

Committee Minutes

GOVERNANCE AND ADMINISTRATION COMMITTEE Room 170, New Classroom Building June 3, 2018

Committee Members: Mehul Sanghani (Chair), Mehmood Kazmi, Jeff Veatch,

Other Board Members: Greta Harris, Charles T. Hill, Anna James, Letitia Long, Robert J. Mills, Jr., Chris Petersen, Debbie Petrine (Vice Rector), Michael Quillen, Wayne H. Robinson, Dennis Treacy (Rector), Horacio Valeiras.

Representatives to the Board: Seyi Olusina, Brett Netto, Hans Robinson, Robert Sebek

VPI & SU Faculty, Staff, and Students: Kim O'Rourke, Lorenzo Amani, Mac Babb, Whit Babcock, Lori Buchanan, Allen Campbell, Cyril Clarke, Shelia Collins, Al Cooper, Steve Filipiak, Ron Fricker, Deborah Fulton, Susan Gill, Dee Harris, Kay Heidbreder, Rachel Holloway, Rachel Iwicki, Sharon Kurek, Curtis Mabry, Theresa Mayer, Heidi McCoy, Robin McCoy, Ken McCrery, Ross Mecham, Nancy Meacham, Scott Midkiff, Sally Morton, Mike Mulhare, April Myers, Kelly Oaks, Mark Owczarski, Patty Perillo, Ellen Plummer, Menah Pratt-Clarke, Scot Ransbottom, Dwight Shelton, Timothy Sands, Savita Sharma, Kayla Smith, Laurie Stacy, Jon Clark Teglas, Tracy Vosburgh, Lisa Wilkes, & Sherwood Wilson

OPEN SESSION

1. **Welcome and Opening Remarks.** The start time of the committee meeting was delayed, and the committee was convened at 4:22 pm. Mehul Sanghani, Chair of the Governance and Administration Committee, welcomed committee members, guests, and invited presenters. He then provided a brief overview of the committee's scope, as well as information regarding the charge given to the committee by the Rector of the Board to provide recommendations to the Task Force on Board Structure and Governance regarding the student representative selection process, governance, and committee assignments.
2. **Consent Agenda.** The committee approved the items listed on the Consent Agenda.
 - a. Minutes of the November 6, 2017, Meeting
(*Note: This committee did not meet in conjunction with the March 2018 Board of Visitors meeting*)
3. **Update on Search for the Vice President for Human Resources.** M. Dwight Shelton, Jr., Interim Senior Vice President for Operations and Administration, and chair of the search committee for the new Vice President for Human Resources,

provided the committee with an update on the status of the search that is nearing completion.

- 4. Overview/Status Report on Human Resources Transformation Project.** Lisa Wilkes, Interim Vice President for Human Resources, provided the committee with a status report on the ongoing Human Resources Transformation Project.

Dr. Wilkes began with a brief overview of the transformation project, explaining that the department is moving away from a decentralized, administratively focused model, to a more centralized function that emphasizes the consultative and strategic values of an HR Department, while also maintaining its current administrative functions. Virginia Tech is not the only institution moving to this model, as UVA, Penn State, and Ohio State are also undergoing similar transformations of their own in an effort to prepare for changes in the workforce, as well as in the digital/mobile world. Currently, the focus of Virginia Tech's project has moved from the administrative to the consultative and strategic arms of the new model, as the organizational structure of the department is being put into place and consulting teams are emerging. A Conceptual Framework for Strategic Engagement has been proposed that focuses on 1) Organizational Capacity, achieved through recruiting and retention strategies, and 2) Organizational Competency, achieved through learning and development strategies. Benefits of the proposed framework include proactively identifying and addressing needs; enhancing old and creating new programs/services to retain talent and strengthen employee morale and engagement; creating consistency and equity in service delivery, policy, and practices; and aligning faster and simpler processes to reach university goals. The guiding principles behind the framework and its goals are to ensure that the HR function is strategic and collaborative, and that the university possesses the workforce capacity and competencies to achieve its mission, vision, and strategic priorities. Along with that, the department aspires to design, develop, and deliver strategic programs and services that are accessible, inclusive, and supportive of all faculty and staff, in order to achieve their goal of being effective and responsible stewards of university resources. Challenges and opportunities include building a future state while maintaining the current state in a multi-year initiative, establishing metrics and analytics to allow for data-driven decisions, and planning for the future workforce while keeping both current and new employees engaged. Overall, the university is well-positioned to become a national leader in human resources as the transition continues, and the people of the university remain and will always be its greatest asset.

- 5. Information Technology Presentation.** Scott Midkiff, Vice President for Information Technology and Chief Information Officer, presented to the committee on the Division of Information Technology, its mission, and its alignment with the university's mission and strategic initiatives, with emphasis on teaching and learning and research computing.

The mission and goals of the Division of IT are to support and enable the mission and goals of the university in all areas. In the area of teaching and learning, the Division of IT supported 85 Virginia Cyber Range courses this past year in 40 Virginia high schools, 6 community colleges, and 7 universities, with a total of over 500 student and instructor accounts. These courses allow for isolated network environments in which students can safely complete hands-on cybersecurity exercises and competitions. Along with that, the Division also continued to support diverse teaching and learning models, from fully online courses, to hybrid classes, to technology-mediated learning, to technology-assisted learning using lecture capture. The Division's focus is on people and ideas, as well as technology, as it strives to enable innovation in teaching and learning, as well as course redesign and accreditation, while also maintaining and promoting best practices. This past year the university saw a shift in technology, introducing Canvas, the new learning management system; Kaltura, the new lecture capture and video content management system; and Zoom, the new videoconferencing system. Ninety-three percent of this year's graduating undergraduates took at least one online class, almost half of which actually took more than three online courses. In the realm of Research, the Division has worked to allow open access to high-performance computing systems and storage, as well as invested in the computing program for priority access for participating researchers. Currently, high-performance computing resources are supporting 249 projects across the university. The Division has also worked to ensure data and security compliance for researchers in order to create secure research environments, while also addressing the growing demands for both network capacity and storage. The university is demonstrating an ever-growing demand for wireless availability on campus, particularly outdoors; on a single day this spring, the wireless network carried 80 terabytes of data. Opportunities and challenges for the Division include recruiting, retention, and professional development of their workforce, as well as a shift in funding needs, as there is a movement from "buying" to "subscribing" to software because of the cloud.

6. **Presentation of the Falcon Social Tool.** Tracy Vosburgh, Senior Associate Vice President for University Relations, presented to the committee on the Falcon social tool and its ability to monitor the university's social media footprint, as well as facilitate more effective means of sharing news with the community across various platforms. She was joined by Mac Bab and Mike Mulhare, who spoke to the utilization possibilities of the tool for each of their respective areas.

Currently, the university does not utilize a shared system to coordinate, align, and monitor Virginia Tech's social media footprint across all units; everything is done individually. In a strategic effort to do so, a one-year contract was recently signed for the testing of Falcon, a social tool that provides means to better collect and analyze data, as well as the ability to post and monitor updates on all platforms simultaneously. Mike Mulhare, Assistant Vice President for Emergency Management, presented a case study showcasing vt.edu web traffic on a typical day vs. a day on which an emergency incident occurred, specifically noting the

spikes in web traffic that occurred as VT Alerts were released. He also presented comparisons of web traffic related to three separate emergency incidents, which further illustrated the fact that many individuals are relying more and more on the web and social media to obtain information. Therefore, the use of such platforms can prove to be very beneficial when it comes to crisis management and communicating with the Virginia Tech Community. Deputy Chief Mac Babb of the Virginia Tech Police Department spoke to the fact that the VTPD currently has no social media management tools and how the implementation of such a tool would assist in the areas of threat assessment, engagement, and the overall ability to share information with the community in a more timely and effective manner. The goal for the implementation of Falcon is that it will successfully allow for better management of the university's online reputation, pave the way for more data-driven decisions, and ensure more proactive and reactive approaches across the board in relation to social media.

- 7. Presentation of Student-Athlete Demographics.** Whit Babcock, Director of Athletics, presented to the committee on both Student-Athlete and Athletics' Faculty and Staff demographics, as well as spoke to the department's current and ongoing diversity and inclusion initiatives.

Athletics is one of the most diverse units on campus, as the student-athlete population enhances the entire student body population, and the department is recruiting in non-traditional high schools in Virginia. In an effort to make the unit even more dynamic, creative, and responsive, the department also strives to continue the trend of building a faculty and staff population that reflects that of their student-athletes. From July 1, 2017 to April of 2018, 23% of Athletic Department hires were from unrepresented groups, as were six of the ten Head Coaches that have been hired since 2012. In the spring of 2017 the department formed the Athletics Diversity and Inclusion Committee, and have since implemented several initiatives to better inform and educate both its students and its employees alike. Such initiatives include various lectures and trainings presented to both students and staff, department representation on various diversity and inclusion related committees, and financial contributions and sponsorships made on behalf of the department in support of events and groups that promote and value inclusion and diversity initiatives.

- 8. Future Agenda Items and Closing Remarks.** Mehul Sanghani, Chair of the Governance and Administration committee, discussed future agenda items for the committee. He then offered closing remarks and requested a motion for adjournment.

There being no further business, the meeting was adjourned at 5:46 p.m.



Board of Visitors

Division of Human Resources Transformation Update

Lisa J. Wilkes, Ph.D.

Interim Vice President, Human Resources
June 3, 2018



■ Change vs. Transformation

- Change – “implementing finite initiatives, which may or may not cut across the organization.”
- Transformation – “reinvent[ing] the organization and discover[ing] a new or revised business model based on a vision for the future.”

Ashkenas, R. (January 15, 2015). We Still Don't Know the Difference Between Change and Transformation. *Harvard Business Review*. Retrieved from <https://hbr.org/2015/01/we-still-dont-know-the-difference-between-change-and-transformation>.

■ What is the HR Transformation?

- Intentional, thoughtful evolution.
- Talent- and people-focused.
- Centered around university vision, mission, strategic goals.
- Multiple change management projects.



■ Why transform Human Resources?

- Changing workforce demographics.
- Rapidly changing environment; digital/mobile world.
- Increased competition for talent.
- Inconsistent HR practices.
- No uniform HR strategy.
- Transactional-based focus.
- Develop programs that support the university's vision, mission and strategic goals.



■ Setting the stage for change. Did you know?

- The Millennial generation (~ages 24 to 38) is expected to overtake Baby Boomers (~ages 54 to 72) in population in 2019. Millennial numbers will swell to 73 million and Boomers decline to 72 million.
- Generation X (~ages 39 to 53) is projected to pass the Boomers in population by 2028.
- 328 million new devices connect to the internet each month. By 2020, there will be 50 billion connected devices.
- There were 6.6 million job openings as of March 2018, up from 2.2 million in 2009.

These are just a few facts that are driving our HR transformation.

■ National Workforce Trends

Future Workforce Trends

- Workforce is aging.
- Workforce is becoming more diverse.
- Workforce continues to become more educated.
- Globally, US labor force will continue to shrink.

Actions for Consideration

- Use data for workforce planning and identifying shifting demographics.
- Develop cross-generational and diverse talent pipelines.
- Develop talent strategies for workforce segments at all ages and different stages of their careers.

Source: Meet the US Workforce of the Future, Deloitte Review, July 2017

■ To address these imperatives, We must:

- Understand and solve for the needs of employees and managers to achieve results for the university.
- Use predictive analytics to anticipate change in the workforce and economy.
- Align HR goals with university goals.
- Design solutions and inform choices to be a strategic partner to line managers, who are primary owners of talent, leadership and culture.
- Help leaders balance risk.

■ Our journey towards transformation

- February 2016 – April 2016
 - Engaged Sibson Consulting to review human resource practices and processes.
 - Interviewed HR employees, key stakeholders, and executive management.
- May 2016 – March 2017
 - Reviewed findings and recommendations with key stakeholders.
 - Established HR Executive Committee – provide strategic oversight.
 - Established HR Advisory Committee – develop new HR model.
- April 2017 – July 2017
 - Formalized conceptual framework for new HR model.
- August 2017 – present
 - Established HR division and organizational framework to support new model.
 - Implementing process improvements (over 100 completed thus far).
 - Refining conceptual framework to support strategically focused HR function.
 - Implementing new programs and services in support of strategic HR.
 - Establishing HR Divisional Directors.
 - Launched national search for vice president for human resources.

- **The model under which we operated**



■ The model we are moving toward



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

Central

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

Local

3. Administrative Value (25% of all time and investments)

- Payroll and Benefits Administration
- Record Keeping
- Compliance

Shared Services

■ Our Vision

We claim our role in fostering an inclusive and engaged culture of excellence that enables Virginia Tech employees to serve as a force for positive change in a world without boundaries.



