RADFORD UNIVERSITY

RADFORD UNIVERSITY BOARD OF VISITORS
ACADEMIC AFFAIRS COMMITTEE MEETING
8:30 A.M.
NOVEMBER 10, 2016
BOARD ROOM
THIRD FLOOR-MARTIN HALL
RADFORD, VA

Approved

MINUTES

COMMITTEE MEMBERS PRESENT

Dr. Susan Whealler Johnston, Chair
Mr. Randolph "Randy" J. Marcus, Vice Chair
Ms. Krisha Chachra
Dr. Rachel D. Fowlkes
Ms. Georgia Anne Snyder-Falkinham
Dr. Carter Turner (non-voting, faculty representative)
Mr. Christopher Wade, Rector

OTHER BOARD MEMBERS PRESENT

Ms. Callie M. Dalton
Mr. Kevon DuPree (non-voting, student representative)

OTHERS PRESENT

President Brian O. Hemphill
Dr. Irvin Clark, Interim Vice President for Student Affairs
Mr. Danny M. Kemp, Vice President for Information Technology & Chief Information Officer
Dr. Joe Scartelli, Interim Provost and Vice President for Academic Affairs
Ms. Margaret McManus, University Auditor
Ms. Ashley Schumaker, Chief of Staff, Office of the President
Ms. Melissa Wohlstein, Vice President for University Advancement
Mr. Allen T. Wilson, Assistant Attorney General, Commonwealth of Virginia
Radford University faculty and staff

CALL TO ORDER

Dr. Susan Whealler Johnston, Chair, formally called the meeting to order at 8:32 a.m. in the Board Room, Third Floor-Martin Hall on the campus of Radford University.

APPROVAL OF AGENDA

Dr. Johnston asked for a motion to approve the November 10, 2016 agenda. Ms. Krisha Chachra so moved, and Dr. Rachel D. Fowlkes seconded and the agenda, as published, was unanimously approved.

APPROVAL OF MINUTES

Dr. Johnston asked for a motion to approve the minutes of the September 15, 2016 meeting of the Academic Affairs Committee, as published. Ms. Chachra so moved, Ms. Georgia Ann Synder-Falkinham seconded the motion and the September 15, 2016 minutes were unanimously approved. Available online: http://www.radford.edu/content/bov/home/meetings/minutes.html.

ACTION ITEMS

Dr. Scartelli presented two action items to the committee for consideration to take forward to the full Board. The two items are as follows:

Action Item 1- Proposal for a *Bachelor of Science in Computer and Cyber Science (BSCCS).*
A resolution to approve the proposal for the BSCCS was presented. After discussion regarding the proposal approval process and justification for the program, Dr. Johnston asked for a motion recommending that the Academic Affairs Committee approve the resolution. Dr. Fowlkes so moved, Mr. Randy Marcus seconded and the motion was unanimously approved to forward to the full Board of Visitors consideration. The proposal is attached hereto as ***Attachment A***, and is made a part hereof.

Action Item 2 - Recommendation of Teaching and Research Handbook Changes.
After a brief summary regarding the changes from Dr. Scartelli and Dr. Carter Turner, Chair of the Faculty Senate, Dr. Johnston asked for a motion recommending that the Academic Affairs Committee approve the resolution. Dr. Fowlkes so moved, Mr. Marcus seconded and the motion was unanimously approved to forward to the full Board of Visitors consideration. The Teaching and Research Faculty Handbook amendments are listed below and attached hereto as ***Attachment B***, and is made a part hereof.

Section 1.4.1.4.2: *Evaluation Procedures for Special Purpose, Full-time Temporary, and Part Time Faculty.*
Section 1.4.1.3: *Student Evaluations of Faculty* (content)
Section 1.4.1.3: *Student Evaluations of Faculty* (timeline)
Section 1.4.1.4.1: *Evaluation Procedures for Tenured and Tenure-Track Faculty*

REPORT FROM THE PROVOST

- Report on Accreditation - Dr. Scartelli reported on the Academic Affairs Accreditation Summary as an informational item. The report is attached hereto as ***Attachment C***, and is made a part hereof.
- Emeriti Faculty - Dr. Raymond Linville in the Department of Communication Sciences and Disorders and Dr. Joe Flickinger in the School of Communication were awarded emeriti status this summer and fall. The informational item is attached hereto as ***Attachment D***, and is made a part hereof.
- Career Center Presentation - Dr. Angela Joyner, Executive Director of the Career Center made a presentation on the Career Center. The presentation is attached hereto as ***Attachment E***, and is made a part hereof.

REPORT FROM THE FACULTY SENATE PRESIDENT

Dr. Carter Turner, Faculty Representative for the Faculty Senate, reported on concerns and challenges the faculty are experiencing in making adjustments in their teaching in order to

address student retention. Dr. Turner gave an overview of some of the strategies the Faculty Senate are looking at including mandatory attendance and adjustments in work assignments.

ADJOURNMENT

With no further business to come before the Committee, Dr. Susan Whealler Johnston, Chair, adjourned the meeting at 10:29 a.m.

Respectfully submitted,

Vickie S. Taylor

Vickie Stewart Taylor
Executive Assistant to the Provost

Attachment A

Resolution for Approval of
Bachelor of Science in Computer and Cyber Science

November 11, 2016

WHEREAS, the Department of Information Technology (ITEC) in the College of Science and Technology at Radford University proposes a Bachelor of Science in Computer and Cyber Science (BSCCS); and

WHEREAS, the BSCCS will build upon and extend the department's highly successful computer science degree and the undergraduate certificate in information security; and

WHEREAS, the proposed BSCCS program will prepare the next generation of security professionals; and

WHEREAS, the BSCCS program will provide a well-rounded curriculum by combining foundational computer science courses with security courses from the undergraduate certificate and new courses in reverse engineering and embedded device security; and

WHEREAS, student interest, alumni recommendations, and employment projections support the establishment of the BSCCS degree;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Visitors approves the program for the Bachelor of Science in Computer and Cyber Science, CIP 11.1003 (hereafter "Program"); and be it further

RESOLVED, that the President and/or his designee(s) are hereby authorized to submit any and all documentation that may be required to receive approval of said program from the State Council of Higher Education of Virginia (SCHEV) and the Southern Association of Colleges and Schools Commission on Colleges.

To: Dr. Joe Scartelli, Provost and Vice President for Academic Affairs
Radford University

From: Orion Rogers, Dean
College of Science and Technology

Date: August 15, 2016

Re: Executive Summary of Proposed B.S. in Computer and Cyber Science

Introduction

The Department of Information Technology in the College of Science and Technology proposes to establish a Bachelor of Science in Computer and Cyber Science (BSCCS). The proposed degree focuses on cybersecurity and the vast array of foundational information technology and computer science topics needed for cybersecurity. Radford will become the second public university (the other being Old Dominion) with an undergraduate degree in in this field. The proposed BS degree will build upon the courses developed and taught in the Department's highly successful undergraduate certificate in information security. BSCCS will develop specialized competencies and skills to prepare graduates for entry-level careers in cybersecurity.

Security professionals constantly face new challenges in a rapidly evolving world. Increasingly sophisticated attacks force organizations to secure every aspect of their business from training personnel to hardening computing, networking, and data infrastructures. Bring your own device and the Internet of Things complicate security further. Many organizations are lowering costs with highly efficient, wireless accessible smart systems like HVAC. Protecting these systems requires security professionals with knowledge of embedded electronic devices. Traditional computer science degrees do not provide the breadth and depth of knowledge required to architect, develop, deploy, troubleshoot, plan, and manage security. The proposed BSCCS program will prepare the next generation of security professionals.

