJECT

WHEREAS, the Board of Visitors approved a $2.757 million planning project at its March 2016 meeting to support planning work on a comprehensive student wellness services project; and,

WHEREAS, a major renovation of War Memorial Hall along with a minor renovation to McComas Hall has been identified as the desired solution to address the needs for student health services, counseling services, and indoor recreation; and,

WHEREAS, the project scope includes 213,000 gross square feet of improvements and expansion to War Memorial Hall and renovations of 19,000 gross square feet to Schiffert Health Center; and,

WHEREAS, the scope includes addressing deferred maintenance, code compliance, and installing air conditioning to War Memorial Hall; and,

WHEREAS, the total project budget is $63 million and the university has developed a 100 percent nongeneral fund resource plan for the project; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded major capital outlay projects.

NOW, THEREFORE BE IT RESOLVED, that the university be authorized to move forward with a $63 million authorization for the Student Wellness Improvements project and to secure temporary short-term financing through any borrowing mechanism that prior to such borrowing has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $63 million authorization, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to complete the Student Wellness Improvements project be approved.

November 6, 2017
Student Wellness

Importance of Health & Wellness to VT Mission

- Ut Prosim
- Teaching, Research, Outreach
- Student Academic Success
- Student Wellbeing
Rising enrollment could drive demand for health and counseling services up over 21 percent.

* 2017-18 and 2018-19 data based on projections from the Division of Student Affairs.
Inadequacy of Current Facilities

STUDENT WELLNESS

* 2017-18 and 2018-19 data based on projections from the Division of Student Affairs.

Crowding issues jeopardize the efficacy of, and access to, health and wellness services.
Crowding jeopardizes access to, and the efficacy of, health and wellness services
Student Wellness

Increased Centralization
War Memorial Hall (WMH): Phase 1

- Demolition of existing wing containing Raquetball Courts, School of Education Suite, Classrooms
War Memorial Hall: Phase 2

- New Construction addition
- Department of Human Nutrition, Foods, and Exercise and Performance Lab relocates into new addition
- Renovation of remaining areas in War Memorial Hall
- Counseling Center & Hokie Wellness relocate to War Memorial Hall
- Renovation of War Memorial head house
- School of Education moves into head house
McComas Hall: Phase 1

- Cook Counseling Center & Hokie Wellness relocate to War Memorial Hall
- **McComas Hall: Phase 2**

  - Schiffert Health Center expansion – Allergy Clinic, Women’s Health, Lab, Offices occupy space vacated by Cook Counseling Center
  - Renovation of Schiffert Health Center (Level 01)
  - Recreational Sports satellite offices infill previous Hokie Wellness offices
Open Session Agenda

GOVERNANCE AND ADMINISTRATION COMMITTEE

Smithfield Room, The Inn at Virginia Tech
9:00 – 11:30 a.m.

November 6, 2017

Agenda Item | Reporting Responsibility
--- | ---
1. Opening Remarks | Mr. Mehul Sanghani, Chair
2. Consent Agenda | Mr. Mehul Sanghani, Chair
   a. Approval of Minutes of the September 11, 2017, Meeting
   b. Approval of Charter for the Office of Audit, Risk, and Compliance
   c. Approval of Charter for the Compliance, Audit, and Risk Committee
3. Update on the Search for the Senior Vice President for Operations and Administration | Mr. Charlie Phleagar
4. Athletics Presentation on ACC Network and Bowman Dining Project | Mr. Whit Babcock
5. Update on Branding Rollout and Synchronization with Athletics | Ms. Tracy Vosburgh
   Mr. Whit Babcock
6. Presentation on IT and Enterprise Administrative Systems | Mr. Scott Midkiff
   Ms. Deborah Fulton
7. Presentation on HR in Higher Ed: A National Perspective and Planning for the Future | Dr. Lisa Wilkes
   Mr. Scott Nostaja
8. Future Agenda Items and Closing Remarks | Mr. Mehul Sanghani, Chair

*Requires full Board approval
OPEN SESSION

1. **Welcome.** Mehul Sanghani, Chair of the Governance and Administration committee, will welcome committee members, guests, and invited participants.

2. **Consent Agenda.** The committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. Approval of Minutes of the September 11, 2017, Meeting
   
   b. Approval of Charter for the Office of Audit, Risk, and Compliance
   
   c. Approval of Charter for the Compliance, Audit, and Risk Committee

3. **Update on the Search for the Senior Vice President for Operations and Administration.** Charlie Phleagar, Vice President of Advancement and chair of the search committee for the new Senior Vice President for Operations and Administration, will provide the committee with an update on the status of the search that was recently begun.

4. **Athletics Presentation on ACC Network and Bowman Dining Project.** Whit Babcock, Director of Athletics, will present to the committee on the topics of preparations for participation in the ACC Network/Studio and the new Bowman Nutrition/Dining facility proposed as part of the renovation scope for the fourth floor of the Jamerson Center.

5. **Update on Branding Rollout and Synchronization with Athletics.** Tracy Vosburgh, Senior Associate Vice President for University Relations, will provide an update regarding the implementation of the new brand, and Whit Babcock, Director of Athletics, will discuss synchronization of the new academic logo with the existing athletic logo.

6. **Presentation on IT and Enterprise Administrative Systems.** Scott Midkiff, Vice President for Information Technology and Chief Information Officer, will briefly describe the mission, strategic goals, and structure of the IT organization at Virginia Tech. Deborah Fulton, Associate Vice President for Enterprise Systems, will follow with a presentation on the evolution of the applications portfolio and organization of Enterprise Systems over the past 10 years and challenges for the future.
7. **Presentation on HR in Higher Ed: A National Perspective and Planning for the Future.** Lisa Wilkes, Interim Vice President for Human Resources, will introduce Scott Nostaja, Senior Vice President and National Human Capital Practice Leader of Sibson Consulting, to provide the committee with a presentation on the changing landscape of human resources across higher education as it pertains to Virginia Tech’s efforts to move the university’s HR culture to a strategic, forward-facing division that engages in comprehensive workforce planning.

8. **Closing Remarks.** Mehul Sanghani, Chair of the Governance and Administration committee, will offer closing remarks and request a motion for adjournment.
Opening Remarks
by Mr. Mehul Sanghani, Chair
1. **Purpose**

This policy outlines the policies and procedures covering the Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

It is the policy of the Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness internal control environment.

The Office of Audit, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management process, and oversees the institutional compliance program. The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit**: Provide independent, objective assurance and advisory activity designed to add value and improve university operations. It helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. **Risk Management**: Provide oversight of the enterprise risk management (ERM) program by creating and maintain the framework to effectively identify, assess, and manage risk.

3. **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

2.1 **Scope of the Office of Audit, Risk, and Compliance**

The scope of OARC work is to determine whether Virginia Tech’s risk management, internal controls, compliance activities and governance processes, as designed and represented by management, is adequate and functioning in a manner to ensure:
- Programs, plans, and strategic objectives are achieved.
- Risks are appropriately identified, managed, and considered in institutional decision making.
- Significant financial, managerial and operating information is accurate, reliable and timely.
- Compliance with policies, procedures, standards, laws, and regulations.
- Measures taken to foster continuous improvement in control processes.
- Resources are being acquired, managed, and protected in an economical, efficient, and effective manner.