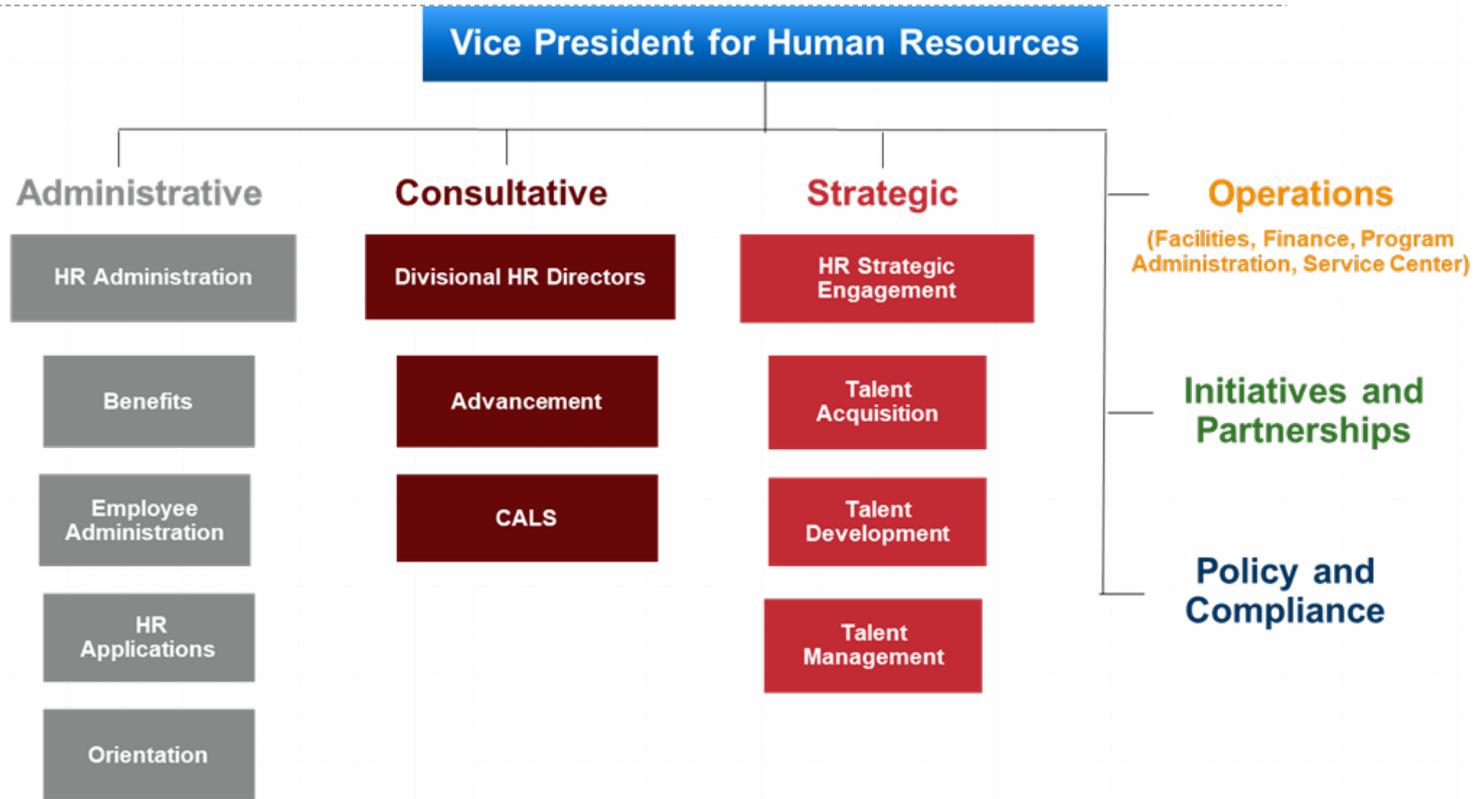
■ Our Mission

We will innovate to serve Virginia Tech as a best-in-class partner by providing:

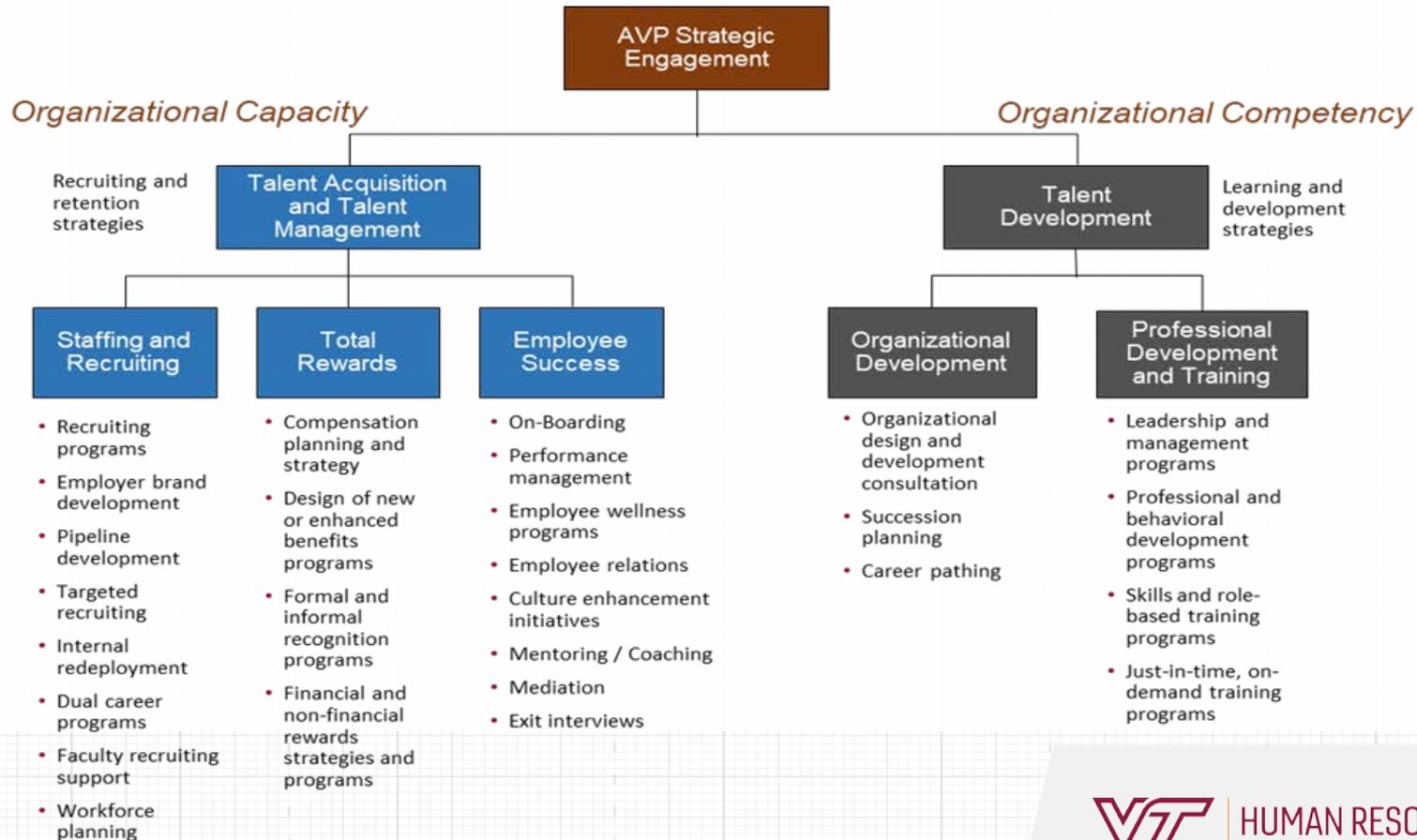
- **Strategic** services that enhance the university's ability to attract, retain and develop talent.
- **Consultative** services that create workplace solutions through strengthened collaboration.
- **Administrative** services that deliver simple, timely, and accurate HR processes and information.



HR Organizational Structure – Spring 2018



■ Conceptual Framework – Strategic Engagement



■ Benefits of New Framework

- Proactively identifies and addresses university human resource needs – right people and talent to achieve goals.
- Enhances current programs/services and develops new programs/services to retain talent and reward employees.
- Creates consistency and equity in the delivery of HR services, policies and practices.
- Reduces institutional risk by embedding HR professionals in each college/division.
- Strengthens morale and employee engagement.
- Aligns faster, simpler HR processes that are aligned to university goals.

■ Guiding Principles

- Ensure HR is a strategic, collaborative partner.
- Ensure that the university has the workforce capacity and competencies to achieve our mission, vision, and strategic priorities.
- Design, develop, and deliver strategic HR programs and services that are accessible, inclusive, and support all faculty and staff.
- Ensure that HR supports the goal of being effective and responsible stewards of university resources.
- Use data and metrics to make informed workforce decisions.
- Manage transformation and multiple change initiatives.

■ Challenges/Opportunities

- Manage/embrace change – significant cultural and operational change.
- Develop strategic partnerships/collaborations.
- Maintain “current state” while also building “future state.”
- Ensure transformation decisions are thoughtful and intentional.
- Allocate resources – significant investments will be required (e.g., positions, programming support, IT infrastructure).
- Sustain action – multi-year initiative.
- Understand HR data and establish metrics and analytics to drive decisions.
- Address immediate workforce needs and plan for future workforce.
- Communicate “future state” HR programs, services, structure.
- Engage employees.

■ Summary

- Organizational framework is developed.
- Resources have been allocated to support new service delivery model in benefits, service center, leave, and employee administration.
- Business process redesign on-going.
- Strategic Engagement and consulting teams are emerging and developing new programs and services.
- University is well-positioned to be national leader in human resources.
- Our people are our greatest asset.

2018 Service Award Program

776 employees
14,400 years of
service



Questions?



*Division of
Information Technology
Update*

*Board of Visitors
Governance & Administration Committee
June 3, 2018*

Scott F. Midkiff

Vice President for IT & CIO

midkiff@vt.edu

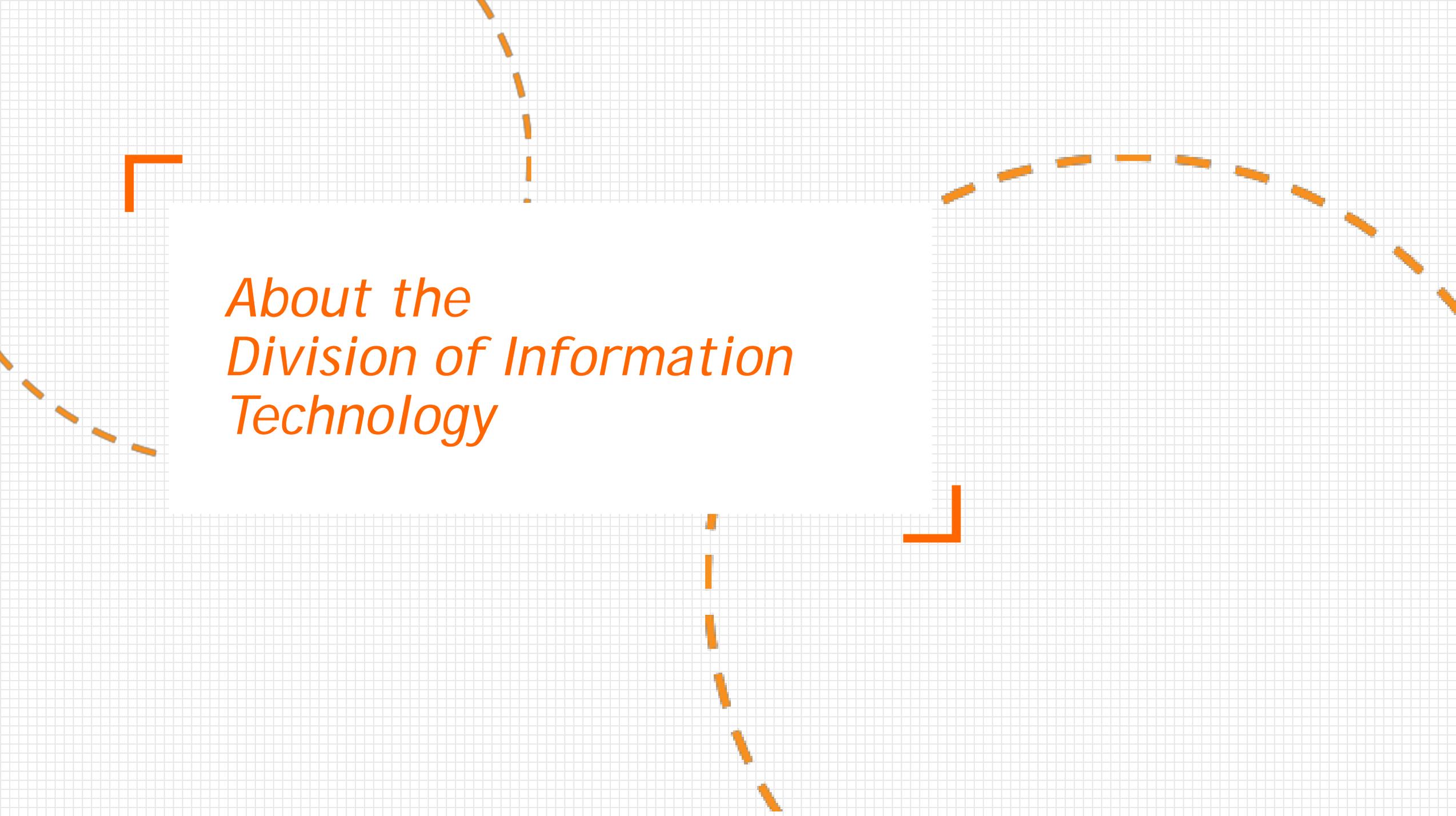
<https://it.vt.edu>





Topics

- About the Division of Information Technology
- Aligning Information Technology with Virginia Tech's mission and strategic initiatives
 - Teaching and learning
 - Research
 - Operations and administration
 - Security
- Key takeaways



*About the
Division of Information
Technology*

Division of IT Mission

The mission of Virginia Tech's Information Technology (IT) organization 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; and
- **Provide, secure, and maintain systems** allowing the university to accomplish its missions.