Justification

Computer science professionals with a deep understanding of cybersecurity are in high demand, especially those with an undergraduate degree in cybersecurity. According to Burning Glass' research, postings for cybersecurity jobs have grown 91 percent from 2010 to 2014. This growth rate is over three times faster than all Information Technology (IT) jobs. Furthermore, the Burning Glass Job Market Intelligence Report 2015[1] states that over 61 percent of the jobs require a B.S. degree or higher. This mirrors a similar conclusion by the Virginia Employment Commission and

[1] http://burning-glass.com/wp-content/uploads/Cybersecurity_Jobs_Report_2015.pdf

the U.S. Bureau of Labor Statistics (2012-2022) that cybersecurity entry-level jobs require a bachelor's degree.

Traditionally, cybersecurity has been taught as a set of courses in a Computer Science or IT bachelor's degree programs. However, the required skillset for security professionals is greatly expanding, thereby prompting the need for a dedicated degree program. Specifically, as cyber attacks become increasingly sophisticated and target new domains, such as the Internet of Things, a traditional bachelor's degree in computer science is insufficient to prepare for graduates to defend corporations and the nation. Well-rounded security professionals must possess:

(a) A strong background in the vast fundamental computing principles of cybersecurity such as: operating systems, networks, coding and discrete mathematics;
(b) Skills to design, code, deploy and administer security solutions based on knowledge of software, data and network security, and cryptography; and
(c) Knowledge of computer and embedded device architectures to design and troubleshoot security issues with emerging non-traditional computational devices, such as smart devices used in homes and corporations.

The BSCCS program will provide a well-rounded curriculum by combining foundational computer science courses with security courses from the undergraduate certificate and new courses in reverse engineering and embedded device security.

Current Support for Cybersecurity

BSCCS builds upon and extends the Department's highly successful computer science degree and the undergraduate certificate in information security. Furthermore, Radford University is building a reputation for its strong cybersecurity education as indicated by the following accomplishments:

(a) The National Security Agency (NSA) and the Department of Homeland Security (DHS) designated Radford University as a National Center for Academic Excellence in Cyber Defense Education for 2016-2021.
(b) Radford University's Cyber Defense Club, a club consisting of students pursuing security courses, has consistently placed in the regionals of the National Collegiate Cyber Defense Contest (reaching the regionals four out of the last five years). Only eight out of a total of approximately 31 colleges in the mid-Atlantic region qualify for the regionals each year. Radford is the only public university in Virginia to do so consistently over the last five years.
(c) Strong, well-established K-12 outreach to increase the pipeline of potential majors in cybersecurity into Radford University. This outreach, supported since 2013 through four yearly competitive grants from the NSA, has reached a network of over 30 public schools and governor's schools and five community colleges across Virginia. The outreach includes curriculum and course materials for high school students in cybersecurity, as well as training K-14 teachers to incorporate cybersecurity into their curriculum. This outreach

program has received prominence at national forums, such as the NIST sponsored National K-12 cybersecurity education conference where Radford University was the co-chair for the high school cybersecurity education outreach program.

(d) Membership in national/federal advisory groups: Radford University has a working membership to set the national agenda in cybersecurity education through the National Initiative for Cybersecurity Education (NICE) Working Group (especially K12) – initiated at the National Institute for Standards and Technology (NIST).

Employment Demand

The employment demand for cybersecurity professionals, including graduates from programs such as the BSCCS, cannot be overstated. The National Initiative for Cybersecurity Education (NICE) group at the National Institute of Standards and Technology (NIST), published a report (based on research by Burning Glass, the Bureau of Labor Statistics, and CompTIA) stating that *"cybersecurity jobs are in high and growing demand and that a critical shortage of qualified workers exists across the nation. Specifically, according to Burning Glass' research, postings for cybersecurity jobs have grown 91 percent from 2010 to 2014. This growth rate is over three times faster than all Information Technology (IT) jobs."* The Bureau of Labor Statistics Occupational Outlook Handbook[2] indicates the job outlook for 2014-24 is expected to be 18 percent, faster than average. The demand hits close to home: according to the *Burning Glass Job Market Intelligence Report 2015*[3] the Commonwealth of Virginia currently ranks second in the country in total job postings in cybersecurity. In fact, Governor Terry McAuliffe's Executive Order 8, issued in February 2015, stated that almost 17,000 jobs in cybersecurity are unfilled. Further, according to the Burning Glass research report, employers are demanding more education or experience for these cybersecurity jobs with almost 61 percent of the jobs requiring a BS degree. Data from the Virginia Employment Commission and the U.S. Bureau of Labor Statistics (2012-2022) leads to a similar conclusion: a bachelor's degree or higher is typically required for entry-level jobs.

Projected Resource Needs

The BSCCS program is expected to incur modest start-up and maintenance costs as the program will leverage, to the extent possible, existing resources available to the Department. For the 2016-17 academic year, the Department converted an open Special Purpose position into a full-time temporary position. This position must be filled permanently with an experienced cybersecurity professional. Because this is a spin-off program, no additional faculty are needed to initiate the program. Additional faculty may be needed as enrollment increases. Existing hardware, software, and student laboratories are sufficient to initiate the program with future increases based on enrollment growth. The existing cybersecurity program currently incurs approximately $5,000 per year. Funding for this expense comes from external grants with supplements as needed from the

[2] http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm
[3] http://burning-glass.com/wp-content/uploads/Cybersecurity_Jobs_Report_2015.pdf

Department and College budgets. This cost must be institutionalized to sustain the BSCCS program.

Summary

If approved, the proposed BSCCS will be one of only two undergraduate programs in Virginia to develop the highly competent professionals needed to meet the growing demand for cybersecurity professionals. The NSA/DHS designated Center for Academic Excellence and the robust K-12 outreach program will attract highly qualified students. The existing undergraduate certificate in cybersecurity, the award-winning cyber defense club, and emphasis on practical, hands-on experience will ensure that students develop the knowledge, skills, and experience that industry and federal agencies need. Extensive engagement with corporate partners across the state will expose students to career opportunities and retain graduates within the Commonwealth. Student interest, alumni recommendations, and employment projections support the establishment of the Bachelor of Science in Computer and Cyber Science degree.

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA

1. Institution	2. Program action (Check one): New program proposal _____ Spin-off proposal _____ Certificate proposal _____
3. Title of proposed program	4. CIP code
5. Degree designation	6. Term and year of initiation
7a. For a proposed spin-off, title and degree designation of existing degree program 7b. CIP code (existing program)	
8. Term and year of first graduates	9. Date approved by Board of Visitors
10. For community colleges: date approved by local board date approved by State Board for Community Colleges	
11. If collaborative or joint program, identify collaborating institution(s) and attach letter(s) of intent/support from corresponding chief academic officers(s)	
12. Location of program within institution (complete for every level, as appropriate). Department(s) or division of _____ School(s) or college(s) of _____ Campus(es) or off-campus site(s) _____ Distance Delivery (web-based, satellite, etc.) _____	

13. Name, title, telephone number, and e-mail address of person(s) other than the institution's chief academic officer who may be contacted by or may be expected to contact Council staff regarding this program proposal.

Bachelor of Science in Computer and Cyber Science

Description of Program

Program Background

The Department of Information Technology in the College of Science and Technology at Radford University proposes a Bachelor of Science in Computer and Cyber Science (BSCCS) to begin in the Fall 2017. BSCCS builds on the Department's Bachelor of Science in Computer Science and undergraduate Information Security Certificate and creates a new program to prepare students to work in the emerging field of cybersecurity, developing, deploying, and managing security solutions for different computing infrastructures. The program will be initiated as a traditional in class program taught on the Radford University campus.