2.2 Independence and Objectivity

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Audit, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Compliance, Audit, and Risk Committee of the Board of Visitors.

All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

2.3 Authority

OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

2.4 Auditing Standards

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

2.5 Systems Planning and Development

OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:

- Reasonable and adequate internal controls exist.
- Systems or procedural documentation is complete and appropriate.
- An adequate audit trail exists.
OARC’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.6 Responsibilities of the Executive Director of Audit, Risk, and Compliance

The Executive Director of Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of OARC to ensure that the work fulfills the purposes and responsibilities established in this policy statement. The Executive Director of Audit, Risk, and Compliance is specifically charged with the following responsibilities:

- Coordinating all auditing activities to provide a central source of information for management and the Compliance, Audit, and Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
- Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
- Establishing written policies and procedures for OARC and directing its technical and administrative functions.
- Developing, submitting for approval, and executing comprehensive risk-based annual audit plans to carry out departmental responsibilities.
- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
- Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
- Issuing an annual summary report of activities to the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
- Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
- Communicating directly with the Compliance, Audit, and Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
- Performing sufficient tests and examinations to determine and report to management, the Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective of recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

2.7 Audit Reports

OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Audit, Risk, and Compliance, depending upon the nature and
conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Compliance, Audit, and Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Audit, Risk, and Compliance may decide, with the approval of the Chair of the Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.8 Responsibility for Corrective Action
Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.9 Coordination with External Auditing Agencies
The Executive Director of Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.10 Special Projects
The Executive Director of Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Compliance, Audit, and Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures
Principal guidance and direction on how the OARC accomplishes its mission and responsibilities is provided to the audit staff through an office procedures manual. The manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The manual also provides a resource to external parties such as the Compliance, Audit, and Risk Committee of the Board of Visitors, senior management, external auditors, and quality assurance parties.
4. Definitions

Abuse
Excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Extravagant or excessive use as to abuse one’s position or authority. Abuse can occur in financial or nonfinancial settings.

Add Value
The internal audit function adds value to the organization (and its stakeholders) when it provides objective and relevant assurance, and contributes to the effectiveness and efficiency of governance, risk management, and control processes.

Advisory Services
Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

Assurance
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

Charter
The charter is a formal document that defines the OARC’s purpose, authority, and responsibility. The charter establishes the office’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

Code of Ethics
The Code of Ethics of The Institute of Internal Auditors are principles relevant to the profession and practice of internal auditing, and rules of conduct that describe behavior expected of internal auditors. The purpose of the Code of Ethics is to promote an ethical culture in the global profession of internal auditing.

Compliance
Adherence to policies, plans, procedures, laws, regulations, contracts, or other requirements.

Conflict of Interest
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest would prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

Control
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.

Control Environment
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

**Executive Director of Audit, Risk, and Compliance**

The individual that serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the IIA’s Definition of Internal Auditing, the Core Principles, the Code of Ethics, and the Standards.

**Engagement**

A specific internal audit assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

**Enterprise Risk Management**

A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

**Fraud**

The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

**Governance**

The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

**Independence**

The freedom from conditions that threaten the ability of the internal audit function to carry out internal audit responsibilities in an unbiased manner.

**Internal Audit Function**

The department, division, team of advisors, or other practitioner(s) that provides independent, objective assurance and advisory services designed to add value and improve an organization’s operations.

**International Professional Practices Framework**

The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories – (1) mandatory and (2) strongly recommended.

**Objectivity**

An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they believe in their work product and that no quality compromises are made. Objectivity requires that internal auditors do not subordinate their judgment on audit matters to others.
Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular audit. The scope can be specified by defining the physical location of the audit, the organizational units that will be examined, the processes and activities that will be included, and the time period that will be covered.

Significance
The relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors, such as magnitude, nature, effect, relevance, and impact. Professional judgment assists internal auditors when evaluating the significance of matters within the context of the relevant objectives.

Standards
A professional pronouncement that delineates the requirements for performing a broad range of internal audit activities, and for evaluating internal audit performance.

Waste
The intentional or unintentional, thoughtless or careless expenditure, consumption, mismanagement, use, or squandering of Commonwealth resources to the detriment or potential detriment of the Commonwealth. Waste also includes incurring unnecessary costs due to inefficient or ineffective practices, systems, or controls.

5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), and the Definition of Internal Auditing, revised in 2016 and effective 2017.

6. Approval and Revisions
- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.

- Revision 1
  Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
  Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.
• Revision 2
Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.

Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

• Annual review, November 5, 1998, by Office of the Executive Vice President. No revisions.

• Revision 3
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.

Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.

Approved March 29, 2004 by the Finance and Audit Committee of the Board of Visitors.

• Revision 4
Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.

Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.

Approved March 14, 2005 by the Finance and Audit Committee of the Board of Visitors.

• Revision 5
April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

• Revision 6
Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”

Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.

Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.

Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.

Approved November 7, 2011 by the university President, Charles W. Steger.

Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

• Revision 7
Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”

Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.
• Revision 8
  Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
1. **Purpose**

This policy outlines the policies and procedures covering the University's Internal Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2. **Policy**

It is the policy of the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit function to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness in internal control environment.
The Finance and Office of Audit Committee of the Board of Visitors, Risk and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management adoption process, and oversees the following definition of internal auditing (from the Institute of Internal Auditors' International Professional Practices Framework) as the purpose of the internal audit function: Internal auditing is a systematic, disciplined approach to provide assurance and information about the effectiveness of an organization’s risk management, control, and governance processes.

The OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. Auditor: Provide independent, objective assurance and advisory activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. Risk Management: Provide oversight of the enterprise risk management (ERM) program by creating and maintaining the framework to effectively identify, assess, and manage risk.

3. Compliance: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.

2.1 Scope of Internal the Office of Audit Activities, Risk, and Compliance

The internal audit function will provide assurance engagements encompassing reviews of all university operations and activities to appraise:

The accuracy, reliability, and timeliness of significant The scope of OARC work is to determine whether Virginia Tech’s risk management, internal controls, compliance activities and governance processes, as designed and represented by management, is adequate and functioning in a manner to ensure:

- Programs, plans, and strategic objectives are achieved.
- Risks are appropriately identified, managed, and considered in institutional decision making.
- Significant financial, managerial, and operating information and the adequacy of the internal controls employed over the compilation and reporting of such information is accurate, reliable and timely.
- Compliance with policies, procedures, standards, laws, and regulations.
- Whether risks are appropriately identified and managed.
- Measures taken to safeguard assets, including tests of existence and ownership.
- The adequacy, propriety, and cost-effectiveness of accounting, financial, and other controls throughout the university, as well as compliance therewith.
- Measures taken to foster continuous improvement in control processes.
- Whether university resources are being acquired, managed, and protected in an economical, efficient, and effective manner.
- The achievement of programs, plans, and objectives.

2.2 Organizational Structure

The Finance and Audit Committee of the Board of Visitors has the responsibility to oversee and evaluate the internal audit function of the university. Accordingly, the Director of Internal Audit reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Director of Internal Audit reports administratively to the President.