IT Strategic Plan, 2012-2018

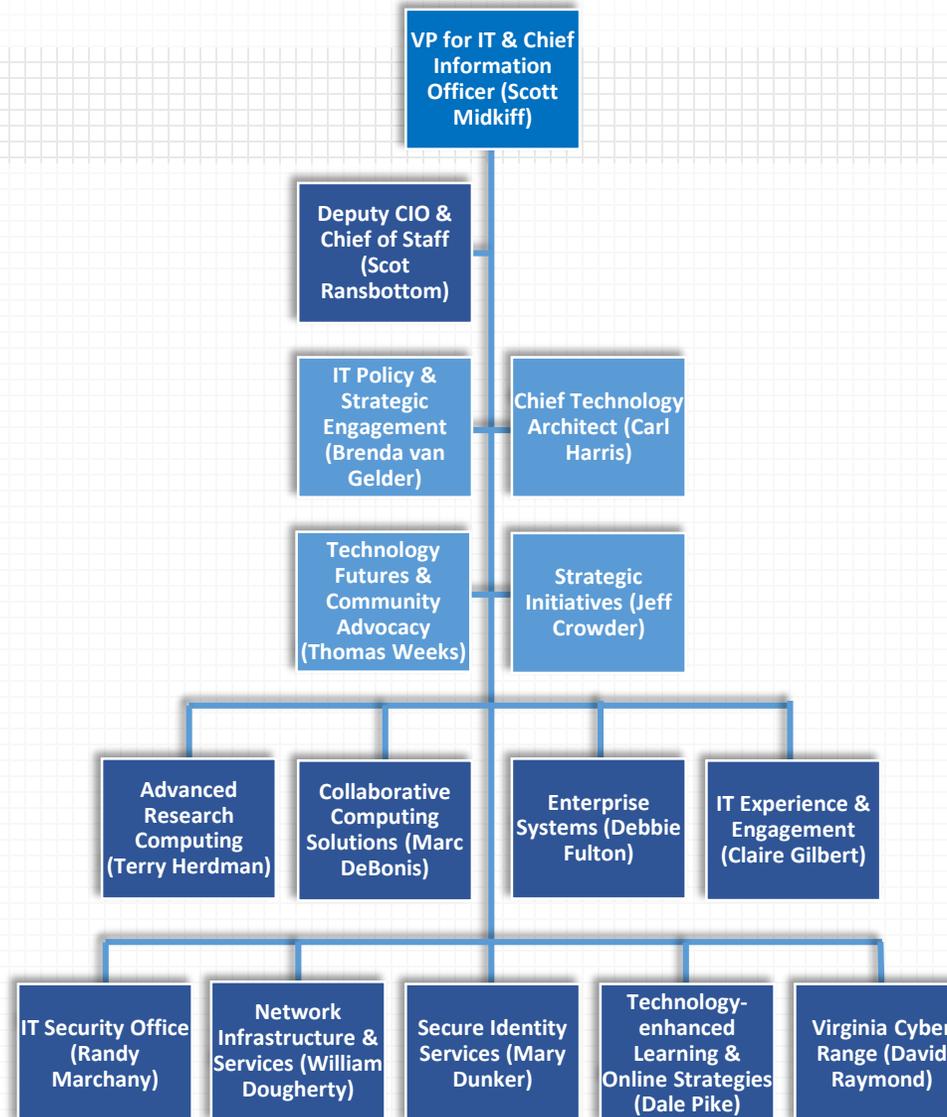
Supporting the mission of the university

- 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

Division of IT Organization (1/3)



Division of IT Organization (2/3)

- **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 (3/3)

- **Network Infrastructure & Services (NI&S):** Provides network infrastructure for the university including wireless, Ethernet, voice services, 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



*Aligning IT with Virginia
Tech's mission and
strategic initiatives*



Teaching and Learning Selected Recent Accomplishments

- Transition to Canvas learning management system (LMS)
 - More modern user interface
 - More flexible integrations
 - Hosted system
- Video for instruction transition
 - Zoom for videoconferencing; Kaltura for video content management
 - More modern and flexible capabilities
 - Improved cost containment
- Tools for academic integrity
 - iThenticate for checking originality of manuscripts, theses, and dissertations
 - Feedback Studio for checking originality of assignments (coming soon)
- Increased support for faculty innovation
 - Revamped faculty development program
 - Transition of InnovationSpace to Innovation and Outreach Studio
 - Creation of TLOS Learning Studio
 - Revamped faculty grant programs – 4-VA, course design and development, and innovation grants
- Virginia Cyber Range
 - State-funded cyber security education initiative for public K-12, community colleges, and universities

Teaching and Learning Video for Instruction



Current Usage (Annual)

>150,000 attendees/students >40,000 meetings
>3.6 million minutes of content >160 courses recorded



Planning & Implementation



Current Contracts Expire June 2018

Analysis of Needs & Report



Teaching and Learning Innovation/Outreach Studio



1140 Torgersen Hall

6/3/2018

12

Provides
Venue for
Collaboration
and Faculty
Media Needs

Strengthens
TLOS's Focus
on Building
Faculty Digital
Fluency

Expands
User Experience
and Design
Thinking
Offerings

Student
Fellows Partner
with Faculty on
"Sandbox
Projects"

Consolidates
Student-Facing
Media Services
in Newman
Library

Updated
Grant Programs
Help Faculty
Explore New
Technologies

Teaching and Learning The Virginia Cyber Range



VIRGINIA
CYBER RANGE

<https://virginiacyberrange.org/>



Courseware Repository

Courses, modules, and exercises for use in Virginia high school, community college, and university cybersecurity curricula



Exercise Area

Isolated network environments where students can safely complete hands-on cybersecurity exercises and competitions



Community of Purpose

Encouraging a community of cybersecurity educators to share best practices and improve cyber education in Virginia

- 85 Virginia Cyber Range courses supported this year

- 55 courses at 40 Virginia high schools
- 17 courses at 6 community colleges
- 13 courses at 7 universities

- Over 500 student and instructor accounts

- Executive committee partners: Virginia NSA Centers of Academic Excellence in Cybersecurity Education

- Danville CC
- George Mason University
- James Madison University
- Longwood University
- Lord Fairfax CC
- Norfolk State
- Northern Virginia CC
- Radford University
- Thomas Nelson CC
- Tidewater CC

Teaching and Learning

Enabling Diverse Models for Teaching and Learning

Models

- Fully online courses – asynchronous
 - Example: Master of Information Technology
- Fully online courses – synchronous
 - Example: Commonwealth Graduate Engineering Program (CGEP)
 - Example: School of Public and International Affairs (SPIA) graduate program
- Hybrid courses/flipped classrooms
 - Example: Biology courses
 - Example: Multiple Winter Session courses
- Technology-mediated learning
 - Example: Math Emporium
- Technology-assisted learning using lecture capture
 - Example: College of Veterinary Medicine

Teaching and Learning

Enabling New Models for Teaching and Learning

Capabilities – Focus on people and ideas

- Enabling innovation in teaching and learning
 - Innovation/Outreach Studio
 - “Sandbox” grants
 - Innovation in Learning grants
- Enabling course re/design and credentialing faculty for SACS
 - Learning Experience Design services
 - Design and Develop Awards
 - 4-VA grant initiatives
- Promulgating best practices
 - Networked Learning Initiative classes, workshops, and seminars

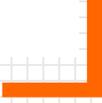
NLI (2016-2017)

1,405 unique participants
13,884 credits earned



Teaching and Learning

Enabling New Models for Teaching and Learning



Capabilities – Focus on technology

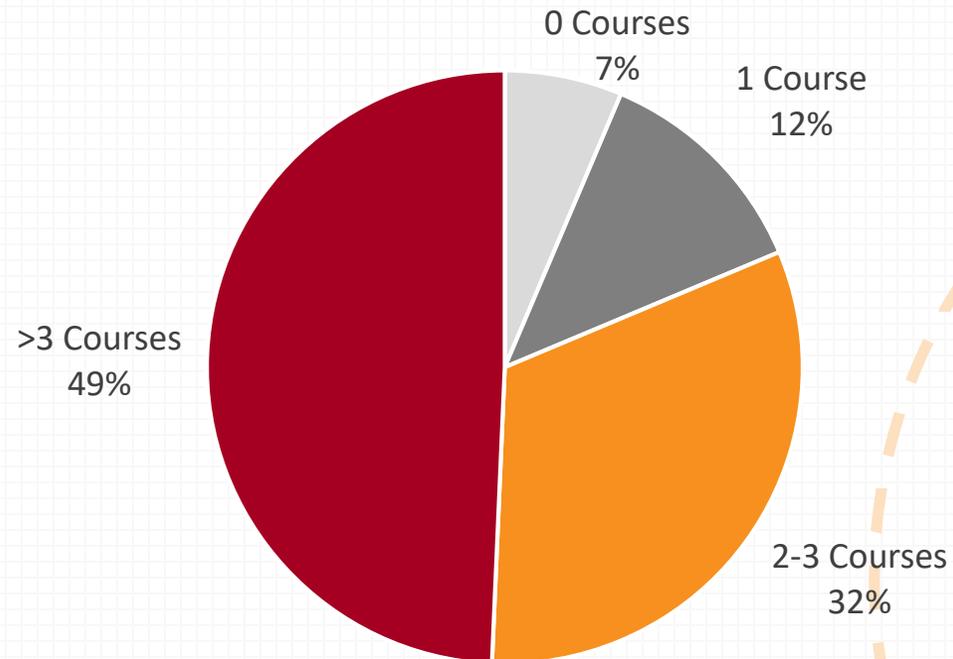
- Example technologies
 - Learning management system: Canvas
 - Lecture capture: Kaltura (was Echo 360)
 - Video content management: Kaltura (was Echo 360)
 - Videoconferencing: Zoom (was WebEx)
 - Connected classrooms

Teaching and Learning Enabling New Models for Teaching and Learning

93% of our graduating students have taken at least one online class

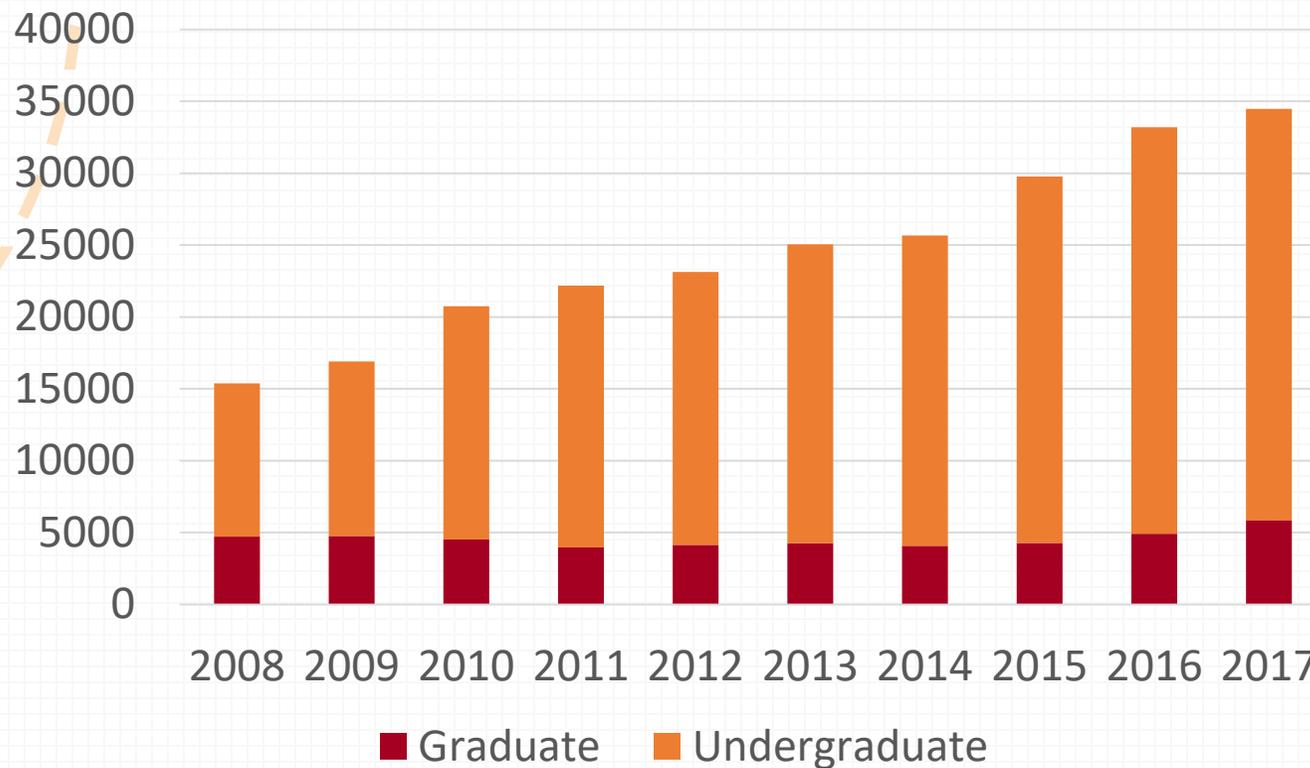
66% of our graduating students have taken at least one technology-assisted course

Online Courses Taken by Graduating Undergraduates, 2017-2018 (Preliminary Data)



Teaching and Learning Enabling New Models for Teaching and Learning

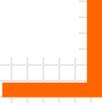
Enrollments in Online Course Sections, 2008-2017





Research

Selected Recent Accomplishments



- Enabling access to advanced research computing
 - Shared high-performance computing (HPC) systems
 - Addressing needs of multiple research domains
- Enabling data and IT security compliance for researchers
 - Secure research environment
- Meeting growing demands for network capacity
 - 100-gigabit per second connection to national research networks
 - 10-gigabit per second VT-Research Network for on-campus connections
- Meeting growing demands for storage
 - VT-Archive
 - Parallel file systems