In addition to teaching traditional computer science concepts and principles, the BSCCS program will teach students: basic principles and concepts of information security; how to secure databases, operating systems, and computing systems; how to apply cryptography to secure data traveling across a network; basic principles of digital forensics; techniques to reverse engineer, analyze, and investigate computer systems; and how to develop policies and procedures to protect and govern information and maintain data quality and integrity.

In the past, a BS in Computer Science or Information Technology (IT) with a course in cybersecurity would have prepared students for these jobs. However, as the Internet of Things (IoTs) becomes more commonplace, so have the range of cybersecurity threats that target non-traditional computing platforms. Designing, developing, and deploying solutions for these threats requires traditional computer science skills, along with a deep emphasis on their application. This requires courses in areas such as: reverse engineering and security analysis. For instance, research from IBM in 2013 found out: "*there is more to teach and learn"* as the *"field of cybersecurity has significantly expanded with more domains to secure and more ways to attack"*[1]. The report concludes with the need to expand cybersecurity learning into areas such as: protection of "*heterogeneous systems and real-time security analysis".* To accommodate this applied nature of computer science, there is a need for a separate BS program that covers the vast field of cybersecurity and the wide array of foundational computer science/IT topics that cybersecurity builds on.

BSCCS will prepare graduates for entry-level positions in the cybersecurity field. These entry level positions include: engineers, managers/administrators, analysts, information security specialists/technicians, architects, and consultants[2].

[1] Cybersecurity Education For the Next Generation, Advancing a Collaborative Approach, IBM Center for Applied Analytics, 2013 (http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=XB&infotype=PM&appname=CHQE_ED_ED_USEN&htmlfid=EDE12345USEN&attachment=EDE12345USEN.PDF)

[2] http://burning-glass.com/wp-content/uploads/Cybersecurity_Jobs_Report_2015.pdf

Engineers architect and develop security solutions for computing infrastructures. They are involved in secure design and coding of software, developing secure configurations/architecture, engineering cryptographic solutions, or analyzing network protocols for security issues.

Data, information and network security managers or administrators deploy and manage security solutions and troubleshoot issues, respond to intrusions, and/or perform security planning including developing security policies and procedures.

Architects, including security architects and network architects, develop and deploy secure configurations of network based computing infrastructure. Security consultants, such as network security consultants and infrastructure security consultants, deploy, debug, and perform security analysis of computing infrastructures. Their tasks also include malware analysis and intrusion handling. Security or information assurance analysts, perform risk management and assessment, audit planning, identify security threats, vulnerabilities and potential exploits, conduct penetration tests, and/or ensure legal compliance.

The program will develop the necessary skillsets for these jobs by covering a vast array of foundational topics such as: coding, operating systems, computer architecture, and networks, as well as the broad area of cybersecurity including: secure system design and implementation, risk assessment, security and systems analysis, security administration, security planning, intrusion detection, and digital forensics. BSCCS will accomplish this by building on the existing BS in Computer Science program.

The BSCCS will provide students the technical foundation to work in public and private organizations protecting the data, software, and hardware resources from criminal and espionage activities. The students will also learn the foundational issues with policy and procedures necessary for organizations to ensure the safe handling of data and management of resources.

Mission

BSCCS will contribute to the Commonwealth of Virginia and the nation by preparing students for careers in the cybersecurity field. These goals are entirely congruent with the mission of Radford University:

> Radford University serves the Commonwealth of Virginia and the nation through a wide range of academic, cultural, human service, and research programs. First and foremost, the university emphasizes teaching and learning and the process of learning in its commitment to the development of mature, responsible, well-educated citizens. RU develops students' creative and critical thinking skills, teaches students to analyze problems and implement solutions, helps students discover their leadership styles, and fosters their growth as leaders. Toward these ends, the university is student-focused and promotes a sense of caring and meaningful interaction among all members of the University community. Research is viewed as a vital corollary to the teaching and learning transaction as it sustains and enhances the ability to teach effectively. Radford University believes in the dynamics of change and has a strong commitment to continuous review, evaluation, and improvement in the curriculum and all aspects of the University, so as to meet the changing needs of society (Radford University, 2013).

BSCCS directly supports Radford University's mission by:

1. Emphasizing teaching and learning through hands-on projects that require meaningful interaction with faculty and industry partners.
2. Cultivating creative and critical thinking to analyze problems and implement solutions.
3. Developing technical skills that will benefit employers and the IT discipline.
4. Creating high impact learning opportunities for undergraduates through project and research opportunities.

Admissions Criteria

Freshmen applicants to Radford University must submit the following:

1. Application form
2. Official transcript of high school work completed (must have completed Algebra 2)
3. Official copy of SAT or ACT score report (students with a 3.50 GPA on a 4.0 scale may elect to be considered for admissions without submitting either an SAT or ACT score)
4. International students must either take the SAT or TOEFL to prove competency in the English language (minimum TOEFL scores are 520 for paper based, 190 for computer-based or 68 or higher for Internet-based).

The BSCCS will have no additional admissions requirements beyond the requirements for admission to Radford University.

Target Population

The target populations for the BSCCS are students seeking to complete a bachelor level degree to enter the cybersecurity field in entry-level positions. Since Radford University primarily serves residents of Virginia, the majority of the students will likely be graduates from a Virginia high school or students who have completed classes in the Virginia Community College System.

Given the exceptionally high demand for cybersecurity in Virginia, the state is actively working to increase the pipeline of K12 students pursuing cybersecurity. In February 2014, the Governor of Virginia passed Executive Order 8 to establish Cyber Virginia and the Virginia Cybersecurity Commission to support activities that increase the pipeline of students from K12 for cyber-security majors at the college/university level. Sample activities include: developing security curriculum and conducting summer camps in cybersecurity. Beginning in 2013[3], the Department of Information Technology at Radford University initiated several outreach activities to boost the K12 pipeline in cybersecurity with support from five grants from the National Security Agency (NSA).

Student recruiting for the proposed BSCCS will leverage the outreach activities described above, along with the strengths of the University and additional outreach activities including:

5. Radford University is a National Security Agency(NSA)/Dept. of Homeland Security (DHS) designated National Center for Academic Excellence (CAE) in Cyber Defense Education. Among the many benefits, the CAE designation affords Radford national recognition and visibility from its prominent listing on the NSA/DHS websites. Further, this designation recognizes the rigor and high quality of Radford's computer science and security offerings – making the University attractive to prospective students.
6. Radford University faculty are members of the National Initiative for Cybersecurity Education (NICE) group created by the federal organization National Institute of

Standards and Technology (NIST). Radford faculty are active on the NICE K12 working group for cybersecurity education and regularly serve on national panels on K12 cybersecurity education. For instance, they chaired panels at the National K12 CyberSecurity Conference in Linthicum, Maryland in 2015[3,4] and are doing so in 2016. The audience for these panels and work groups are K12/community college educators and decision makers. Recruitment efforts will include tapping this network to participate in Radford's outreach activities for recruitment.