2.32.2 Independence and Objectivity

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Internal Audit has, Risk, and Compliance reports functionally to the committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports
administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the Finance, Compliance, Audit, and AuditRisk Committee of the Board of Visitors. The internal audit function shall be functionally independent of all university operations.

The Director of Internal Audit or members of the department must have an impartial, unbiased attitude and avoid any conflict of interest. Members of the internal audit function shall not be assigned to operating duties except for temporary assignments as requested by the President and the university’s Chief Financial Officer and approved by the Finance and Audit Committee of the Board of Visitors. In addition, members of the internal audit function will not develop and install procedures, prepare records, make management decisions, or engage in any other activity which could be reasonably construed to compromise their independence. The Director of Internal Audit or members of the department shall not be assigned any additional supervisory or oversight responsibilities which could be reasonably construed to compromise their independence. All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments that are essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

### 2.4.2.3 Authority

The internal audit function OARC has unrestricted access to all university departments, records, reports, activities, property, and personnel that they deem necessary to discharge their audit responsibilities. The internal audit function OARC will exercise discretion in the review of records to assure the necessary confidentiality of matters that come to its attention.

OARC will allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports. OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

### 2.5.2.4 Auditing Standards

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and Code of Ethics. Generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants and government auditing standards issued by the United States Government Accountability Office will be referenced as appropriate.

Members of the internal audit function have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry on proper and meaningful internal auditing within the university. In addition, the internal audit function’s activities and conduct shall be consistent with the policies of the university.

### 2.6.2.5 Systems Planning and Development

The internal audit function OARC will be consulted by management during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:
Reasonable and adequate internal controls exist.
Systems or procedural documentation is complete and appropriate.
An adequate audit trail exists.

The internal audit function’s participation will be designed to: a) help assure that information assets are safeguarded and appropriate procedures are complied with, and b) aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.7.2.6 Responsibilities of the Executive Director of Internal Audit, Risk, and Compliance

The Executive Director of Internal Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of the internal audit function OARC to ensure that the audit work fulfills the purposes and responsibilities established in this policy statement.

The Executive Director of Internal Audit, Risk, and Compliance is specifically charged with the following responsibilities:

- Coordinating all auditing activities to provide a central source of information for management and the Finance Compliance, Audit, and Risk Committee of the Board of Visitors regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
- Going beyond accounting and financial records when necessary during audit activities to obtain a thorough understanding of the activities under audit.
- Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the Compliance, Audit, and Risk Committee of the Board of Visitors.
- Coordinating the university’s Institutional Compliance Program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.
- Establishing written policies and procedures for the internal audit function OARC and directing its technical and administrative functions.
- Developing, submitting for approval, and executing comprehensive risk-based annual and long-range audit plans to carry out departmental responsibilities.
- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.
- Documenting appropriately the results of all audits, reviews, and evaluations performed.
- Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
- Issuing an annual summary report of audit activities to the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors.
- Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions and reporting this information at least quarterly to the responsible Vice Presidents and the university’s Chief Financial Officer, or their designees.
- Establishing and maintaining a quality assurance review program Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university. Results of such reviews will be presented to senior management and the Board of Visitors.
- Communicating directly with the Finance Compliance, Audit, and Risk Committee of the Board of Visitors any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
• Performing sufficient tests and examinations to determine and report to management, the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, and the appropriate authorities the extent of any fraud, waste, and abuse detected by audit or otherwise and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective or recovery and/or prosecution is the responsibility of the appropriate police departments and Commonwealth’s Attorney based on jurisdiction.

2.8.2.7 Audit Reports

The internal audit function OARC will issue audit reports and/or memorandums in all audit activities performed. The format and style of the report will be determined by the Executive Director of Internal Audit, Risk, and Compliance, depending upon the nature and conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors, the President, appropriate senior management, and other appropriate personnel as deemed necessary by the Executive Director of Internal Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Internal Audit, Risk, and Compliance may decide, with the approval of the Chair of the Finance and Compliance, Audit, and Risk Committee of the Board of Visitors, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.9.2.8 Responsibility for Corrective Action

Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported by the internal audit function. The responses should be submitted to the Executive Director of Internal Audit, Risk, and Compliance for inclusion in the issued audit report. The committee will receive quarterly status updates of all recommendations in the process of being implemented.

2.10.2.9 Coordination with External Auditing Agencies

The Executive Director of Internal Audit, Risk, and Compliance will coordinate the department’s audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. Duplication of work will be avoided as much as possible.

2.11.2.10 Special Projects

The Executive Director of Internal Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the Finance, Compliance, Audit, and Risk Committee of the Board of Visitors to assist management in meeting its objectives, promoting economy and efficiency in the administration of, or preventing and detecting fraud, waste, and abuse in its programs and operations, examples of which may include facilitation, training, and advisory services.

3. Procedures

Principal guidance and direction on how the internal audit function OARC accomplishes its mission and responsibilities is provided to the audit staff through the Virginia Tech Internal Audit Manual (Manual) on office procedures manual. The Manual is designed to promote adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors. The Manual also provides a resource to external...
Charter for the University’s Internal Office of Audit Function, Risk, and Compliance

4. Definitions

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The internal audit charter is a formal document that defines the internal audit function’s purpose, authority, and responsibility. The internal audit charter establishes the internal audit function’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

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**Control Processes**
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A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

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The intentional deception perpetrated by an individual or individuals, or an organization or organizations, either internal or external to the university, which could result in a tangible or intangible benefit to themselves, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives and is intended to deceive.

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A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

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5. References


The Institute of Internal Auditors’ International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), The Institute and the Definition of Internal Auditors, issued in 2008 Auditing, revised in 2012.


6. Approval and Revisions
- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.
• **Revision 1**
  Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
  Approved March 29, 1990, by the Director of Internal Audit, David C. Goodyear.

• **Revision 2**
  Changes were made to eliminate minor discrepancies between the audit manual and the policy statement as presented to the Board of Visitors.
  Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.

• **Revision 3**
  Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors. Policy serves as a charter for the Internal Audit Department.
  Approved March 29, 2004 by the Executive Vice President and Chief Operating Officer, Minnis E. Ridenour.
  Approved March 29, 2004 by the Finance and Audit Committee of the Board of Visitors.

• **Revision 4**
  Policy updated to reflect review by the Finance and Audit Committee of the Board of Visitors, in conjunction with the Internal Audit Department’s quality assurance review.
  Approved March 14, 2005 by the Executive Vice President and Chief Operating Officer, James A. Hyatt.
  Approved March 14, 2005 by the Finance and Audit Committee of the Board of Visitors.

• **Revision 5**
  April 1, 2008: Updates to position titles and/or responsibilities due to university reorganization.

• **Revision 6**
  Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”
  Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.
  Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.
  Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.
  Approved November 7, 2011 by the university President, Charles W. Steger.
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• **Revision 7**
Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.