Research Computing

Access to Advanced Research Computing

- Open access to high-performance computing systems and storage
 - BlueRidge
 - NewRiver
 - DragonsTooth
 - Cascades
 - Huckleberry
- Investment Computing Program
 - Joint investment for priority access for participating researchers



Huckleberry cluster for deep machine learning

Research Computing Access to Advanced Research Computing

System	Production	Nodes	Cores	GPUs	Research Domains
BlueRidge ¹	2013	408	3,264	260	General HPC workloads
NewRiver	2015	134	3,288	94	Diverse workloads
Cascades	2016	196	6,352	8	Diverse workloads
DragonsTooth	2016	48	1,152		General HPC workloads
NewRiver Addition	2017	39	1,092	78	Deep learning and GPU-based computations
Huckleberry ²	2018	14	224	56	Deep learning
Cascades Addition	2018	40	960	80	Deep learning and GPU-based computations
TOTALS³		879	16,332	576	

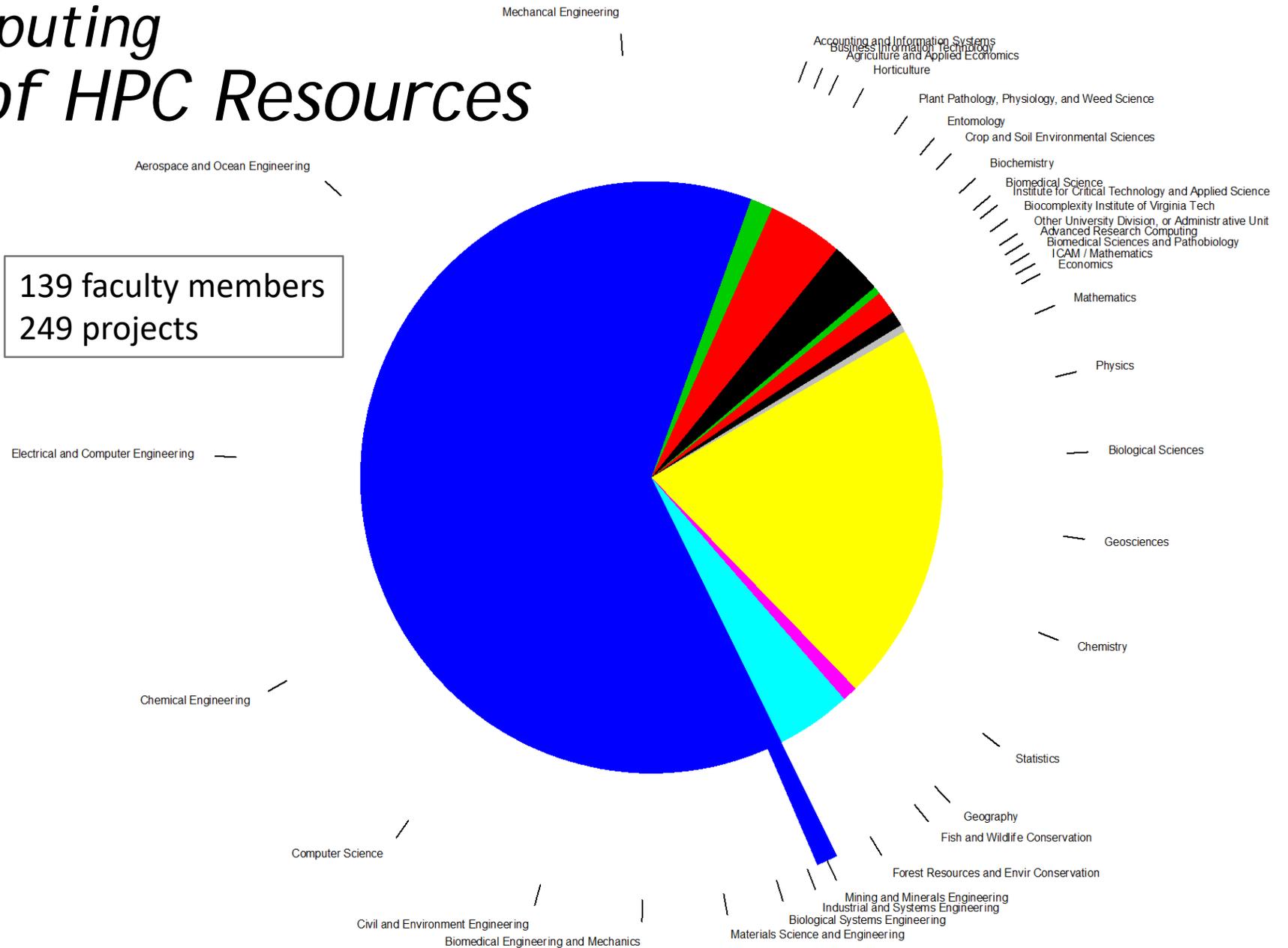
Notes:

1. BlueRidge contains Intel MIC cards rather than GPUs.
2. Huckleberry's Power8 processors support additional parallelism using hardware threads.
3. Not all core are equivalent, but this provides rough notion of system capabilities.

Research Computing Broad Use of HPC Resources

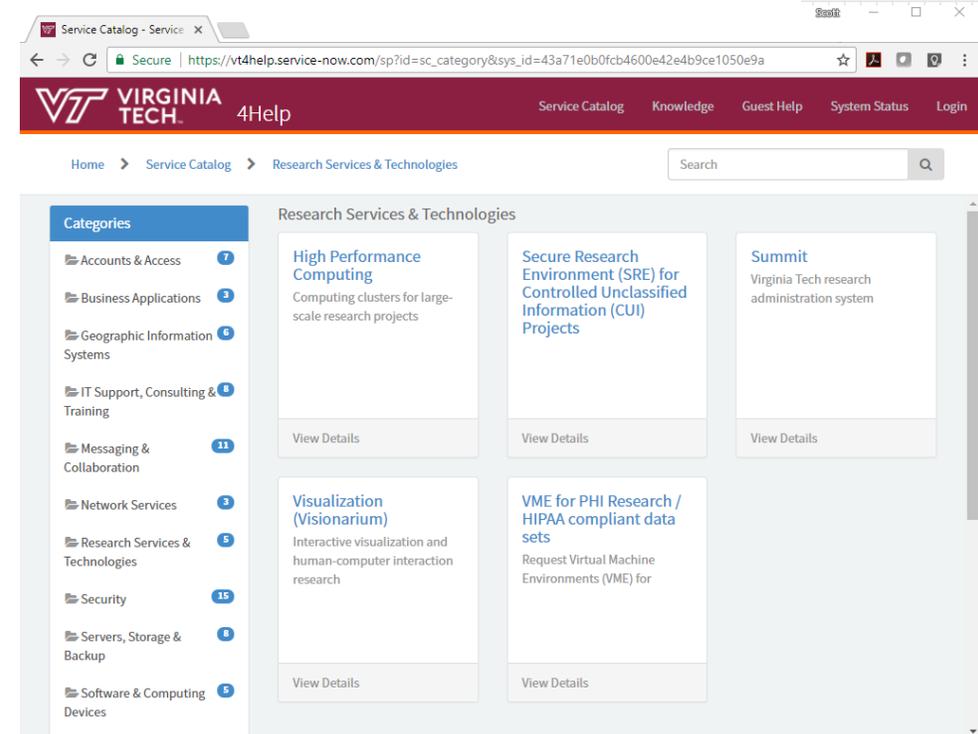
College of Engineering	0.63
College of Science	0.21
College of Agriculture and Life Sciences	0.04
College of Natural Resources	0.04
Agriculture & Life Sciences-College	0.03
College of Business	0.01
College of Natural resources	0.01
Information Technology	0.01
VT Research Institutes	0.01
College of Veterinary Medicine	>0.01
Virginia Tech Carilion Research Institute	>0.01

139 faculty members
249 projects



Research Data and IT Security Compliance

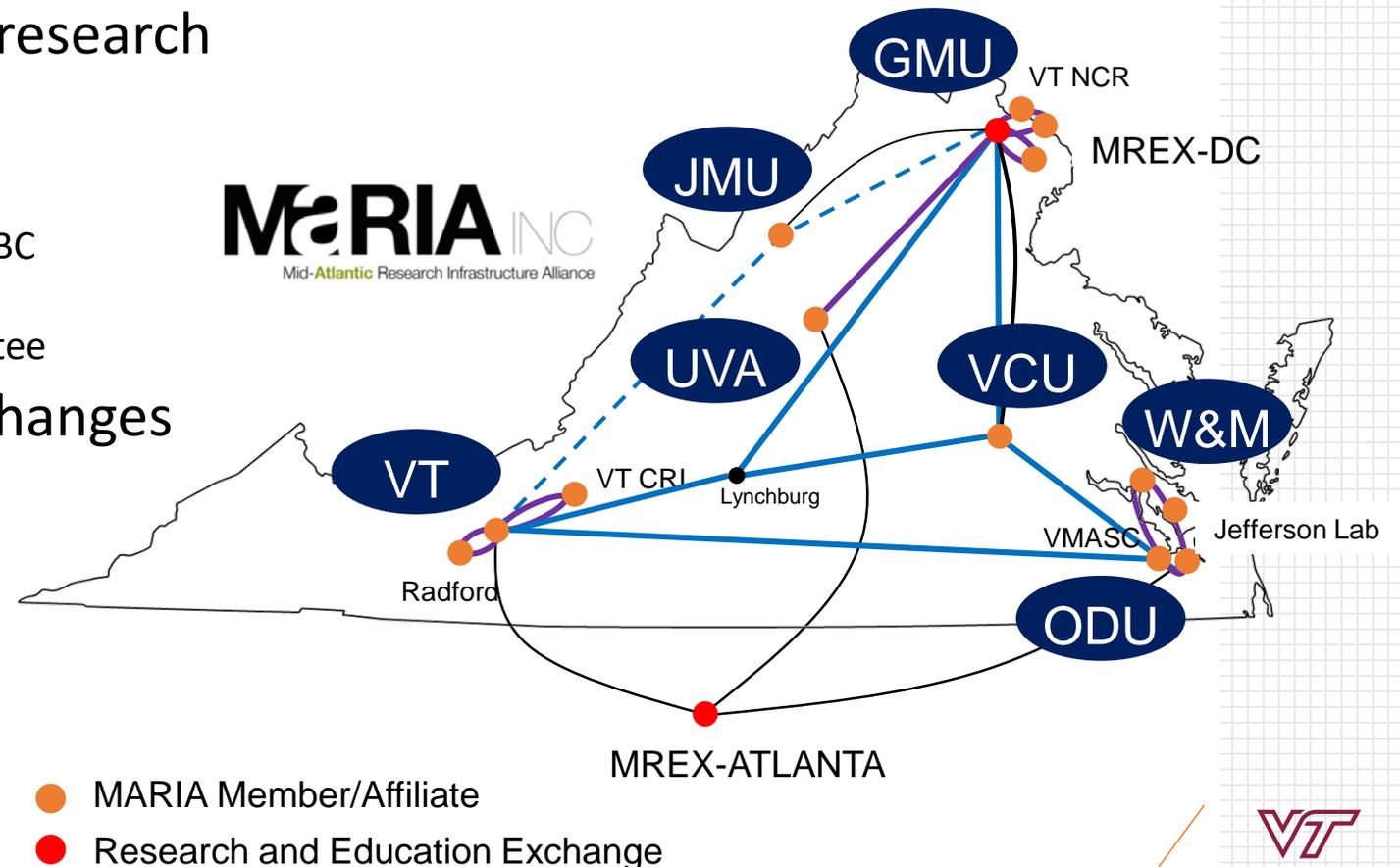
- Security and compliance are increasingly important for all of our data, but research data is on the front edge of demands
 - HIPAA/PHI
 - ITAR
 - CUI
- Research and Innovation and the Division of IT are collaborating to address the full scope of compliance needs for data associated with sponsored programs and non-sponsored research
- Division of IT services
 - Security and data compliance consultation
 - Security reviews
 - Compliant environments as solutions



Research

Mid-Atlantic Research Infrastructure Alliance (MARIA)