7. K12 Cybersecurity outreach projects: With support from five grants from the National Security Agency (NSA) since 2013, Radford University developed a comprehensive two-tiered outreach program to increase the pipeline for cybersecurity at K12. This includes a motivational curriculum for K12 in security and teacher training to educators across Virginia. Some key outcomes of these activities include:
    a) An annual cyber defense contest called *RUSecure?:* First conducted in Spring 2014, this contest is now drawing around 90 high school students from across Virginia's public schools each year. In 2016, the NSA awarded Radford University a grant to fund the prizes for this competition, thereby increasing the number of students the competition can support.
    b) High school level cybersecurity course (ITEC 145) offered to students online: First offered in Spring 2015 (and offered every semester after that), this course has drawn over 25 students each semester from high schools, specifically: Radford City High School, Christiansburg High School, Blue Ridge Virtual Virginia Governor's School, Shenandoah Valley Governor's School, Southwest Virginia Governor's School, and Piedmont Governor's School. As a next step, the project proposes to make the course materials and lab resources available across Virginia through collaborations with community colleges.
    c) Graduate level K12 teacher training course (ITEC 545): First offered in Spring 2016, over 44 teachers from 41 schools/community colleges across Virginia have either taken (in Spring 2016) or are currently taking (in Fall 2016) this course. This course equips teachers with the tools needed to start cybersecurity curriculum in their schools. In fact, most of these teachers are taking this course as they prepare to develop and introduce a cybersecurity curriculum in their respective school districts. Two NSA grants provided partial funding for this effort.
    d) Community College outreach: Radford University is assisting regional community colleges (Virginia Western Community College and Virginia Highlands Community College) to develop cybersecurity curriculum in their colleges and meet the guidelines specified in Executive Order 8. Using this

[3] Uppuluri. P, Panelist, Higher Education outreach efforts, National K12 Cybersecurity Education Conference, Linthicum, MD
2015 (https://www.youtube.com/watch?v=yTnHHwI3D48)

[4] Uppuluri. P, Panelist, Higher Education efforts: prepping for cyber defense competitions, National K12 Cybersecurity Education Conference, Linthicum, MD 2015 [VIDEO]

collaboration as a template, Radford University is also developing a transfer guide for VCCS students to transfer to the proposed BSCCS program.

e) Summer Bridge for High School students in cybersecurity: This program is conducted annually and draws female students from high schools, thereby providing an opportunity to participate in university level cybersecurity exercises for a week. Since 2009, around 25 female high school students have taken part in this exercise annually. In Summer 2016, part of this effort was funded with an NSA grant.

The outreach activities described above have enabled Radford University to establish a large network of collaborators in cybersecurity at the K12/community college level. We propose to tap into this network and continue these activities to attract students to the BSCCS program.

Curriculum

The proposed bachelor program is a spin-off degree from the Department's current computer science degree. The program will combine the University's CORE curriculum, core courses from the Department of Information Technology, courses from the Information Security Certificate, and newly developed courses to create a new 120-credit hour bachelor degree.

The table below provides a side-by-side comparison of the existing BS in computer science program (BSCS) and the proposed BSCCS program. The primary difference between these two programs is the additional 12 hours of cybersecurity education required by the proposed degree.

To graduate, all students must have a minimum overall 2.0 GPA and a minimum 2.0 in-major GPA. Students must complete the required courses and the necessary elective hours (free electives) from any university course to total 120 credit hours.

Current BSCS Program	
Core Curriculum (43-45 credits):	
Univ. Core A:Core Foundation	12
Univ. B-Core Skills and Knowledge	16
College Core A-National and International Perspectives	6
College Core B-Supporting Skills and Knowledge	9-11
Department of Information Technology core requirements (18 credits):	
ITEC 110 - Principles of Information Technology	3
ITEC 120 - Principles of Computer Science I	4

Proposed BSCCS Program	
Core Curriculum (43-45 credits):	
Univ. Core A:Core Foundation	12
Univ. B-Core Skills and Knowledge	16
College Core A-National and International Perspectives	6
College Core B-Supporting Skills and Knowledge	9-11
Department of Information Technology core requirements (18 credits):	
ITEC 110 - Principles of Information Technology	3
ITEC 120 - Principles of Computer Science I	4

ITEC 220 - Principles of Computer Science II	4	ITEC 220 - Principles of Computer Science II	4
ITEC 225 - Web Programming I	3	ITEC 225 - Web Programming I	3
ITEC 345 - Introduction to Information Security	3	ITEC 345 - Introduction to Information Security	3
ITEC 490 - IT Professionalism	1	ITEC 490 - IT Professionalism	1
Mathematics requirements (12 credits)		*Mathematics requirements (12 credits)*	
MATH 151 – Calculus and Analytic Geometry I	3	MATH 151 – Calculus and Analytic Geometry I	3
MATH 152 – Calculus and Analytic Geometry II	3	MATH 152 – Calculus and Analytic Geometry II	3
MATH 251-Calculus and Analytic Geometry III	3	STAT 200 or 301 – Probability and Statistics	3
STAT 301 – Probability and Statistics	3	ITEC 122: Discrete Mathematics	3
Bachelor of Science requirements		*Bachelor of Science requirements*	
Students must choose two courses from the following list: ASTR 111:ASTR 112; any Biology (except BIOL 301:BIOL 302); any Chemistry; any Geology (except GEOL 110, 205); any Physics (except PHYS 111:PHYS 112 and PHYS 221:PHYS 222 or PHYS 231); PHSC 301.	6-8	Students must choose any one course from the following list: any 500 or 600-level ITEC course approved by the Department Chair; MATH 152; ASTR 111, ASTR 112, any Biology (except BIOL 301 and BIOL 302); any Chemistry; any Geology (except GEOL 110 and 205), any Physics, or PHSC 301; CRJU 412	6-8
Information Technology core (27 credits):		*Information Technology core (27 credits):*	
ITEC 122 – Discrete Mathematics	3	ITEC 310: C& UNIX	3
ITEC 320-Procedural Analysis and Design	3	ITEC 340 – Database Management Systems	3
ITEC 324 – Principles of Computer Science III	3	ITEC 350 – Computer Networking	3
		ITEC 352 – Computer Organization	3
ITEC 352 – Computer Organization	3	ITEC 371 – Operating Systems	3
ITEC 360-Data Structures and Analysis of Algorithms	3	ITEC 445 – Computer System and Database Security	3
ITEC 370-Software Engineering	3	ITEC 455 – Applied Cryptography	3
ITEC 371 – Operating Systems	3	and Network Security	
ITEC 380-Organization of Programming Languages	3	ITEC 465 –Computer System Security Analysis and Investigation Techniques	3

ITEC 420-Computatbility Theory and Formal Languages	3	ITEC 466 – Information Assurance Program Management	3
Restricted Electives (one of the following courses) (3 credits)		*Restricted Electives (one of the following courses) (3 credits)*	
ITEC 315 – Graphical User Interface Design and Implementation	3	ITEC 360 – Data Structures and Analysis of Algorithms	3
ITEC 340-Database	3	ITEC 420 – Theory of Computation	3
ITEC 350-Introduction to Computer Networking	3	ITEC 370 – Software Engineering	3
ITEC 410-Modelling and Simulation	3	ITEC 460-Translator Design and Construction	3
ITEC 430-Computer Graphics	3		
ITEC 460-Translator Design and Construction	3	Any MATH 400 level course	3
ITEC 480-Artificial Intelligence	3	*Other required courses (3 credits)*	
Physics (7 credits)		BLAW 203: Business Law 1	3
PHYS 221-Physics	4		
PHYS 221-Physics	3		

Student Retention and Continuation Plan

Our student retention and continuation plan is to engage students in and out of the classroom through advising, active learning, and interaction with faculty.