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**Revision 8**
Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
I. PURPOSE

The primary purpose of the Compliance, Audit, and Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university’s compliance with all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory agencies, funding agencies, and the State Council of Higher Education for Virginia,
- The maintenance of effective systems of internal control, including the integrity of the university’s financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Office of Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s internal control systems. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

This document and the related meeting planner are intended to identify and document the Committee’s oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. MEETINGS

By statute the Board of Visitors, including the CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently
as circumstances warrant. The Committee Chair should discuss the agenda with the Executive Director of Audit, Risk, and Compliance prior to each Committee meeting to finalize the meeting agenda and review the items to be discussed.

III. RESPONSIBILITIES

In performing its audit oversight responsibilities, the CAR Committee shall:

A. General
   1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
   2. Maintain minutes of meetings.
   3. Authorize audits within the Committee’s scope of responsibilities.
   4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
   5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Risk Management and Internal Control
   1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.
   2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.
   3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.
   4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.
   5. Advise management that they are expected to provide a timely analysis of significant reporting issues and practices.

C. External Auditors
   1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.
2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.
3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.
4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.
5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (non-financial statement audits).

D. Internal Auditors
1. Approve the charter for the Office of Audit, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.
2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.
4. Review completed audit reports and progress reports on executing the approved annual audit plan.
5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.
6. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.
7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance.
8. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation.

E. Compliance, Ethics, and Business Conduct
1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.
2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.
3. Review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.

The “CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

Virginia Polytechnic Institute and State University
Compliance, Audit, and Risk Committee of the Board of Visitors CAR
Agenda Meeting Planner

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<tr>
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A. General

1. Review and update CAR Committee charter  X  X  X  X  X  X
2. Approve and maintain minutes of previous meeting  X  X  X  X  X  X
3. Authorize audits within the Committee’s scope of responsibilities  X
4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate  X  X  X  X  X  X
5. Meet in closed session with Executive Director of Audit, Risk, and Compliance, and with external auditors, as needed  X  X  X  X  X  X

B. Risk Management and Internal Control

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies  X  X  X  X  X  X
2. Consider the effectiveness of the university’s internal control systems  X
3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses  X  X  X  X  X  X
4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system  X  X  X  X  X  X
5. Advise management that they are expected to provide a timely analysis of significant current reporting issues and practices  X  X

C. External Auditors
1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year

2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks

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4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)

5. Review results of other significant reviews from regulatory agencies or other external entities

### D. Internal Auditors

1. Review and approve the charter for the Office of Audit, Risk, and Compliance, if changes are needed

2. Review the draft annual audit plan

3. Approve the annual audit plan

4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships

5. Review the results of the QAIP, including internal and external assessments

6. Review completed audit reports and progress reports on executing the approved annual audit plan

7. Inquire of the Executive Director of Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information

8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Audit, Risk, and Compliance

9. Evaluate the Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation

### E. Compliance, Ethics, and Business Conduct

1. Convey commitment to ethical conduct through periodic receipt of management reports on how the university’s mission, values, and codes of conduct are properly communicated to all employees

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<th></th>
<th>2. Review the programs and policies of the university designed to assure and monitor compliance</th>
<th>X</th>
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<td>3. Monitor the university’s conflict of interest policies and related procedures</td>
<td>X</td>
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I. PURPOSE

The primary purpose of the Finance, Compliance, Audit, and Audit Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The integrity of the university's financial accounting and reporting practices,
- The university's enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy,
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board,
- The university's compliance with legal and all federal, state, and local laws and executive orders; and policies promulgated by academic and athletic accrediting bodies, regulatory requirements, agencies, funding agencies, and the State Council of Higher Education for Virginia,
- Fiscal planning and the execution of fiscal plans,
- The maintenance of an effective system of internal controls, including the integrity of the university's financial accounting and reporting practices, and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for maintaining appropriate financial accounting and reporting policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations. The Department of Internal Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s system of internal controls. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

The Committee is charged in the Bylaws of the Board of Visitors with separating its responsibilities for Finance and Audit, respectively, and with maintenance of a separate audit agenda and finance agenda for each meeting. This document and the related meeting planner are intended to identify and document the Committee’s audit-specific oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities.
that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. COMPOSITION AND INDEPENDENCE

The Finance and Audit Committee will be comprised of three or more Visitors. Each committee member will be financially literate and shall fully comply with the State and Local Government Conflict of Interests Act, Section 2.2-3100 of the Code of Virginia as amended.

III. MEETINGS

By statute the Board of Visitors, including the Finance and Audit Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently as circumstances warrant. The Committee Chair should discuss the Audit agenda with the Executive Director of Internal Audit, Risk, and the university’s Chief Financial Officer Compliance prior to each Committee meeting to finalize the meeting agenda and review the issues to be discussed.

IV. RESPONSIBILITIES

In performing its audit oversight responsibilities, the Finance and Audit Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Maintain minutes of meetings.
3. Authorize audits within the Committee’s scope of responsibilities.
4. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
5. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the external auditors and/or the Executive Director of Internal Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately. The Executive Director of Internal Audit, Risk, and Compliance shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual meetings.

B. Internal Controls, Risk Assessment, Management and Financial Reporting

2017
1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.

2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.

2. Review the university’s processes for assessing significant business risk exposures and the steps management has taken to monitor and control such exposures, including the university’s risk assessment and risk management policies.

3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.

4. Review the annual financial statements with management and the external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

5. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.

6. Advise management that they are expected to provide a timely analysis of significant financial-reporting issues and practices.

C. **External Auditors**

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.

2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (nonfinancial statement audits).

D. **Internal Auditors**
1. Approve the Internal charter for the Office of Audit, Charter, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.

2. Review and approve the annual audit plan and any significant changes to the plan.
3. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.

4. Review completed audit reports and progress reports on executing the approved annual audit plan.

5. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.

6. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.

7. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance.

8. Evaluate the Executive Director of Internal Audit’s Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation.

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E. Compliance, Ethics, and Business Conduct

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.

2. Require management to periodically report on procedures that provide assurance that the university's mission, values, and codes of conduct are properly communicated to all employees.

3. Periodically review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.

The attached “Audit CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

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<tr>
<td>1. Review and update F&amp;A CAR Committee Audit Charter</td>
<td>X</td>
<td>Aug Nov Mar Jun</td>
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<tr>
<td>2. Approve and maintain minutes of previous meeting</td>
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<td>3. Authorize audits within the Committee’s scope of responsibilities</td>
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<td>4. Report Committee actions to the Board of Visitors with recommendations deemed appropriate</td>
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<td>5. Meet in closed session with Executive Director of Internal Audit, Risk, and Compliance, and with external auditors, as needed</td>
<td>X X X X X</td>
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B. Risk Management and Internal Controls/Risk Assessment/Fin Reporting Control

1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies | X X X X X |

2. Consider the effectiveness of the university’s internal control systems | X |
2. Review the university’s processes for assessing significant business risk exposures and the steps taken to monitor and control such exposures

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3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses

4. Review the annual financial statements with management and external auditors to determine whether the external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles

5. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system

6. Advise management that they are expected to provide a timely analysis of significant current financial reporting issues and practices

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C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year

2. Discuss with the external auditors their processes for identifying and responding to key audit and internal control risks