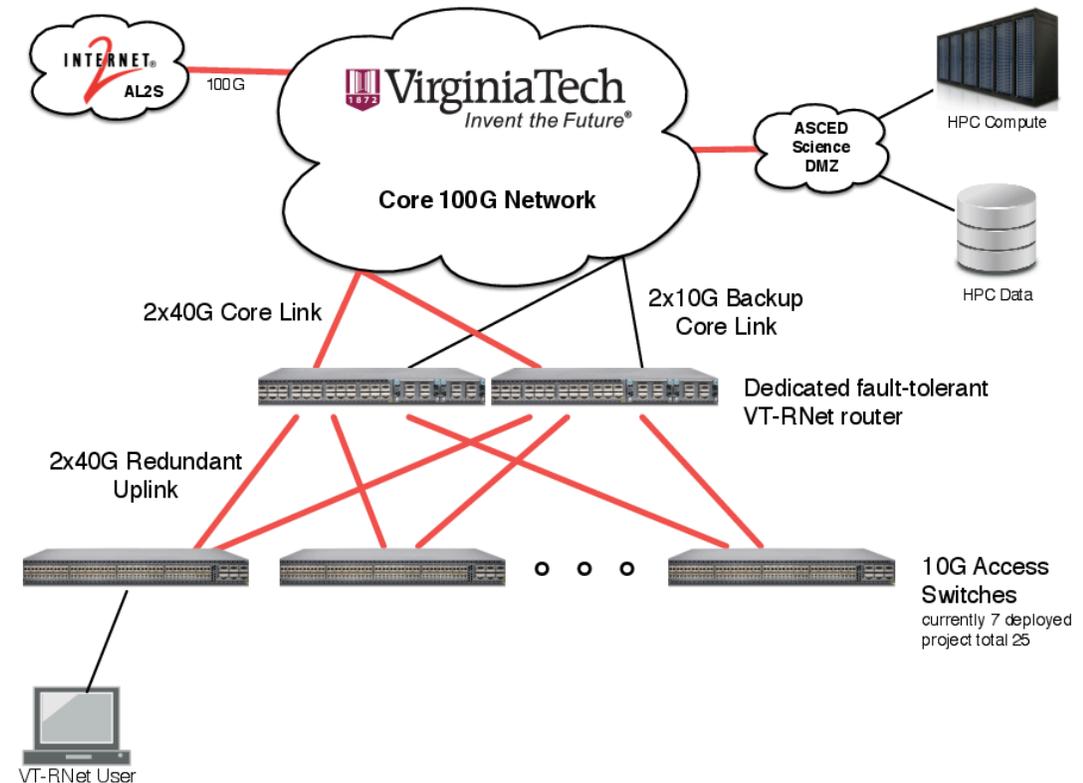
- Virginia universities collaborate for competitive advantages for research
- Shared cyberinfrastructure resources and expertise
 - Statewide network partnership with MBC
 - Private optical networks
 - Research Computing Technical Committee
- Research and Education Exchanges in DC and Atlanta
 - Access to Internet2, national and international research networks
 - Direct peering with content and cloud service providers
 - Low-cost commodity services



Research

VT-RNet: High Data-Rate Research Network

- VT-RNet provides 10-Gbps network connections to dramatically reduce times for large data transfers
- 21 connections in 10 buildings to date
- Request for proposal process used to select locations
- Funded through an NSF grant (Award 1541338) plus Division of IT



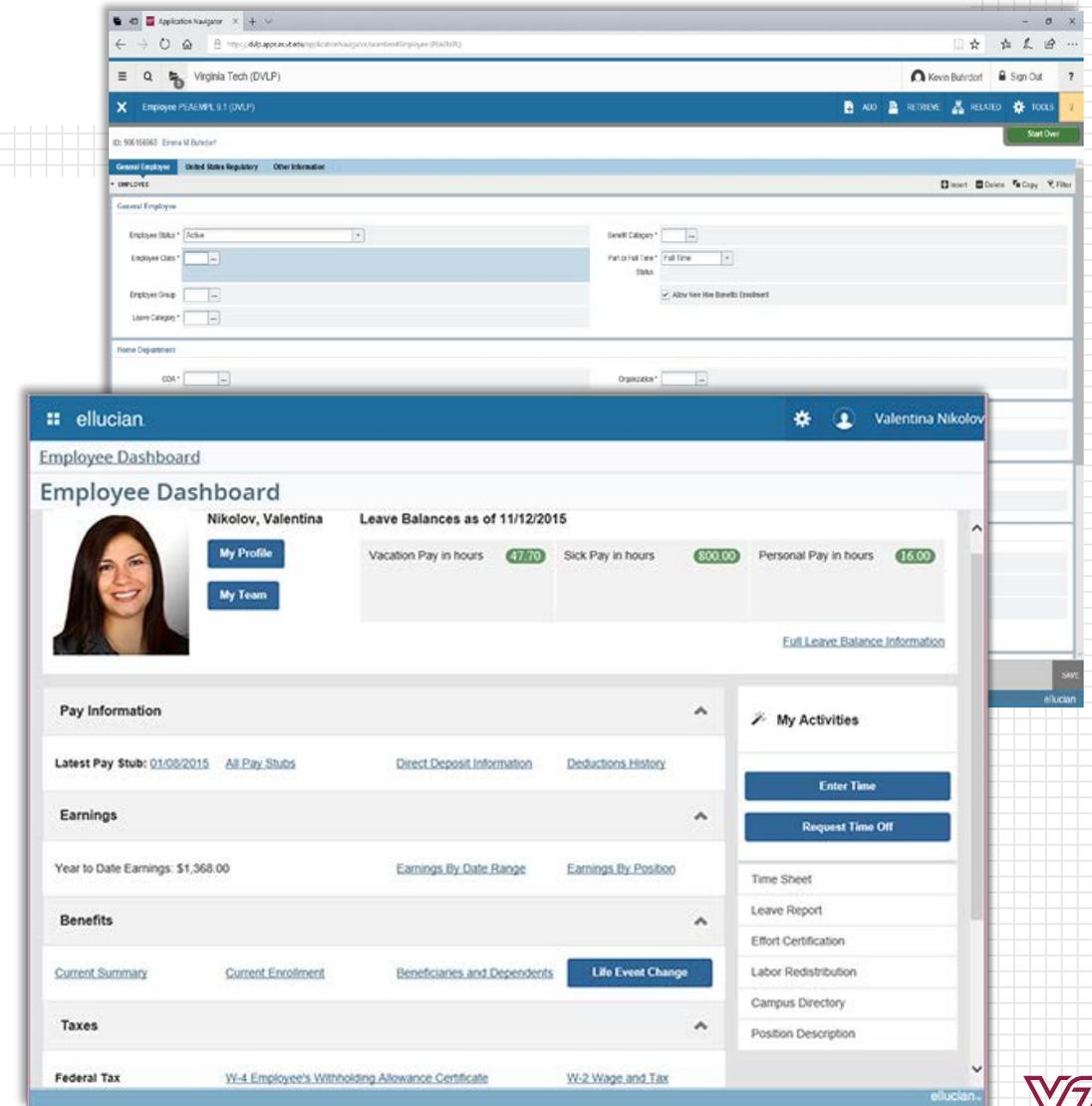


Operations and Administration Selected Recent Accomplishments

- Seeking to enable operational effectiveness
 - Increasing operational effectiveness within IT services
 - Leveraging IT for to provide broader benefits to the university's operational effectiveness
- Transition to Banner 9
 - New underlying technology to improve integration and maintenance
 - Improved user experience
- Blackbaud implementation for Advancement
- Summit research administration system
- Simplifying finding and accessing services
- Service partnerships
- Meeting the demands for connectivity

Operations and Administration Transition to Banner 9

- ES working closely with functional partners
- Banner 9, Phase 1
 - Administrative pages
 - To be completed by end of CY 2018
- Banner 9, Phase 2
 - Web applications
 - Three-year project
 - Opportunity to better manage and meet growing set of enterprise applications



Operations and Administration Blackbaud Deployment for Advancement

Class of 1982 35th Reunion - 2017

Start date: 11/11/2017
End date: 11/18/2017
Status: Active
Lookup ID: 8-1000514

Event expenses: Expense budget: \$0.00, Agree expenses: \$0.00, Amount paid: \$0.00, 0% of budget
Event capacity: Event capacity: 0, Will attend: 34, Will not attend: 0, 0% of capacity

12/7/2017 Payment: \$2,500.00

Transaction summary
Payment amount: \$2,500.00
Receipt amount: \$2,500.00

Status
Acknowledgements: Not acknowledged
Receipt preference: Per payment
Receipt status: Receipted
Receipt date: 12/7/2017
Receipt number: 12731
Post status: Posted
Post date: 12/7/2017
Post process ID: gl-1000097

Daily Reconciliation

Start Date: 12/25/2017 12:00:00 AM
End Date: 1/15/2018 12:00:00 AM
Report Area: Gift Accounting
Include: Both

Virginia Tech Daily Reconciliation
Daily Reconciliation for 12/25/2017 through 1/15/2018
Gifts Entered By: All

Constituent Lookup ID	Name	Revenue ID	Batch Number	Designation Name	Site Name	Transaction Amount	Transaction Type	Application	Appeal Name
		rev-12404763	VT-PD-41-01/12/2018	Hokie Scholarship Fund (883345)	Athletics	\$4.17	Payment	Pledge	1/12/2018
		rev-12402581	VT-CK-1515-01/04/2018	Animal & Poultry Sciences Annual Fund (881035)	Agriculture & Life Sciences	\$100.00	Payment	Donation	1/4/2018
		rev-12403512	VT-CK-1564-01/08/2018	Moss Arts Center Fund (873686)	Arts Initiative	\$2,000.00	Payment	Donation	Annual Giving FY18 Fall Campaign 1/9/2018

Operations and Administration Summit Research Administration System

Welcome | Summit

Secure | https://summit.cloud.vt.edu

SUMMIT

FEATURES USER GUIDE Go to Summit

The new research administration system

More Research. Less Paperwork.

Notifications

Proposal Directory Open Proposals Edit Proposal Navigation Panel

1. Initiate

Ready to Get Started? We will walk you through the process of initiating work with the Office of Sponsored Programs.

Get Started

START DETAILS BUDGET PERSONNEL REVIEW FINISH

Operations and Administration

Making it easier to find and access services

OneCampus (onecampus.vt.edu)

The screenshot shows the OneCampus website interface. At the top, there is a search bar with the text "enter grades" and a search icon. Below the search bar, there are navigation links for "Browse Categories" and "Search Results". The main content area displays "Search Results: Tasks" with a grid of service cards. Each card includes an icon, a title, a brief description, and a star rating. The cards include:

- Faculty Grade Sheet Menu (For Faculty and Advisors Only)
- Single Term GPA Calculator (Calculate potential semester GPA's ...)
- Student Schedule and Grades Menu (For Faculty and Advisors Only)
- Final Grades
- Midterm Grades
- Tentative Grades (For seniors graduating in the Spring)
- Graduate Contract (Enter and approve GA, GRA, GTE, ...)
- Enterprise Directory Group Manager
- The Writing Center (Help for students with reading and w...)
- Cranwell International Center
- Class Rank
- Overall GPA Calculator (Calculate potential GPA's for a seme ...)

At the bottom of the grid, there is a "See More" button. Below the grid, there is a section for "Search Results: Task Centers".

Service Catalog (4help.vt.edu)

The screenshot shows the Service Catalog website interface. At the top, there is a search bar and navigation links for "Service Catalog", "Knowledge", "Guest Help", "System Status", and "Login". Below the search bar, there is a banner image with the text "Greetings from VT" and "Wish you were here!". The main content area displays "Service Catalog Quick List" with a search bar and a list of services. The services listed include:

- 2-Factor Authentication
- 4Help - Information Technology Support
- Access to ESRI Training
- Accounts

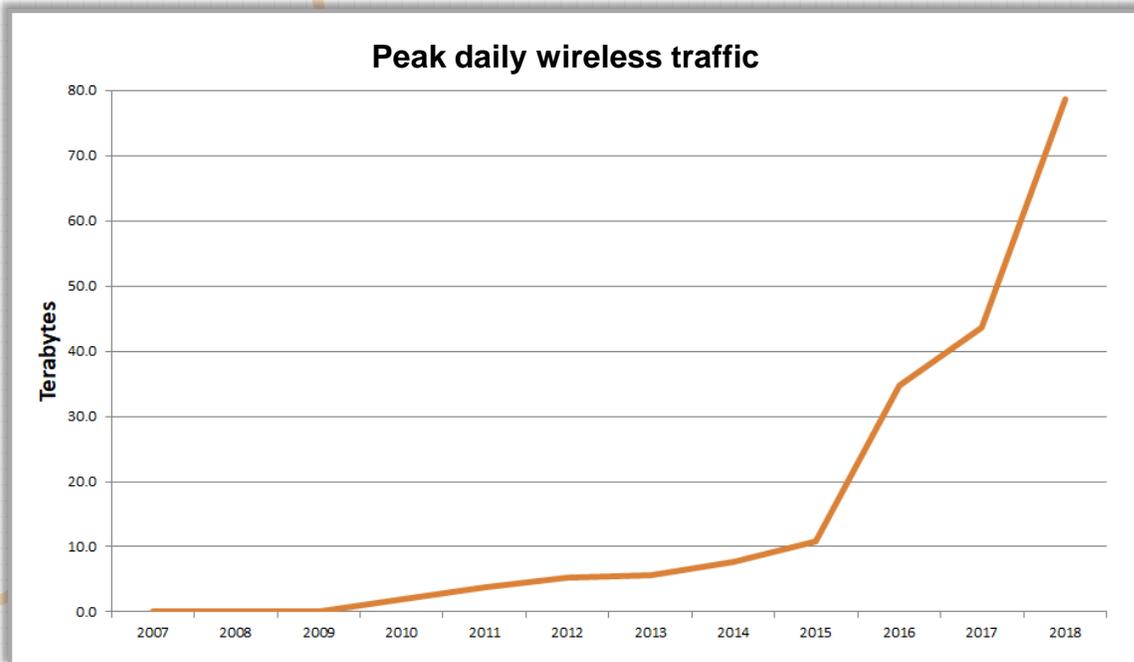
On the left side, there is a "Categories" section with a list of categories and their respective counts:

- Accounts & Access (7)
- Business Applications (3)
- Geographic Information Systems (5)
- IT Support, Consulting & Training (4)
- Messaging & Collaboration (11)