Advising
The highest quality education requires effective feedback, guidance, and mentoring from dedicated faculty members. All students will be assigned to an undergraduate faculty advisor who will meet with the students at least once per semester to review student progress, discuss academic issues, and plan future course work for the student. Advisors will also guide students on elective courses and career options.

Active Learning
Classes in the Department of Information Technology balance theory with practice. Necessary theoretical background, concepts, and fundamentals are reinforced with hands-on learning experiences. Many courses utilize a flipped or hybrid delivery model providing online content accessed outside of class to maximize the amount of in-class time devoted to active problem solving and faculty/student interaction.

Interaction
Student interaction with faculty and professionals in the field is a key component of a student's education. Interactions create relationships that provide students encouragement and a support system to envision and implement their academic plans. Our program facilitates these types of

interactions by maintaining a small student to faculty ratio in Department classes, student clubs and organizations, one-on-one advising, independent studies, and student competition teams sponsored by the Department. The Department hosts the award winning Cyber Defense Club (CDC), along with the ACM Student Association and the Upsilon-Pi-Epsilon (UPE) Honors Society. Students in the CDC have regularly participated in several national level competitions and achieved great success including:

1. Qualifying (8 out of 30 colleges) for the Mid-Atlantic Collegiate Cyber Defense Contest in four of the last five years – the only public college/University in Virginia to do so; and
2. Placing in the top 100 of the individual student contest – the National Cyber League, out of over 1,500 students in the past three years.

The Cyber Defense Club attracts students from different majors including freshman. Since its start in 2012, the club has been very active organizing weekly events, inviting presentations from distinguished speakers, helping students get comfortable with computing environments, organizing socials, and travelling to various security conferences.

Faculty

The Department of Information Technology has 17 full-time faculty positions, 13 of which are tenure-track positions. Every member of the Department's faculty has earned a master's or a doctorate degree in an information technology field that contributes deep skills, knowledge, and expertise in the core areas of the Department's programs. A minimum of four or five faculty members are well qualified to teach the core courses. Nine of the Department's 17 faculty members have extensive educational and work experience in computer science and areas related to cybersecurity (e.g., networking, operating systems, database, and coding). These nine faculty members will be the primary instructors in the core cybersecurity classes. Additional faculty members are available to teach BSCCS courses.

The Department does not request any new faculty positions to initiate the program. Additional faculty may be needed based on increased enrollment.

Program Administration

The program will be housed within the Department of Information Technology. The Department Chair will be responsible for scheduling classes, providing required resources, and ensuring sufficient faculty are available with the required expertise to teach the required and selected elective classes. The chair may appoint a program director from the Department faculty to assist in administrative tasks associated with the program if necessary. The program director would have no credentials beyond those required to teach classes in the program.

Student Assessment

Students will be assessed using various instruments including (but not limited to): projects, homework assignments, lab exercises, presentations, reports, quizzes, and examinations. The Department will collect samples of student work for assessment. Assessment will follow the three year ABET lifecycle that the current BS in Computer Science and Technology program follows. As part of this assessment each course will be assessed to determine if it meets the learning outcomes once every three years.

In addition to gaining core competency in computer science, graduates of the program will be able to:

1. Identify threats, vulnerabilities, and attacks on computer based systems of varying complexity and sizes.
2. Apply physical, administrative, and technological security controls include secure coding, secure design principles, and secure operations in the development and installation of software and networking systems.
3. Reverse engineer and detect malware for various computer architectures such as: x86 and embedded devices.
4. Acquire and apply effective communication techniques and strategies appropriate to the field.
5. Conduct risk assessment and perform risk management.

The curriculum emphasizes strong theory complemented with hands-on application to achieve the learning outcomes below. Graduates of the program will have gained competency in the following learning outcomes:

1. An ability to apply knowledge of computing and mathematics appropriate to the area of computer science and/or security.
2. Ability to analyze a problem and identify and define the computing and/or security requirements appropriate to its solution.
3. Ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
4. Ability to function effectively on teams to accomplish a common goal.
5. Understand professional, ethical, legal, security, and social issues and responsibilities.
6. Ability to communicate effectively with a range of audiences.
7. Ability to analyze the local and global impact of computing on individuals, organizations, and society.
8. Recognize the need for, and an ability to engage in, continuing professional development.
9. Ability to use current techniques, skills, and tools necessary for computing and/or security practices.
10. Ability to apply design and development principles including: secure design and development standards in the construction of software systems of varying complexity.
11. Analyze, secure and administer computer networks of varying design and degrees of complexity.

Table 1, shown on the following page, maps the outcomes described above to specific courses.

Table 1: Student outcome and courses that achieve those outcomes. (S: Strong, M: Medium, W: Weak. An empty cell indicates that the outcome is not necessarily met by the course)

Student Outcomes to Course Mappings (S: Strong, M: Medium; W: Weak)											
Course	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
ITEC-110	**M**	**W**	**W**	**M**	**M**		**M**	**W**	**W**		
ITEC-120	**S**	**S**	**S**	**W**	**M**		**W**		**M**	**W**	
ITEC-122	**S**	**S**	**S**							**S**	
ITEC-220	**S**	**S**	**S**		**S**	**M**	**W**	**W**	**S**	**S**	
ITEC-225	**M**	**S**	**S**		**S**		**W**	**W**	**S**	**M**	
ITEC-310	**S**	**S**							**S**	**S**	
ITEC-340	**M**	**S**	**S**						**S**	**S**	
ITEC-345	**M**	**S**	**M**		**S**			**M**	**M**	**M**	**M**
ITEC-350	**S**		**S**	**S**		**S**		**S**	**S**	**S**	**M**
ITEC-352	**S**	**S**	**S**						**M**	**M**	**W**
ITEC-360	**S**	**S**	**S**						**S**	**M**	
ITEC-370	**S**	**S**	**S**	**S**	**M**	**S**	**S**	**M**	**S**		
ITEC-371	**S**		**S**		**M**			**M**	**M**	**M**	**W**
ITEC-420	**S**	**M**	**M**							**S**	
ITEC-445	**S**	**S**	**S**					**M**	**S**	**S**	**S**
ITEC 455	**S**	**S**	**S**	**S**	**M**	**S**	**W**	**S**	**S**	**S**	**S**
ITEC 465	**S**	**S**	**S**	**W**				**S**	**S**	**S**	**S**
ITEC 466	**S**	**S**	**S**	**M**			**S**	**S**	**S**	**S**	**S**
ITEC-490					**S**	**S**	**M**	**S**			

Program Assessment

The Department of Information Technology currently offers three BS programs that are ABET accredited. Consequently, the Department has an extensive and well established assessment program. The Department maps all student learning outcomes to specific courses that support each outcome as shown in Table 1 above. Each student outcome is assessed by measuring student performance in all courses mapped to the outcome. Selected assessments are conducted every semester with all mapped assessments being completed in a three-year cycle. The goal for each student outcome is a measured student competency of 3.5 on a 5.0 scale. The Department leadership team reviews the data each year and initiates corrective action if necessary. The Department also does alumni and senior surveys to gather feedback on the program, as well as conduct a meeting with industry partners to get feedback on graduates and industry trends on an

annual basis. Data from the course based assessment, alumni survey, senior survey, and industry meeting is summarized and reports on assessment outcomes are generated each summer. The Department's leadership team meets in the Fall to review the raw data and summary reports. The leadership team then decides what corrective actions and other program improvements are needed and an action plan is developed.

Prior to the beginning of the BSCCS program, the existing courses will be added to the established assessment rotation. This will follow a calendar (tentatively) as shown in Table 1. Assessment of student outcomes will begin in the first semester of the program. Course based assessment will be collected, summarized, and evaluated in Fall 2018 with corrective actions initiated by the Department leadership team if necessary.