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks

4. Meet with the external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)

5. Review results of other significant reviews from regulatory agencies or other external entities

D. Internal Auditors

2017
1. Review and approve Internal Audit the charter for the Office of Audit, Risk, and Compliance, if changes are needed  | X | X |
2. Review the draft annual audit plan | X | X |
3. Approve the annual audit plan | X | X |
4. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships | X | X |
5. Review the results of the QAIP, including internal and external assessments | X |
6. Review completed audit reports and progress reports on executing the approved annual audit plan | X | X | X | X | X |
7. Inquire of the Executive Director of Internal Audit, Risk, and Compliance regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information | X | X | X | X | X |
8. Review and concur in the appointment, replacement, reassignment, or dismissal of the Executive Director of Internal Audit, Risk, and Compliance | X |
9. Evaluate the Executive Director of Internal Audit’s Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation | X | X |
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### E. Compliance, Ethics, and Business Conduct

1. **Require** Convey commitment to ethical conduct through periodic receipt of management to periodically report reports on procedures that provide assurance that how the university’s mission, values, and codes of conduct are properly communicated to all employees

   X

2. Review the programs and policies of the university designed to assure and monitor compliance

   X X X X X X

3. Monitor the university’s conflict of interest policies and related procedures

   X X X X X
Update on Search for the Senior VP of Operations and Administration
by Mr. Charlie Phlegar
Intercollegiate Athletics report to the Governance & Administration Committee of the Board of Visitors

November 6, 2017
“THE EARTH LITERALLY SHAKES HERE.”
-CHRIS FOWLER
**COLLEGE GAMEDAY**

“WELCOME TO BLACKSBURG, VIRGINIA, LIVE FROM ALUMNI MALL.” – RECE DAVIS

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<thead>
<tr>
<th>FOLLOWERS</th>
<th>TWEETS</th>
<th>IMPRESSIONS</th>
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<tr>
<td>2.65M</td>
<td>31</td>
<td>83M</td>
<td>50,000</td>
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You ready, Blacksburg?

For the first time in 10 years ... we're in your city. See you tomorrow morning.
Thank you, Blacksburg!

Let's do it again soon.

Any school that wants to host @CollegeGameDay, take notes from Va Tech and its crowd and setting.
EXIT LIGHT. ENTER NIGHT.
ABC PRIMETIME GAME OF THE WEEK

4.7 MILLION VIEWERS
THE MOST WATCHED COLLEGE FOOTBALL GAME OF THE 2017 SEASON
NINE HOURS OF PRIMETIME COVERAGE OF VIRGINIA TECH AND THE BLACKSBURG COMMUNITY
FIFTH LOUDEST MOMENT IN COLLEGE FOOTBALL HISTORY – 126.2 DBA
SPORTS ILLUSTRATED – “VIRGINIA TECH CONTINUES TO HAVE THE MOST LIT ENTRANCE IN ALL OF COLLEGE FOOTBALL”
NOW is the TIME.

THIS IS a HOME.

THIS is the PLACE.
BOWMAN ROOM DINING SERVICES

WHAT THE FUTURE COULD HOLD FOR VIRGINIA TECH ATHLETES
BENEFITS TO VIRGINIA TECH AND OUR ATHLETES

Student-athletes have a centrally located nutrition area close to competition venues, locker rooms, training areas, and academic support. Specialized nutritional needs can be better coordinated due to central location.

Enhanced amenity-hosting packages for fans supporting the Hokies.

Potential additional dining facility for all students thereby assisting with the support of additional growth at Virginia Tech.

Upscale dining/reception opportunities.

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ADVANTAGES OF SITE:

Not a build from scratch situation

Part of an already existing athletics center

Setting offers the potential of dramatic views and architectural creativeness
program of requirements

The programmatic requirements for the Nutrition Center were established through a series of conversations between the VT Athletics Committee and the facility design team. The square footage numbers listed below are adequate to support 1250 users occupying the space concurrently. A more detailed description of the kitchen spaces can be found in the Food Service section on page 14.

<table>
<thead>
<tr>
<th>Spaces</th>
<th>Persons</th>
<th>Description</th>
<th>Net Square Feet (NSF)</th>
<th>Total NSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>290</td>
<td></td>
<td>Main Dining Space</td>
<td>180/Person</td>
<td>4,770</td>
</tr>
<tr>
<td>290</td>
<td></td>
<td>Kitchen/Servery Total</td>
<td>19/Person</td>
<td>5,750</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Kitchen (40% of Total) = 1,000 NSF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Servery (50%) of Total = 2,250 NSF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Office (20’ x 12’)</td>
<td>240</td>
<td>4,160</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Cash Office (8’ x 10’)</td>
<td>80</td>
<td>1,760</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Staff Changing Room (5’ x 8’)</td>
<td>40</td>
<td>4,000</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Janitor Closet</td>
<td>40</td>
<td>400</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Storage (2-10’ x 6’)</td>
<td>600</td>
<td>300</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Restrooms (2-6’ x 2’ Lined)</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Mechanical and Support Space</td>
<td>750</td>
<td>750</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Vertical Elevator and Office</td>
<td>1,216</td>
<td>1,216</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Balconies</td>
<td>1,175**</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Outdoor Patio Area</td>
<td>1,000**</td>
<td></td>
</tr>
</tbody>
</table>

NSF = Net Square Feet
GSF = Gross Square Feet
*Covered Unconditioned Space
Athletic Nutrition Center, Interior Conceptual Rendering
Athletic Nutrition Center, Conceptual Rendering  (Structure Only)
EXAMPLE OF NOTRE DAME’S AREAS
QUESTIONS TO BE ANSWERED:

- What additional hosting and potential revenue opportunities are anticipated?
- How much $ do we need to get started?
- How much staffing would be necessary?
- How many meals per day? All? Two per day? Which will we offer?
- For Student-Athletes, and general students??
- Would Dining Services operate it? Opportunity and justification for some campus funding?
- Impact on Jamerson & Cassell during year of Construction?
- Coordination when overlapping events want/need to utilize the space?
CONTROL ROOMS
EQUIPMENT/RACK ROOMS
CURRENT USE OF SPACE
ACC TELEVISION AGREEMENTS

CURRENT

ESPN Networks
Base Agreement

RAYCOM Sports
ACC Syndicated Network

FOX Sports

Secondary Agreement

2019 – 2036

ESPN Networks
Base Agreement

ACC | ESPN Partnership

ACC | ESPN Partnership
ACC NETWORKS

Authenticated Digital Streaming Platform
September 2016
2016: 600 Games
2017: 725 Games
2018: 850 Games
2019-2036: 975 Games

Linear Distribution Channel
Launches August 2019

Football: 40 Games
M-Basketball: 100 Games (min.)
W-Basketball: 50 Games
Olympic Sports: 260 Games

2019: OVER 1,500 LIVE GAMES
ACC NETWORK LAUNCH PILLARS

2017
- School
- Production
- Facilities
- Finalize
- Branding
- Network
- Facility
- Plans
- Content
- Planning
- Affiliate
- Distribution

2018
- Production Facility
- Finalizations and Training
- Hire Talent
- Hire Staff
- Content Plan
- Finalized
- Affiliate
- Distribution