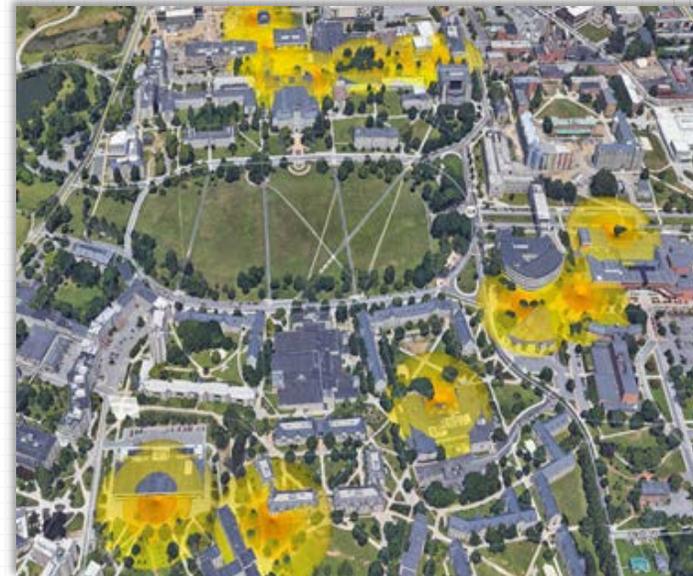
Operations and Administration Service Partnerships

- Service partnerships provide a more seamless support experience for users
- ServiceNow enables coordination between local IT support and enterprise (Division of IT) support
- Participants to date
 - President's Office (BAMS)
 - Provost's Office
 - Office of Assessment and Evaluation
 - Office of the Vice President for Research and Innovation
 - Graduate School
 - University Libraries
 - College of Agriculture and Life Sciences
 - College of Veterinary Medicine
 - Pamplin College of Business
 - VTC School of Medicine
 - Mining and Materials Engineering Department

Operations and Administration Meeting the Growing Demand for Wireless



	2004	2018	Change
# of academic bldgs with WiFi	104	184	+77%
# of AP's deployed in academic bldgs	929	4871	+424%
Avg SF coverage per AP	5682	1648	-70%





Security

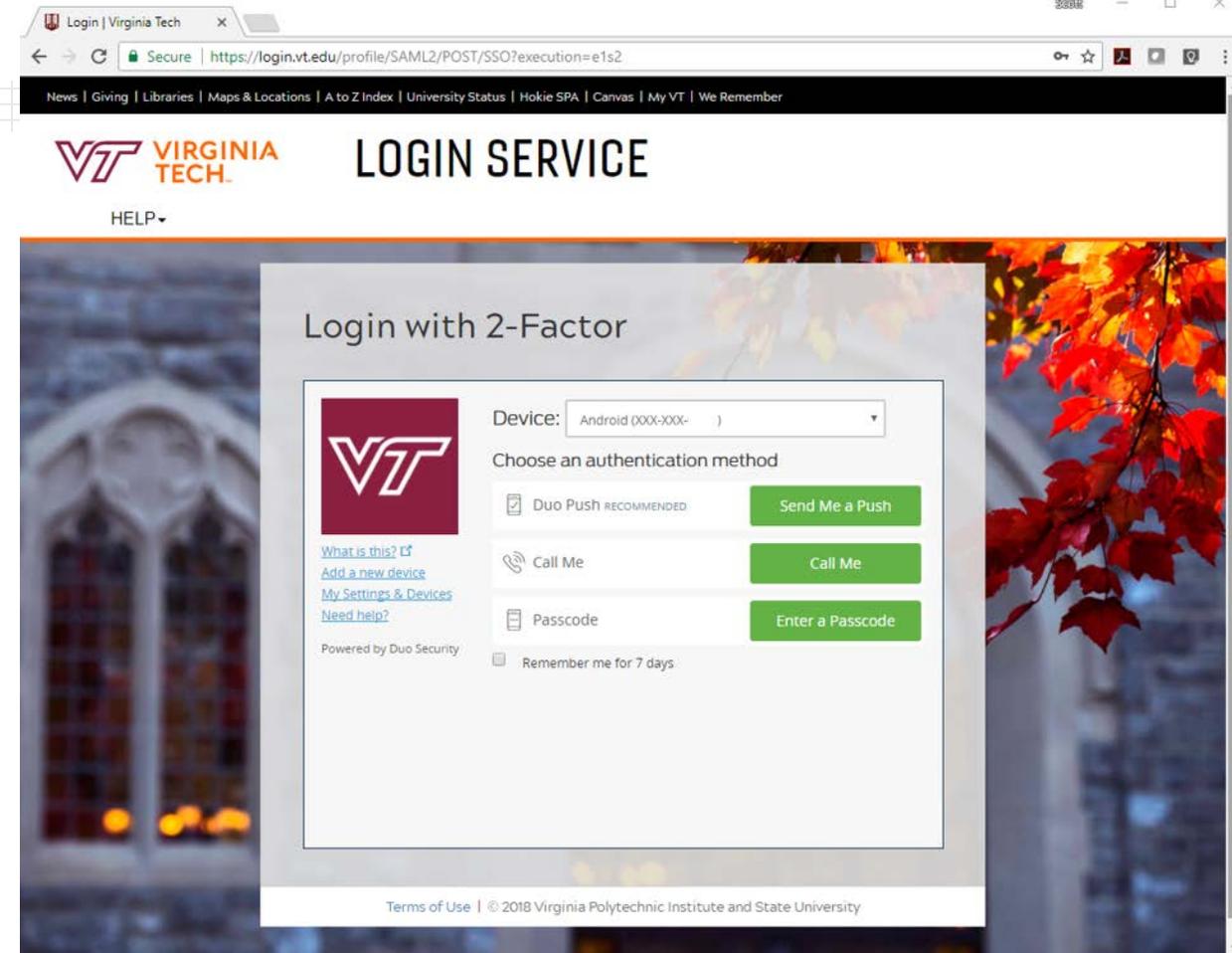
Selected Recent Accomplishments

- Two-factor authentication
- Account creation, securing Google applications
- Central logging service
- Network threat awareness

Security

Two-factor Authentication

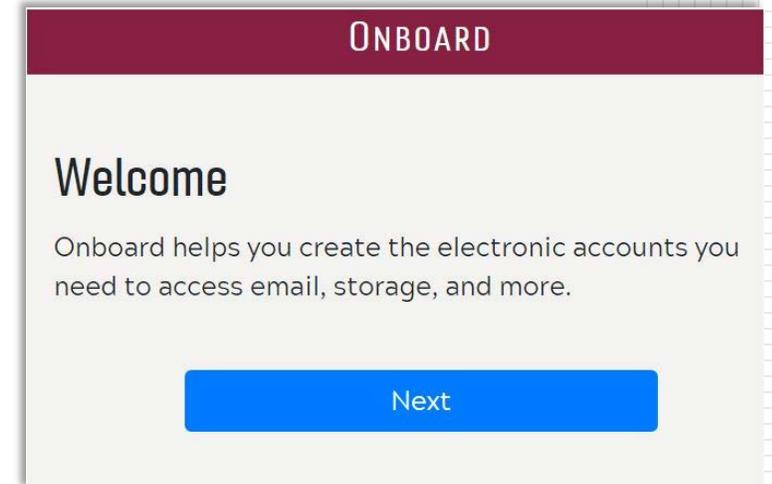
- University-wide deployment
 - Employees
 - Students
 - Alumni and others where they use university services
- Reduction in compromised accounts
- Positioned for compliance



Security

Account Creation, Securing Google Applications

- Two major changes on January 29, 2018
 - Improved account creation process
 - Moving university Google applications (Google Suite) behind our single sign-on service and two-factor authentication
- Significant improvements in security and usability
- Significant change for many users
- Collaborative effort





Security *Central Logging Service*

- **Function**
 - Ingest logging data from network devices, servers, and applications from across the university
 - Store data for operational and forensic analysis
 - Provide monitoring and analysis tools
- **Scale [Fall 2017 data – Update needed]**
 - 3,804 sources
 - 20 different log types
 - 550 gigabytes of data for 750 million events per peak day



Security
Network Threat Awareness

- Re-architecting network threat monitoring infrastructure
- Better support for distributed locations: Blacksburg, NVC, VTRC-A, and VTC
- Increased global awareness
- Reduction in recurring costs with return on investment in just over one year



Key Takeaways



Key Takeaways - 1

- The mission and goals of the Division of IT are to support and enable the mission and goals of the University
 - Teaching and learning
 - Research and innovation
 - Administrative and operational effectiveness
 - Differentiation and competitive advantage

Key Takeaways - 2

- Opportunities and challenges
 - IT is an enabler for innovation in learning, research competitiveness, and effectiveness – resulting in growing opportunities and demands
 - A key challenge is recruiting, retention, and technical and professional development of our workforce
 - Changes in technology and needs require changes in funding models – shifts from “buy” to “subscribe”

Key Takeaways - 3

- Collaboration and coordination – within Virginia Tech and beyond – are key to:
 - Cost-effectively increasing capabilities, and
 - Meeting growing demands for IT services and systems

June 3, 2018

Virginia Tech & Falcon

Partners: University Relations,
Office Of Emergency Management,
Virginia Tech Police, and Athletics



Social Media Management

- **Currently we do not have a shared system for social media management across the university.**
- **We do not have a shared space to monitor analytics across all the university social media platforms.**
- **Units manually monitor and manage various social media in an uncoordinated manner.**
- **Falcon is a robust tool that will allow us to be collaborative, both proactively and reactively.**

Sharing good news

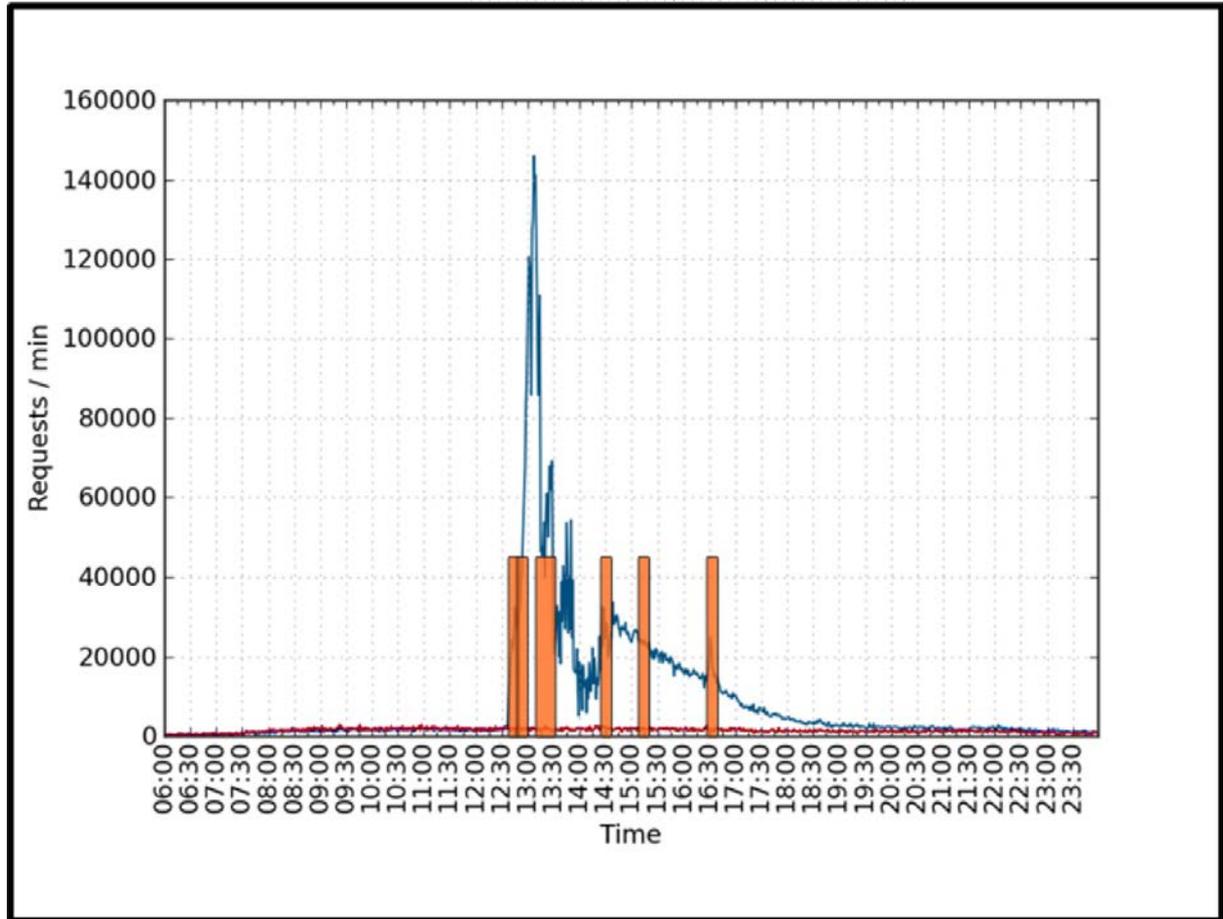
This tool will help with informing our community members about positive news and new university initiatives, such as:

- **VT Alumni showing Ut Prosim around the world**
- **Major gift announcements**
- **Executive hiring announcements**
- **New living-learning communities and student scholarships**

Currently, news and announcements are published on social channels using the separate currently available tools. We engage with our community members on those separate tools and have to aggregate the overall sentiment and reach of the news manually.