Program Outcome	**Supporting Assessments of Student Work Conducted in ITEC**					
	Fall 2017	**Spring 2018**	**Fall 2018**	**Spring 2019**	**Fall 2019**	**Spring 2020**
	1	**2**	**3**	**4**	**5**	**6**
1		320	120, 281, 352, 420	220, 340, 371, 455	465	122, 360, 425
2	345	360		465	120, 220, 352	122, 225, 315, 325, 370, 425
3	120, 226	225, 360	122, 281	220, 315, 340, 371, 425	324, 352, 380	320, 325
4	110	350		325	370	
5		425, 485	220, 490	345	340	495
6		227			370	490
7		340	485, 490		370	495
8	490					345
9	220, 225, 226, 281	227, 315, 320, 425	380	325, 350, 455	324, 340, 445	335, 360, 370
10	465	466	345			320
11	465	466				

The BSCCS will begin in Fall 2017, and junior and senior level courses will be taught starting in the Fall 2017. This rotation will allow for new transfer students, as well as students who have taken the correct prerequisite courses, to select the BSCCS program and begin as juniors in Fall 2017. The first graduates from the BSCCS program are expected in Spring 2019. In the Spring 2019 semester, the Department will begin senior surveys of BSCCS graduates and a report will be generated that summer for departmental review in Fall 2019. The following summer, the Department will have alumni from the program who have been in the workforce for at least one year, and the annual process of alumni surveying will begin. This will provide for the last piece of the established assessment process in the Department, and a full set of assessment reports will

be created in Summer 2020 for leadership team review in Fall 2020. At this point, the Department will assess and report on the BSCCS in the same cycle as the three established ABET accredited programs with an annual data collection, analysis, review, and action plan creation process. A thorough review of the annual reports, action plans, and student outcomes are completed at the end of each three-year assessment cycle and improvements are determined and an action plan created.

The Department chair also creates an annual program review report for the Dean of the College of Science and Technology on each program in the Department. These reports provide a review outside the Department and are conducted under the auspices of the Radford University Office of Academic Assessment. The annual reports are the basis for the University's five-year cycle of review for every academic program and include, but are not limited to, topics including program viability numbers, student retention, faculty productivity, and program strengths and weaknesses. The annual program review documents for the BSCCS will begin with the 2020-21 academic year after the program has had its first graduates in Spring 2020.

Benchmarks of Success

The BSCCS will produce graduates prepared to obtain jobs in the cybersecurity field or to enter a graduate program. The following benchmarks will measure how successfully the program meets its goals:

1. The BSCCS will attract and retain students
    a) Enrollment in the first year will equal at least 30 students (75 percent of the current number who are pursuing a BSCS degree with the undergraduate certificate in information assurance as a supplement).
    b) In subsequent years, the enrollment will exceed the above number.
2. Eight-five percent of the program's seniors will report on the senior exit survey being satisfied or highly satisfied with the program.
    a) Senior satisfaction will be reviewed annually and if the satisfaction is below 85 percent the leadership team will analyze the senior survey results and develop an action plan to improve satisfaction based on student responses.
3. Ninety percent of graduates are placed in appropriate employment or graduate school within one year of graduation.
    a) Employment and graduate school acceptance rates will be determined from the alumni surveys and reviewed on an annual basis. If the goals are not met, the leadership team will work with survey results and industry partners to determine the reason and develop an action plan to improve the program.

Spin-Off

The BSCCS program is a spin-off of the existing Bachelor of Science in Computer Science degree program.

The current certificate program was created to allow students in the Computer Science and Technology and Information Science and Systems programs to develop a deeper understanding of information security. The existing program is a nine credit hour undergraduate certificate and requires the following coursework:

ITEC 345 – Introduction to Information Security	3
ITEC 445 – Computer Systems and Database Security	3
ITEC 455 – Applied Cryptography and Network Security	3

The BSCCS builds a bachelor level degree from the foundation of a nine credit hour certificate. Additional security classes, classes from the current Bachelor of Science in Computer Science and Technology program, and the required general education and Bachelor of Science electives are included to create a new 120 credit hour bachelor degree program. Due to the overlap with the existing computer science program and information security certificate, the new BSCCS program can be created without any additional faculty. The required new courses will be within the Department's capacity and expertise to teach. The existing Information Security Certificate will continue to be offered as an option for students in the Computer Science and Information Systems programs.

Expansion of Existing Program

This program is not an expansion of an existing program.

Relationship to Existing Degree Programs

Although the proposed BSCCS is a stand-alone program, the BSCCS curriculum overlaps significantly with the existing Computer Science and Technology (CSAT) degree program, also taught in the Department of Information Technology. The BSCCS will require all of the Department's core classes. ITEC 122 (Discrete Math) will also be a core requirement of the BSCCS program. The BSCCS program will differ from the existing CSAT program by requiring two additional security classes and one additional class requirement at the 400 level within the Mathematics Department. The program will also differ from each of the four concentrations currently offered by the CSAT degree. The table below shows the number of courses in the BSCCS program that are different from each of the CSAT concentrations.

Concentration	**Number of Different Courses**
Computer Science	6 courses (18 credits)
Networking	7 courses (21 credits)
Software Engineering	7 courses (21 credits)
Database	7 courses (21 credits)

The proposed BSCCS degree is expected to have an impact on the current computer science program. Many of the students pursuing the Department's Information Security Certificate (approximately 90 each year) are majoring in computer science. Some of these students will change their major from CSAT to the proposed BSCCS program thereby reducing the number of majors in the CSAT program. Enrollment in the computer science program is very healthy with over 300 students. Losing some students to the proposed program will not hurt the viability of the CSAT program. Additionally, because the BSCCS shares a number of classes with the computer science program, enrollment in the CSAT courses should remain steady and eventually increase as the BSCCS program attracts new students.

Collaboration or Standalone

The proposed BSCCS degree is a stand-alone program.

Response to Current Needs

Over the last three decades, Computer Science has continued to be one of the most highly demanded and best paying majors[5, 6]. Among computer science jobs, information security tends to be even higher in demand. The National Initiative for Cybersecurity Education (NICE) group at the National Institute of Standards and Technology (NIST)[7] using research by Burning Glass, the Bureau of Labor Statistics, and CompTIA concluded that *"cybersecurity jobs are in high and growing demand and that a critical shortage of qualified workers exists across the nation. Specifically, according to Burning Glass' research, postings for cybersecurity jobs have grown* ***91 percent*** *from 2010 to 2014. This growth rate is over three times faster than all Information Technology (IT) jobs".* The Bureau of Labor Statistics Occupational Outlook Handbook[8] indicates the job outlook for 2014-24 is expected to be 18 percent, faster than average. Moreover, a heavy demand exists for cybersecurity workforce in Virginia but there is a critical shortage in the number of workers. Specifically, Virginia currently ranks second in the country in total job postings in cybersecurity according to the *Burning Glass Job Market Intelligence Report* [9] (Figure 4), but almost 17,000 jobs in cybersecurity in Virginia are unfilled as stated by the Governor in his State of the Commonwealth 2016 address[10]. According to the Burning Glass research report, employers are demanding more education or experience for these cybersecurity jobs with almost 61 percent, of the jobs requiring a BS degree as shown in Figure 5. Data from the Virginia Employment Commission and the U.S. Bureau of Labor Statistics (2012-22) also come to the same conclusion (as shown in Figure 6): that a bachelor degree is typically required for entry-level jobs.