2019
- All Schools Linear-Production Ready
- Marketing Efforts in Full Swing
- School Activations
- Strategic Scheduling
- Affiliate Distribution

2020
- Strategic Scheduling
- School Activations
- Affiliate Distribution

LAUNCH! - AUGUST
Takeaways from the surprise Altice-ESPN carriage agreement

■ Who won?
ESPN is the clear winner, at least based on initial reports. It averted a standoff and added SEC Network and ACC Network on a cable system that covers the New York area market. ESPN

■ What was the biggest surprise?
I am blown away by the fact that ESPN was able to get carriage for both ACC Network and SEC Network on cable systems that span Connecticut, Pennsylvania, New Jersey and New York — areas that never will be confused for Tobacco Road or Tuscaloosa. ACC brass, in particular, have to be overjoyed, as this one deal makes its planned 2019 launch as close to a sure thing as you can get.
QUESTIONS TO BE ANSWERED:

- How can this benefit all of Virginia Tech? Our students?
- How are we going to staff and budget for the ACC network and all that it entails?
- How are we going to pay for the equipment and studio construction and built out? Opportunity for campus funding?
- How can we help with increasing the Distribution of the Channel?
March – Residence Hall – Dual Committee Meeting, Buildings & Grounds etc. (critical to our success & momentum)

June – Demographic Student-Athlete Data - Diversity/Inclusion (what we bring broader than Athletics)

August – Competitive Success – Peer ACC Analysis and Comparatives

Future Meetings – Meet Some Of Our Student-Athletes

Other Requests? (today or via Kim O’Rourke)
Closing Remarks

Q & A
Snapshot of launch

- 317 vt.edu pages seamlessly updated
- People reached: 85,045
- Video views: 41,895
- Daily Email sent to 40K (usual is 15K)
  - 45% open rate (30% increase)

1,240 likes 83 loves 292 angry
Where you can find our brand

• Logo is being implemented across the university.

• Content is starting to appear in the new “voice and look:” VT Magazine, annual reports, web content, emails, and more.

• Licensees are sending items now for winter/spring release.
Four-week snapshot

- Brand video: 99% positive reactions
- New product selling out
- Brand expression being adopted across the university
- Outreach to groups and individuals
Coordination on brand with athletics

The athletics partnership inside of brand development

- Platform feedback (engagement in steering committee and beyond)
- Logo evolution guidance and support
- PSA (brand unification on “grit and determination”)
- Launch support (events, ads, social media support)
Addressing brand confusion

The launch situation

- What is the academic logo? (Many didn’t understand that it wasn’t the athletics logo)
- Rampant logo misuse pre-dating brand initiative (“brand fracture”)

Focus for the launch

- Communicate (FAQs/promotion events) showing what is changing and what is staying the same
- Showcase improved brand alignment with strong visual messaging and PSA (lunch pail commercial)
Socialization post-launch

• Addressing social media confusion with updated FAQs and social posts

• Licensing-team effort to update artwork and share the new logo on product that is coordinated with athletic marketing team

• T-shirt giveaways (build excitement)
A student created a clarifying graphic that has helped the community with the brand confusion.

Not a lot of concern raised in the Athletic community.
Why not have one logo?
Will the academic side want to be associated with the athletics logo?
Logo Unification: Success Stories
IT and Enterprise Administrative Systems

Scott F. Midkiff
Vice President for Information Technology and Chief Information Officer
Professor of Electrical and Computer Engineering

Deborah Fulton
Associate Vice President for Enterprise Systems

Division of Information Technology

November 2017 Virginia Tech Board of Visitors Governance and Administration Committee
The mission of Virginia Tech’s Information Technology organization (IT) is to serve the university community and the citizens of the Commonwealth of Virginia by applying and integrating information resources to:

- Enhance and support instruction, teaching and learning;
- Participate in, support and enhance research;
- Foster outreach, develop partnerships with communities and promote the capabilities of advanced networking and communications;
- Provide, secure, and maintain systems allowing the university to accomplish its missions.

https://it.vt.edu/
IT Strategic Plan, 2012-2018

Supporting the mission of the university

Pillar 1: Enabling networked learning in the networked university
Pillar 2: Providing competitive advantage through sustainable advanced cyberinfrastructure and collaboration
Pillar 3: Leveraging information technology to distinguish the Virginia Tech experience
Pillar 4: Advancing information technology for enterprise effectiveness

Positioning IT for the future

Pillar 5: Ensuring the security and resilience of information technology resources
Pillar 6: Improving communication with customers and partners
Pillar 7: Strengthening the information technology organization

The 2012-2018 IT Strategic Plan is available at:
Division of IT Organization (1/2)

- **Administration & Planning (A&P):** Provides communications, facilities, financial management, IT purchasing, personnel services, and project management for the Division of IT and the university (under the Deputy CIO and Chief of Staff)
- **Advanced Research Computing (ARC):** Provides services and support for high-performance computing, large-scale storage, and advanced visualization for the university’s research community
- **Collaborative Computing Solutions (CCS):** Supports customer-focused services and infrastructure for collaboration tools, Microsoft technologies, and use of public cloud
- **Enterprise Systems (ES):** Provides enterprise-level services to the university including Ellucian Banner and application information systems, information warehousing and business intelligence, document management systems, database administration, application administration and integration, and web content administration and hosting
- **IT Experience & Engagement (ITE2):** Serves as the “front door” for user support, coordinates user support activities across the Division of IT and beyond, and collaborates across the Division of IT to assess and improve user experience
- **IT Security Office (ITSO):** Provides tools and services, awareness, and guidance to help university units, faculty, staff, and students achieve a safe and secure IT environment for teaching, learning, research, outreach, and the conduct of university business (The associated IT Security Laboratory conducts and supports research and education in cybersecurity and provides students with experiential learning opportunities.)
Division of IT Organization (2/2)

- **Network Infrastructure & Services (NI&S):** Provides network infrastructure for the university including wireless, Ethernet, high-data rate research connectivity, campus backbone, and wide-area networking; operates the university data center including enterprise, high-performance computing, and storage systems; collaboratively provides safety and security services; and leads special initiatives including a cellular distributed antenna system.

- **Secure Identity Services (SIS):** Supports the university’s online identity management and authentication processes and services to enable secure access to information resources and systems.

- **Technology-enhanced Learning & Online Strategies (TLOS):** Works with programs and faculty to design effective learning experiences; provides training to enhance faculty digital fluency; explores innovation in teaching and learning using technology; and supports innovative physical and virtual learning environments for traditional, distance, and hybrid courses.

- **Virginia Cyber Range:** Collaborates with Virginia universities, community colleges, and K-12 schools to make the Commonwealth of Virginia a national resource for cybersecurity education by operating a virtual environment for experiential learning, maintaining a repository of teaching resources, and building a community of practice in cybersecurity education.