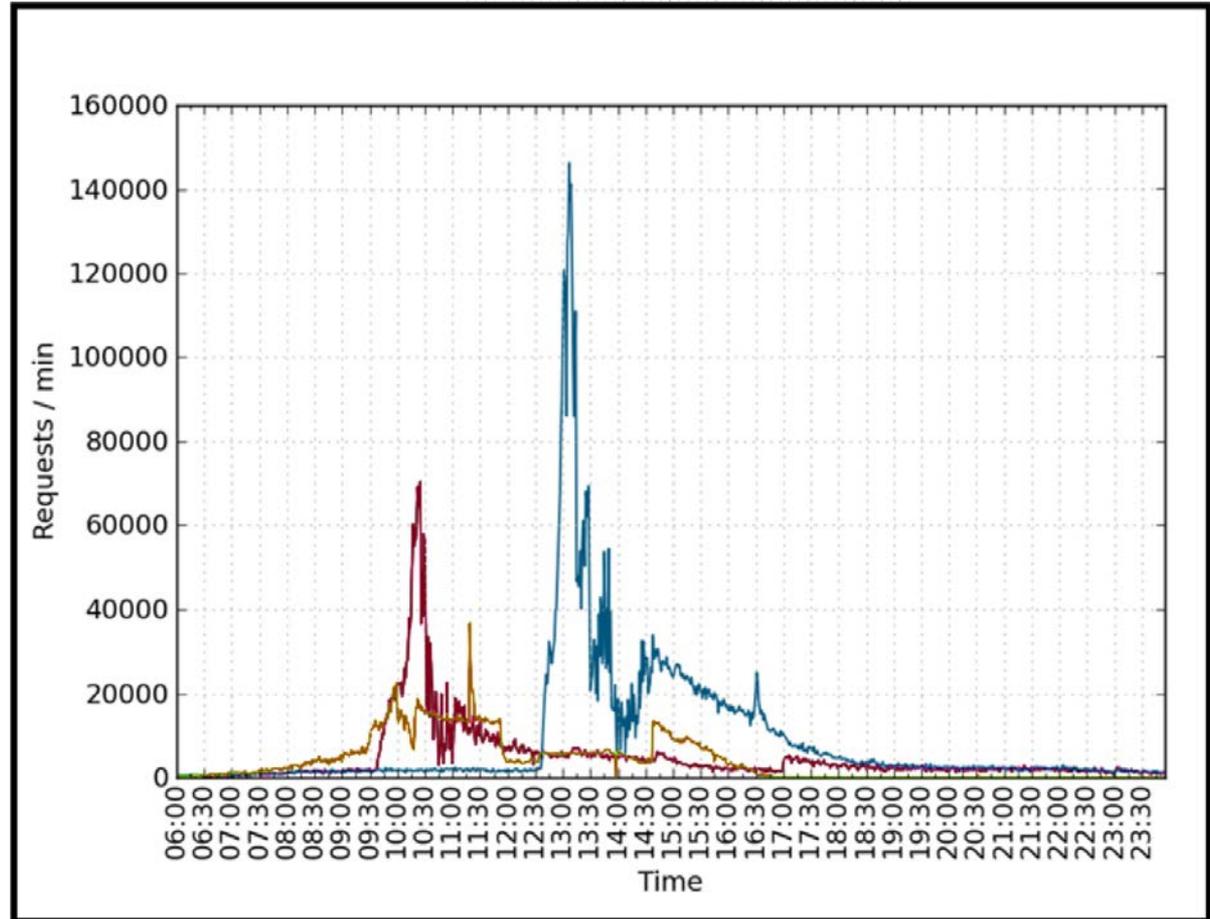
Case study from the Office of Emergency Management

vt.edu Website traffic



Case study from the Office of Emergency Management

vt.edu Website traffic



VTPD Basic Uses for Falcon

VTPD has not had any social media management tools.

Threat Assessment

- Enhance collaboration with University Relations regarding flagged social media posts of concern to public safety
- Minimize email communication and create more efficient work process

Engage

- Monitor specific posts
- Gather multi-platform information to see the social landscape
- Align communicate with other VT Falcon users for appropriate response

Publish

- Scheduled messaging and coordinated effort on safety posts and social media campaigns ahead of time
- Measure and assess effectiveness of posts

Key Takeaways

- **Having a comprehensive social media management tool allows for more efficient and effective work to be done to enhance and defend Virginia Tech's online reputation.**
- **More sophisticated social media monitoring tools can help police, emergency management, and public relations personnel to be more proactive on issues and crisis management.**
- **The insights and analytics gained from a comprehensive tool will allow for better data-driven decision making across many areas of the university.**



VIRGINIA TECH[®]
ATHLETICS

Intercollegiate Athletics report to the
Governance & Administration Committee
of the Board of Visitors

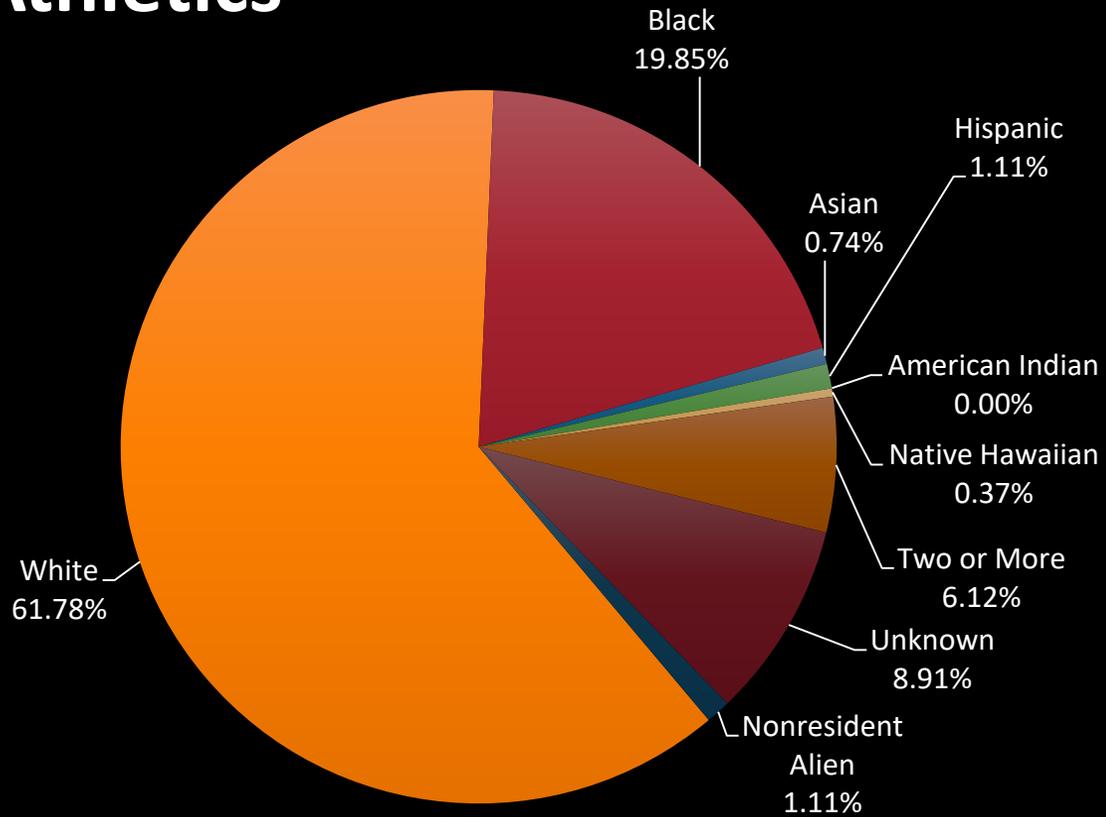
June 3-4, 2018



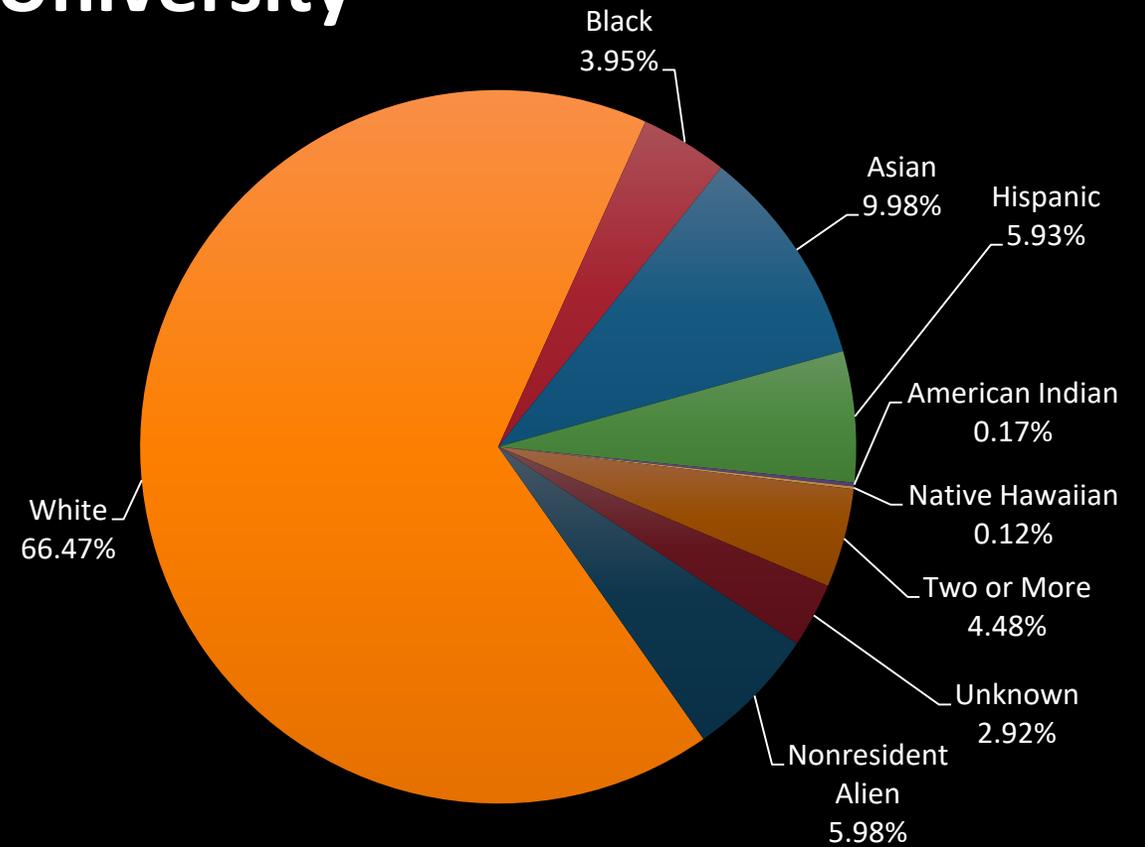
2016-17

539 Total Student-Athletes

Athletics



University

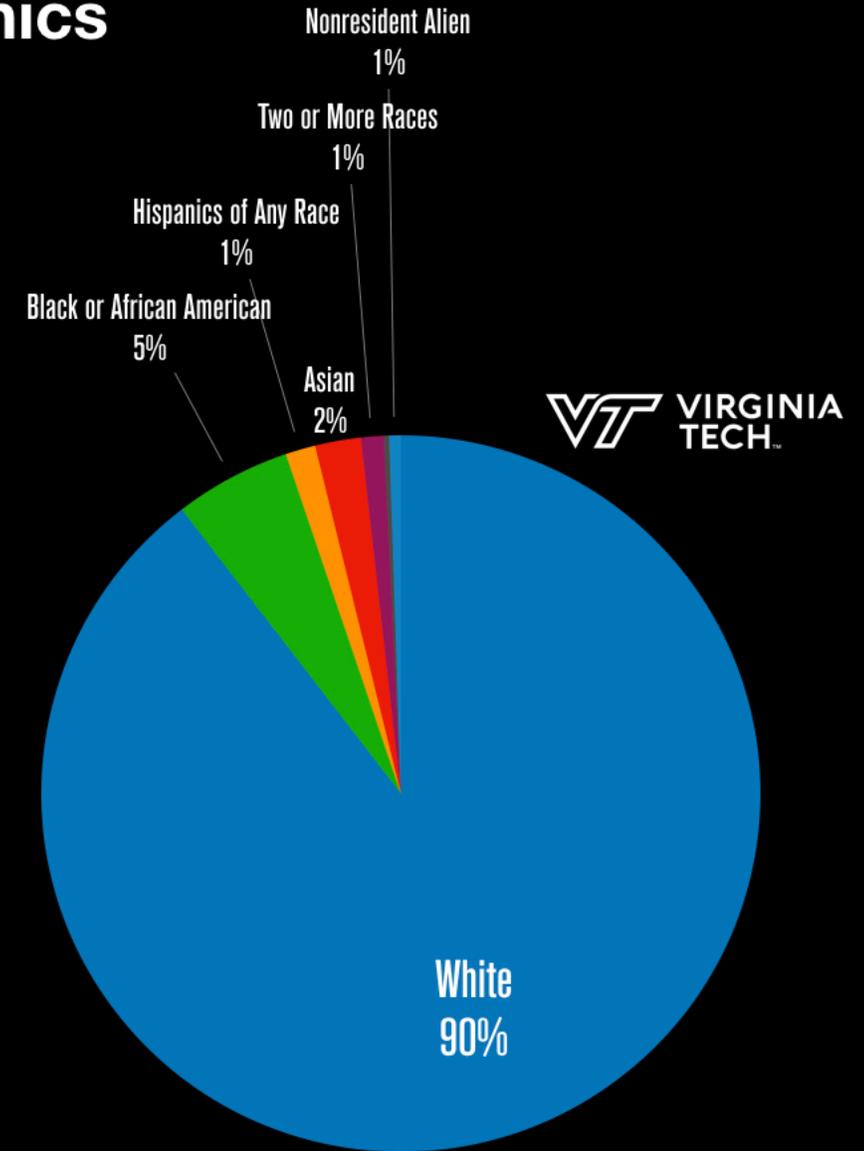
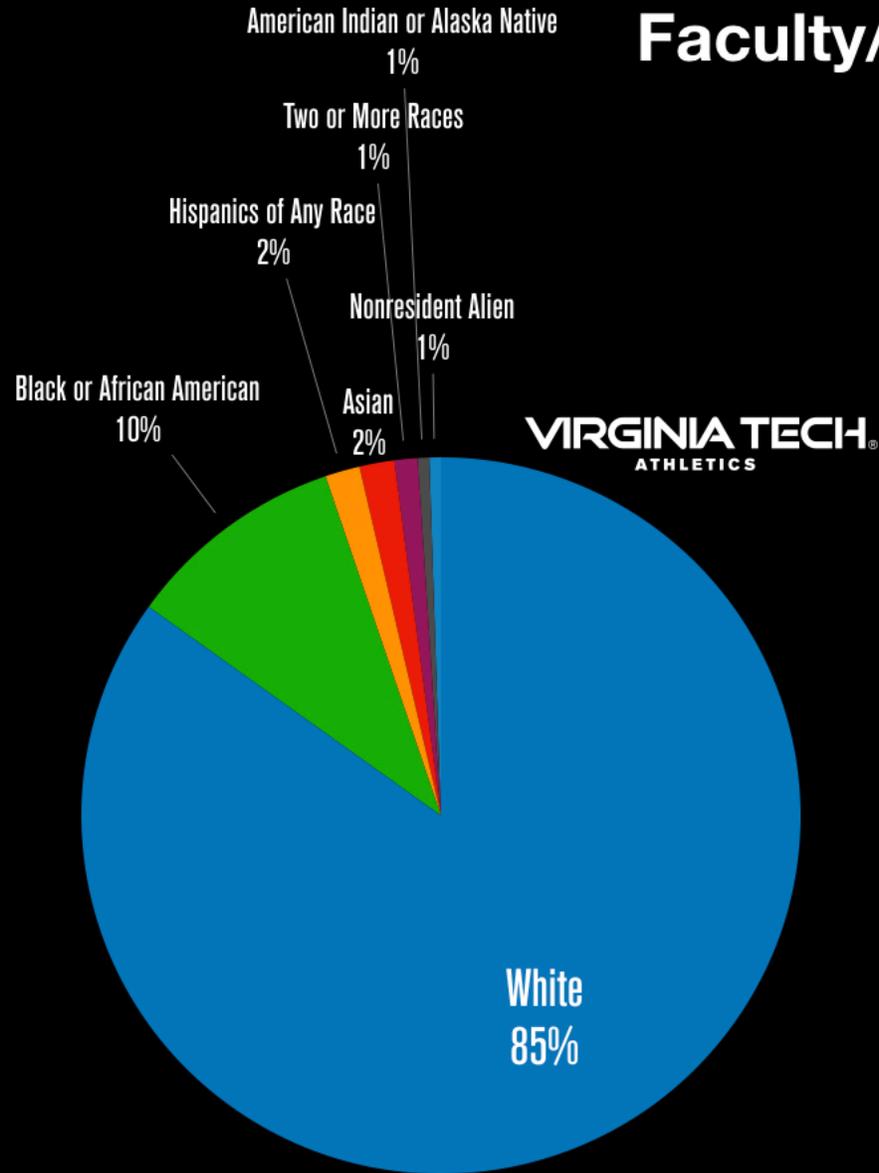