Top States by Total Postings*

	State	Total Postings	Location Quotient**	% Growth (2010-2014)
1	California	28,744	1.02	75%
2	Virginia	20,276	3.09	38%
3	Texas	18,525	0.92	113%

Figure 4: States with most cybersecurity jobs (source: Burning Glass Report 2015).

---

[5] http://www.bankrate.com/finance/personal-finance/high-paying-college-majors-1.aspx
[6] http://www.forbes.com/pictures/lmj45jgfi/no-3-computer-science/#1d0ba3bd6323
[7] http://csrc.nist.gov/nice/map/faq.html
[8] http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm
[9] http://burning-glass.com/wp-content/uploads/Cybersecurity_Jobs_Report_2015.pdf 10 https://governor.virginia.gov/newsroom/newsarticle?articleId=13920

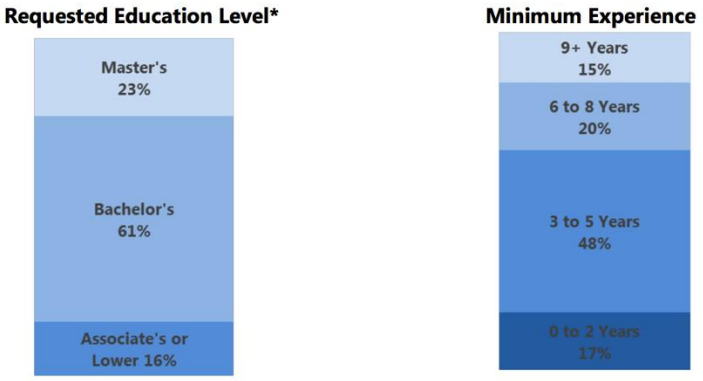


Figure 5: Education level for cybersecurity jobs (courtesy: Burning Glass Report 2016)

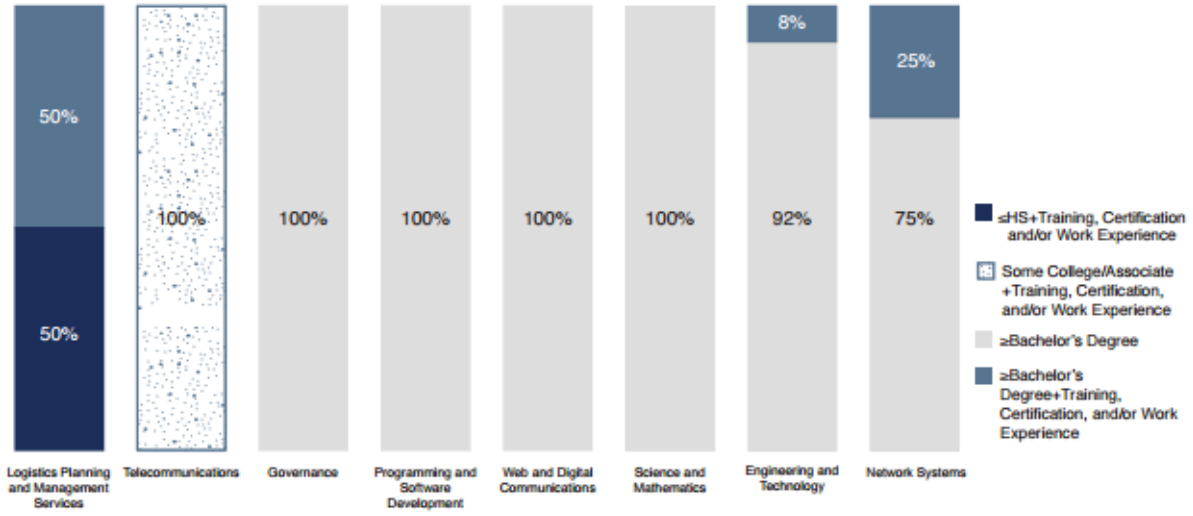


Figure 6: Predominant Education Level for Cybersecurity (source of this image is from the report: Virginia's 21st Century Career Pathway: Cybersecurity Page 12, Figure 4). The image shows that in most employment categories (Governance, Programming, Web, Science and Mathematics, Engineering and Technology and Network Systems), cybersecurity jobs require a bachelor degree or higher.

Employment Demand

The Commonwealth of Virginia has the highest concentration of cybersecurity positions in the country (Bureau of Labor Statistics refers to this field as 15-1122 Information Security Analysts).

States with the highest employment level in this occupation[1]:

State	Employment	Employment per thousand jobs	Location quotient	Hourly mean wage	Annual mean wage
Virginia	10,270	2.82	4.75	$50.34	$104,700
California	7,700	0.51	0.86	$51.06	$106,200
Texas	6,170	0.55	0.93	$42.99	$89,410
New York	4,760	0.54	0.91	$53.83	$111,970
Florida	3,790	0.49	0.83	$39.71	$82,610

[1]http://www.bls.gov/oes/current/oes151122.htm#top; Accessed 2/18/16.

As well as being a high demand field in Virginia, it is a high paid field with a mean annual wage of $104,700.

The Bureau of Labor Statistics also expects this field to grow faster than average with an 18 percent, growth rate where the national average is seven percent and have a higher median pay of $88,890 where the national median pay is $35,540. The Bureau's summary statistics are posted below.

Information security analysts work to protect a company's computer systems[2].

Quick Facts: Information Security Analysts	
2014 Median Pay	$88,890 per year $42.74 per hour
Typical Entry-Level Education	Bachelor degree
Work Experience in a Related Occupation	Less than 5 years
On-the-job Training	None
Number of Jobs, 2014	82,900
Job Outlook, 2014-24	18% (Much faster than average)
Employment Change, 2014-24	14,800

[2] http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.html. Accessed on 2/18/16.

Student Demand

In September 2016, three surveys were sent out to determine student demand for a Bachelor of Science in Computer Science and Cybersecurity. The first survey was sent to the 401 students currently majoring in Information Technology at Radford University. The second survey was sent to community college students at three colleges in the VCCS enrolled in IT classes. The final survey was sent to high school students in Virginia. The results from the three different groups are detailed below.

Radford University Department of Information Technology Student Responses

Of the 96 responding students, 20 were freshmen, 17 were sophomores, 29 were juniors and 30 were seniors. Respectively, 82 and 14 were majors in Computer Science and in Information Systems. Currently, 72 of the 96 were planning on getting the Department's Certificate in Information Security.

Among the 96 responding students, 59 said they were "Very Interested" in a new bachelor degree program in Computer Science and Cybersecurity. Another 25 were "Somewhat Interested" in the new security degree. When asked how likely they were to change from their current degree program to the new security degree program 35 said they were "Extremely Likely" and another 12 said they were "Slightly Likely."

How likely are you to change from your current major to a new degree program in Computer Science and Cybersecurity if it were to become available?

Answer	%	Count
Extremely Likely	36.46%	35
Slightly Likely	12.50%	12
Neither Likely Nor Unlikely	20.83%	20
Slightly Unlikely	15.63%	15
Extremely Unlikely	14.58%	14
Total	100%	96

Community College Student Responses

Surveys were sent to the community college from which the Department of IT receives the majority of its transferees. Contacts within the community college's IT programs were requested to ask students taking such classes to take the survey. Of the 66 respondents, all reported being currently enrolled in IT classes, and 39 considered it "Extremely Likely" they would be seeking a bachelor degree in the information technology field. Of the 66 students, 17 were "Very Interested" in a BS in Computer Science and Cybersecurity degree from Radford University, and 36 were "Somewhat Interested."