- **Office of the Vice President for Information Technology:** Leads the Division of IT and collaborates across the university and beyond to grow and transform the institution through technology; and provides specific support for the university’s technology architecture, technology futures, IT policy, and engagement.
The Division of IT has 362 full-time employees (filled positions) including 172 A/P faculty and 190 university and state classified staff (as of 9/22/2017).
Division of IT: Types of Employees

• The Division of IT is employing an increasing percentage of A/P faculty (currently 48%), reflecting an increase in the skills and expertise needed to develop, deploy, operate, and support today’s complex IT systems and infrastructure.

• Enterprise Systems employs an even higher percentage of A/P faculty (79%).

Data is for full-time employees (filled positions) including as of 9/22/2017.
Hybrid Centralized and Distributed IT

- Information technology functions are performed by:
  - Division of IT employees (centralized)
  - Employees in academic and administrative units (distributed)

- Division of IT provides and supports:
  - Common and widely used services and infrastructure
  - Critical enterprise applications and systems

- Distributed IT personnel provide and support:
  - Client computer support
  - Specialized application support

The number of information technology workers outside of the Division of IT is estimated based on “role/soc code” for staff positions and job and functional titles for faculty positions.
Hybrid Centralized/Distributed IT

Value of Centralized Support

• Efficiencies of scale
• Commonality in services and experience
• Standardization and controls

Value of Distributed Support

• Locality of support and service
• Specialization to meet unique needs
• Potential for innovation

The Division of IT Supports Distributed IT Functions

• Coordination across distributed units
• Provision of common infrastructure for distributed services
• Provision of optional shared services
• Reviews and consulting
• Acquisition and license management
Mission of IT Enterprise Systems

The mission of Enterprise Systems is to support the university by developing, coordinating, and managing application software systems and enterprise data to provide critical information services for university constituents.

Activities performed to advance the mission:

- Implement applications from an enterprise-wide view to address availability, scalability, security, integration, and software standards
- Manage a portfolio of enterprise priorities and projects that insures alignment with strategic needs
- Continually enhance and improve information systems to insure long-term viability of enterprise software investments
- Collaborate with university faculty, staff, and students to facilitate process transformation
- Insure that information is accessible while safeguarding against loss, abuse, and corruption
- Provide data technologies and services to enable our data-driven university
• **Application Architecture and Planning:** Provides project management services and coordinates unit wide activities. Senior Director acts as deputy leader of Enterprise Systems.

• **Academic Applications:** Provides development, business analysis, and integration services and support for academic administration, financial aid, event management, and student life applications.

• **Business Applications and Integration Services:** Provides development, business analysis, document management, web services, mobile apps, and integration services for university business processes across application domains.

• **Business Intelligence Services:** Provides business intelligence tools and services including an enterprise data warehouse, Microstrategy reporting and analytics tools, and data modeling services.

• **Database and Application Administration:** Provides database administration for various database technologies, application administration for enterprise vendor and VT-developed applications, web hosting and administration, cloud administration services, and deployment technology leadership.
• **Enterprise Geospatial Information Systems**: Provides design, analysis, development, configuration management, and operation for geospatial information systems. Acts as a leader and consultant in innovative applications and effective enterprise practices for geospatial information.

• **Finance Applications**: Provides development, business analysis, and integration services and support for finance, accounts receivable, accounts payable, research administration, travel, and procurement applications.

• **Human Resources Applications**: Provides development, business analysis, and integration services and support for human resources, leave, equity and access, and payroll applications.

• **Student Applications**: Provides development, business analysis, and integration services and support for academic administration, financial aid, and student life applications.

• **Technology Strategy**: Analyzes, designs, and advocates solutions to promote enterprise-quality, innovative technology architecture for ES applications. The Director provides leadership and expertise across ES for technology standards and best practices.
Enterprise Systems (ES) Application Portfolio:
Where we were 10 years ago

- Ellucian Banner was (and continues to be) the VT enterprise resource planning (ERP) solution and the market leader for Higher Education ERP systems.
- Ellucian Banner did not provide enhanced, specialized functionality often needed by large, public institutions.
- The Higher Education administrative software market had few specialized applications beyond ERPs - which meant ES developing solutions for VT or the campus using manual processes.
- Cloud services had not begun to be adopted for higher education administrative apps. All enterprise applications were on premise.
- VT ES resources were assigned to support primary central administrative offices that managed the Banner modules. The stakeholders for ES services were the leaders of these central administrative offices. ES did not generally provide services to other campus units unless directed by one of these central administrative offices.
Enterprise Systems (ES) Application Portfolio:
Today

- Ellucian Banner redesigned for integration to a variety of additional vendor apps. Intended to live in a broader application ecosystem.
- The Higher Education administrative software market has many specialized applications for a myriad of campus services.
- Ellucian Banner continues to be the market leader for Higher Education ERP systems with over 1,200 implementations worldwide.
- Cloud services rapidly increasing as the preferred deployment architecture. ES supports numerous vendor cloud-based apps as well as ES developed apps.
- ES services are much more diverse including supporting legacy VT-developed applications, business analysis, application implementation, and integration of numerous vendor applications.
- ES Steering Committee created to assist in coordination of application portfolio from a university-wide perspective. Aligning ES resources for a broader portfolio is an evolving discussion. Today everyone could be an ES stakeholder.
Next-gen Enterprise IT – A Higher Education Industry Perspective

**What does next-gen enterprise IT mean to you?**

Administrative systems no longer simply provide transactional services limited in scope and ability. New technologies are enabling colleges and universities to greatly expand their offerings while at the same time providing incredibly important information in the form of analytics. **Today’s modern systems make it possible to integrate a myriad of “micro best-of-breed” solutions that cover practically every possible function of a modern institution in very tailored ways.** Everything—from personality matching of roommates to specific applications to help enable student success—is now possible. And because these solutions are almost always located in the cloud, they can be deployed without overly burdening IT staff. Further, through data-integration efforts, the resulting analytics generated by these applications can then be funneled back into predictive analysis for student success. **It is a different world, one that requires a rethinking of what the traditional college/university administrative support unit should do and be. However, the rewards can be amazing!**

*Excerpt from Educause interview with various IT leaders in Higher Education: William E. Morse, Jr. Vice President and CIO, Pomona College*

Enterprise Systems Projects Completed Summer 2017 (partial list)

- **Advancement information management system** – The Advancement information management system implementation of Blackbaud CRM is a state-of-the-art constituent management system designed around advancement industry best practices that enables strategic, data-driven fundraising, alumni relations and engagement efforts.
  - July 2017 implementation, Vendor application, On Premise deployment, ES services included business analysis, project management, and integration.

- **OneCampus services storefront** – OneCampus is a university-wide gateway and appstore interface for VT services. OneCampus uses a search-based interface to catalogue services for VT and provide a storefront for the myriad of VT web apps.
  - August 2017 implementation, Vendor application, Cloud deployment, ES services included business analysis, application configuration, and content management.

- **AcademicWorks scholarship administration system** – AcademicWorks is a centralized system for the administration of scholarship application and awarding. The solution enhances the branding and visibility of all Virginia Tech scholarships for students and their families.
  - August 2017 implementation, Vendor application, Cloud deployment, ES services included business analysis and application integration.

- **Graduate contract management phase 1** – Graduate contract management is designed to automate and integrate numerous disparate processes required to offer and administer graduate contracts across various university systems and offices.
  - July 2017 implementation, ES developed, On premise deployment, ES services included business analysis, application development, and deployment.