Student-Athlete Demographic Summary

	2012-13	2013-14	2014-15	2015-16	2016-17
White	61.33%	59.49%	61.57%	61.59%	61.78%
Black	16.76%	18.61%	19.03%	18.12%	19.85%
Asian	0.92%	0.55%	0.75%	0.91%	0.74%
Hispanic	0.18%	0.36%	0.19%	1.45%	1.11%
American Indian	0.18%	0.18%	0.19%	0.18%	0.00%
Native Hawaiian	0.00%	0.18%	0.37%	0.36%	0.37%
Two or More	3.13%	3.28%	4.10%	4.53%	6.12%
Unknown	9.58%	16.97%	13.81%	11.23%	8.91%
Nonresident Alien	7.92%	0.36%	0.00%	1.63%	1.11%

2016-17

Faculty/Staff Demographics



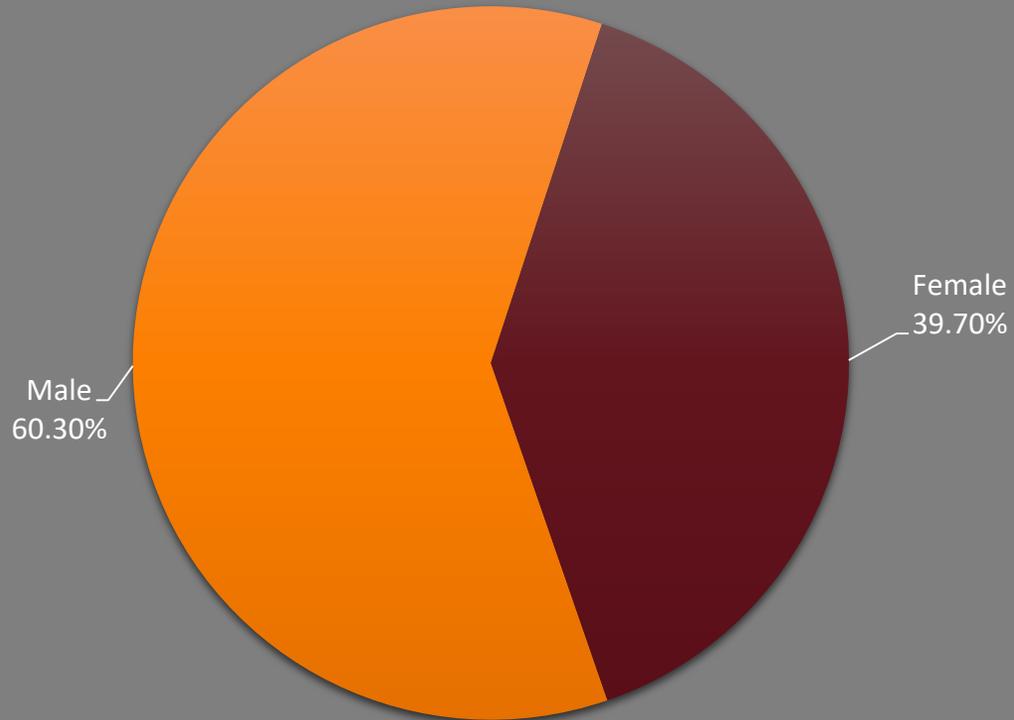
Athletics Demographic Summary

	2013	2014	2015	2016	2017
White	88.89%	86.96%	85.47%	84.90%	83.33%
Black or African American	8.19%	9.24%	10.61%	9.90%	12.22%
Hispanic of Any Race	1.17%	1.63%	1.68%	1.56%	1.67%
Asian	0.58%	0.54%	1.12%	1.56%	1.11%
Two or More Races	0.00%	0.00%	0.00%	1.04%	0.56%
American Indian or Alaska Native	0.58%	0.54%	0.56%	0.52%	0.56%
Nonresident Alien	0.58%	1.09%	0.56%	0.52%	0.56%

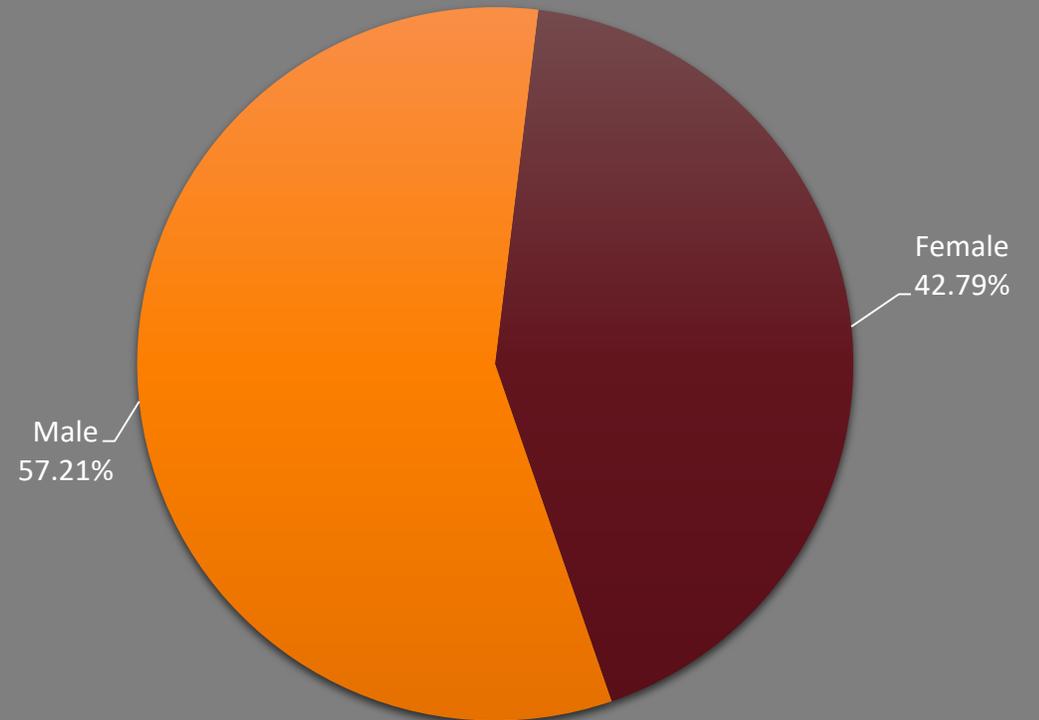
2016-17

Student-Athlete Demographics

Athletics



University



Student-Athlete Demographic Summary

	2012-13	2013-14	2014-15	2015-16	2016-17
	60.41%	62.77%	62.31%	61.41%	60.30%
	39.59%	37.23%	37.69%	38.59%	39.70%

Head Coach Hires 2012 - Present

Lopez Miro (Swimming)

Sung (Lacrosse)

Wilson (Volleyball)

Brooks (Women's
Basketball)

Fuente (Football)

Robertson (Women's Golf)

Szefc (Baseball)

Robie (Wrestling)

Williams (Men's Basketball)

Mason (Baseball)

HIRING PRACTICES: JULY 1, 2017 TO APRIL, 2018 TWENTY-THREE PERCENT OF THE HIRES BELOW ARE FROM UNDER REPRESENTED GROUPS

- ❑ Senior Director, Business and Fiscal Operations
- ❑ Senior Associate AD, External Operations and Engagement
- ❑ Assistant Coach, Baseball
- ❑ Assistant Coach Baseball
- ❑ Director, Operations, Baseball
- ❑ Head Coach, Baseball
- ❑ Director, Sports Medicine
- ❑ Director, Sports Medicine
- ❑ Assistant Coach, Track/Field/Cross Country
- ❑ Director, Student-Athlete Development
- ❑ Senior Associate AD, Internal Operations
- ❑ Assistant Director, S/C Football
- ❑ Assistant Head Coach/Executive Director, Player Development Football
- ❑ Director, Player Development, Football
- ❑ Director, On-Campus Recruiting, Football
- ❑ Head Coach/Director, M/W Swimming/Diving Program
- ❑ Director, Equipment Services, Football

DIVERSITY & INCLUSION INITIATIVES:

- Study Abroad Course – established 2011 (Dominican Republic, Switzerland, Rwanda 2017 & 2018)
- Athletics Diversity and Inclusion Committee established -Spring 2017
- Men's Basketball trip to National Museum of AA History -Summer 2017
- Dr. Menah Pratt-Clarke spoke with Student-Athlete Advisory Committee (10/9/17), men's basketball (11/1/17), women's tennis (11/9/17)
- Collaboration with Black Male Excellence Network (BMEN) and Multicultural Academic Opportunities Program (MAOP)
- Promoting #supportwomenssports in collaboration with Dr. Menah Pratt-Clarke – Spring 2018
- Diversity Newsletter established Feb 2018 – Department-wide resource which provides information and educational opportunities related to inclusion and diversity.
- Financial contribution and participation in the Virginia Tech Uplifting Black Men Conference – February 2018
- Collaboration/sponsorship for Understanding Barriers to Reaching Underserved Populations: Best Practices for Gender-Based Violence Prevention- Feb 2018
- Staff and student-athlete Title IX trainings
- Diversity education at department senior staff meeting (3 meetings - February and March 2018)

DIVERSITY & INCLUSION INITIATIVES:

- Safe Zone Training by various staff (Compliance and Student-Athlete Development)
- Staff participation in Diversity Ally Course through UOPD
- Orientation and onboarding for freshmen and transfer student-athletes
- Representation on SVPC – Sexual Violence Prevention Council
- Title IX Trainings
 - Kelly Oaks @ all department meeting 8.29.17
 - Head Coaches 1.16.18
- Title/VAWA – athletics and university onboarding requirement for all new employees
- Diversity education by Yolanda Avent, Senior Director of Cultural Community Centers and Lacrosse Team 4.6.18
- S.M.A.R.T. – Sexual Misconduct and Relationship Violence Training which discusses issues surrounding alcohol, consent, bystander intervention, retaliation and campus resources.
- One Love – Workshop illustrating the signs and effects of relationship abuse, followed by honest and empowering discussions.

3 KEY POINTS TO TAKE AWAY:

1. We are one of the most diverse units or groups on campus and our Student-Athletes' enhance the entire student body population.
2. We are recruiting in non-traditional high schools in the state of Virginia that Virginia Tech wants more exposure in and access to.
3. We will continue to strive to have staff reflective of our student-athlete demographics/population, thereby making our Department even more dynamic, creative and responsive.



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ATHLETICS

Closing Remarks
Q & A