- **Sunapsis international student system** – The Sunapsis system manages international student regulatory compliance and integration with the federal mandated reporting for the Federal SEVIS system.
  - August 2017 implementation, Vendor application, On premise deployment, ES services included configuration, integration, testing, and deployment.
• **Banner 9 ERP upgrade phase 1 administrative pages** - The Banner 9 upgrade phase 1 includes transformation of VT modifications from Oracle forms technology to transformed admin pages. The project plan includes development of local pages, implementation of baseline Banner 9 pages, training, testing and other activities for 2018 deployment.
  - March 2018 planned deployment, Combination vendor and ES development, On premise deployment, ES services include business analysis, development, application configuration, and deployment.

• **Banner 9 ERP upgrade phase 2 web applications** – The Banner 9 upgrade phase 2 transitions self-service Banner (HokieSPA) from PL/SQL technology to lightweight web applications. As part of this effort, VT has developed numerous web apps that will need to be replaced either by new vendor applications or by rewriting the applications. The project plan for Phase 2 is still being analyzed.
  - Deployment schedule to be determined, Combination ES development and multi-vendor applications, ES services to be determined.

• **VT Carilion School of Medicine migration to VT college** – VTCSOM will become a VT College in 2018. To support this migration, the project plan includes admissions processes, course catalog and timetable configuration, academic history, transcripts and other processes.
  - 2018 deployment, Vendor application and ES development, On premise deployment, ES services include development, conversion, business process analysis, testing, and implementation.

• **Data integration technology solution implementation** – The data integration technology solution project is to provide ES with a more effective architecture for data and process integration that supports emerging technologies for structured and unstructured data.
  - Deployment schedule to be determined, ES services include analysis, procurement, and implementation.
Enterprise Administrative Systems Challenges

- **Talent Management**
  - Evolving skills to address changing environment
  - Fostering business knowledge in conjunction with technology expertise
  - Recruiting for today and tomorrow

- **Prioritization of Diverse Needs**
  - Myriad of requests across the institution
  - Responsiveness to university timelines
  - Increasing compliance requirements

- **Data Management, Technologies, and Analytics**
  - Diversity of data sources and types of data
  - Data governance
  - How can Enterprise Systems best assist in “Enabling our data-driven university”

- **Integration Complexity and Standardization**
  - Building a more resilient architecture for the future
The State of Human Resources in Higher Education

- Largely transactional organizations with very few strategic services or programs
- Often seen as a resource or function in support of “staff” and not faculty
- Typically supported by manual/paper-based processes with high error rates and slow turnaround times
The State of Human Resources in Higher Education

- Seen as providing low or marginal value to the University other than basic transactions like payroll, benefits administration, record keeping and compliance.

- Inadequate investment in technology and insufficient automation of processes.

- Limited investment in developing professional HR competencies and skills.
Poor use of employee data and analytics to help the university make informed decisions relative to recruiting, retention, compensation, benefits, etc.

At most large public research universities HR delivery models historically organized as follows:

- A central HR transactional unit
- A highly distributed network of individuals at the college / school / department / unit level responsible for delivering and administering HR policies and processes
  - Often lacking the skills, knowledge and competencies necessary for delivering effective HR services
Resulting Impacts

Inequities In Employment Practices

- Different standards and criteria for recruitment and hiring
- Inequities in pay practices
- Uneven job titling
- Differences in promotion criteria
- Unequal application of HR policies

- Increased risk of compliance claims and litigation
- Negative impacts on morale

Inability to Address Strategic Needs of the Current and Future Workforce

- Limited focus on workforce planning
- Little to no succession planning
- Risk of not meeting the future capacity and competency needs of the university
- Underdeveloped professional development programs
- Not addressing issues of culture, retention and employee engagement

- Critical gaps in workforce skills
- Unprepared for baby boomer retirements and emergence of millennial workforce
- Loss of intellectual capital
Three primary ways HR creates value for the Institution

1. **Strategic Value and Leadership**
   (25% of all time and investments)
   - Building organizational competencies
   - Developing and delivering effective retention, succession and recruiting strategies
   - Driving culture and leading change

2. **Consultative Value**
   (50% of all time and investments)
   - Guiding and supporting leaders and managers on workplace needs and issues
   - Consulting with employees on workplace needs and issues

3. **Administrative Value**
   (25% of all time and investments)
   - Payroll and Benefits Administration
   - Record Keeping
   - Compliance
Common Characteristics in Higher Ed HR

**HR at Virginia Tech**

- **Administrative, Rather Than Strategic:** The current HR function is focused on transactional and administrative activities rather than adding strategic value.

- **Inconsistent, Decentralized HR Services:** The level and quality of HR services across the institution is highly varied.

- **Inequity in Pay and Other Employment Terms:** Policies are broad or ill-defined at Central HR and units have made their own decisions and policies to fit their needs, resulting in differing pay and other practices across the institution.
Common Characteristics in Higher Ed HR

**HR at Virginia Tech**

- **Disjointed Approach to Compensation:** Different areas of the institution pay differently for similar work. As a result, employees are constantly moving to new positions to improve their pay.

- **HR Underperformance:** Not fully leveraging industry and HR best practices.

- **Inefficient Processes and Systems:** Multiple handoffs, approvals and paper based processes.
Common Characteristics in Higher Ed HR

HR at Virginia Tech

- **Risk Aversion**: Greater focus on avoiding risk than on strategic growth and improvement.

- **Ineffective, Inconsistent Performance Management**: Managers do not often provide their direct reports with regular feedback, and the performance management program is not sufficiently focused on professional development.
The Need for Change

Virginia Tech HR Service Distribution

Very Few Strategic Services

Some Consultative Services

Majority of HR Resources and Services Administrative
Emerging HR Model at Virginia Tech

- Business Partners aligned to each major academic and administrative Division
  - Reports to University HR leader
- Newly added focus on strategic HR services and programs
- Enhanced efficiencies and delivery of administrative services
Benefits of the Emerging Model

- Consistency and equity in compensation and other HR policies
  - Fair and consistent pay practices
  - Improved retention strategies and activities
  - Reduced risk of employment related claims or litigation
Benefits of the Emerging Model

Proactively identifying and addressing the University’s HR’s needs to ensure that it has the right people and talent to achieve its future goals.

- On-going assessment of the VT workforce with accompanying plans to address staffing needs, enhance skills, and build high performing cultures
- Targeted training and development activities
Benefits of the Emerging Model

- Professional development and career framework opportunities that align with the current and future business needs and strategy of the institution
- Integrated performance management and employee development
Benefits of the Emerging Model

- Support for strengthening morale and employee engagement
- More consultation and support on strategic recruiting needs
Benefits of the Emerging Model

- Faster and simpler HR processes that are aligned to the demands of the University.
  - Streamlined recruiting tools and hiring processes, eliminating current bureaucracies
  - Improved onboarding experience for all new hires
  - Learning Management System to facilitate value-added professional development
Future Agenda Items and Closing Remarks
by Mr. Mehul Sanghani, Chair