Would you be interested in a degree program in Computer Science and Cybersecurity at Radford University?

Answer	%	Count
Very Interested	27.76%	17
Somewhat Interested	54.55%	36
Neutral	12.12%	8
Somewhat Not Interested	3.03%	2
Not Interested	3.03%	2
Total	100%	66

High School Student Responses

Links to the high school student survey were distributed to high school students in Virginia through teachers who have established relationships with Radford University's Department of Information Technology faculty. Of the 338 high school students who responded, 120 were seniors, 103 were juniors, 94 were sophomores, and 21 were freshmen. One hundred twenty-five reported as being "Extremely Likely" to major in a computer science or information systems discipline in college. When asked if they would be interested in a Bachelor in Computer Science and Cybersecurity, 76 reported being "Very Interested" and 98 reported being "Somewhat Interested."

How interested would you be in a Bachelor of Science degree in Computer Science and Cybersecurity?

Answer	%	Count
Very Interested	22.49%	76
Somewhat Interested	28.99%	98
Neutral	20.12%	68
Somewhat Not Interested	12.72%	43
Not Interested	15.68%	53
Total	100%	338

Projected Enrollment

Year 1		Year 2		Year 3		Year 4 **Target Year (2-year institutions)**			Year 5 **Target Year (4-year institutions)**		
2017 - 2018		**2018 - 2019**		**2019 - 2020**		**2020 - 2021**			**2021 - 2022**		
HDCT	FTES	HDCT	FTES	HDCT	FTES	HDCT	FTES	GRAD	HDCT	FTES	GRAD
20		30		36		45		14	50		22

Assumptions

- 75 percent retention
- 90 percent full-time students, 10 percent part-time students, on average
- Full-time students will take 15 credit hours per semester.
- Part-time students will take 9 credit hours per semester.
- Full-time students will graduate in four years.
- Part-time students will graduate in seven years or less.

Duplication

Old Dominion University offers a BS in Cybersecurity through their Interdisciplinary Studies program, and the Volgenau School of Engineering at George Mason offers a BS in Cybersecurity Engineering. The proposed BSCCS is unique in that it is the first undergraduate cybersecurity degree based on in-depth computer science concepts and principles. The ODU degree is interdisciplinary, and the George Mason degree focuses on physical and hardware security.

https://www.odu.edu/academics/programs/undergraduate/cybersecurity

http://advising.gmu.edu/wp-content/uploads/Cyber-Security-Engineering-Sample-Schedule-2016-2017-1.pdf

Projected Resource Needs

The following items detail the resources necessary to initiate the proposed program.

Full-Time Faculty
No new faculty positions are needed. However, additional salary is needed for an existing Special Purpose Faculty position.

Graduate Assistants
One full-time graduate assistant is requested for the initiation year.

Equipment
The BSCCS program requires a dedicated external network connection that enables students to experiment with potentially harmful software, while insulating the University's network.

Part B: Fill in the number of FTE and other positions needed for the program

	Program Initiation Year 2017- 2018		Expected by Target Enrollment Year 2021- 2022	
	On-going and reallocated	**Added (New)**	**Added (New)*** **	**Total FTE positions**
Full-time faculty FTE*	1.00	0.00	0.00	1.00
Part-time faculty FTE**	0.00	0.00	0.00	0.00
Adjunct faculty	0.00	0.00	0.00	0.00
Graduate assistants (HDCT)	1.00	0.00	0.00	1.00
Classified positions	0.00	0.00	0.00	0.00
TOTAL	2.00	0.00	0.00	2.00

*Faculty dedicated to the program.
**Faculty effort can be in the Department or split with another unit.
***Added **after** initiation year

Part C: Estimated resources to initiate and operate the program

	Program Initiation Year 2017- 2018		Expected by Target Enrollment Year 2022- 2023	
Full-time faculty	1.00	0.00	0.00	1.00
salaries	$96,815	$0	$0	$96,815
fringe benefits	$28,596	$0	$0	$28,596
Part-time faculty (faculty FTE split with unit(s))	0.00	0.00	0.00	0.00
salaries				$0
fringe benefits				$0
Adjunct faculty	0.00	0.00	0.00	0.00
salaries				$0
fringe benefits				$0
Graduate assistants	1.00	0.00	0.00	1.00
salaries	$9,000	$0	$0	$9,000
fringe benefits	$0	$0	$0	$0
Classified Positions	0.00	0.00	0.00	0.00
salaries				$0
fringe benefits				$0

Personnel cost				
salaries	$105,815	$0	$0	$105,815
fringe benefits	$28,596	$0	$0	$28,596
Total personnel cost	$134,411	$0	$0	$134,411
Equipment				$0
Library				$0
Telecommunication costs	$6,000	$0	$0	$6,000
Other costs				$0
TOTAL	**$140,411**	**$0**	**$0**	**$140,411**

Appendices*

Appendix A – Sample Plans

Appendix B – Course Descriptions

Appendix C – "Abbreviated CV's" for Faculty

Prem Uppuluri, PhD in Computer Science, 2003, Stony Brook University, Associate Professor of Information Technology. Specialization Area: security and privacy.

New Hire, PhD in Computer Science or related area, Special Purpose Instructor of Information Technology. Specialization Area: cybersecurity.

Appendix D – Employer Demand

Several prominent companies have agreed to write letters of demand for the BSCCS.

Appendix E – Employment Demand

We have collected 25 entry level job descriptions printed in mid-September 2016.

Appendix F – Student Demand

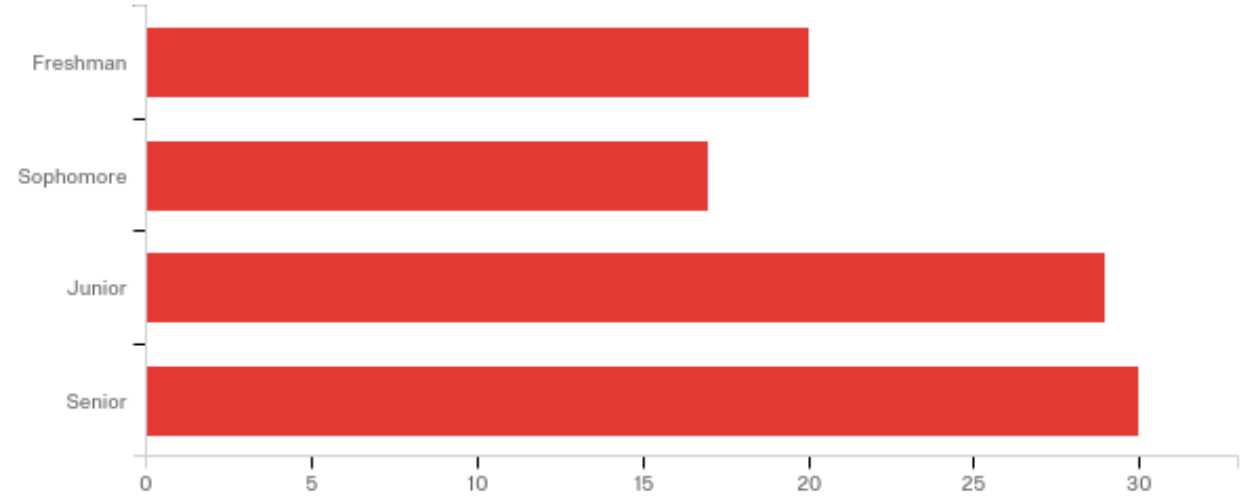
Several students from Radford University, Virginia community colleges, and Virginia high schools have agreed to write letters of demand for the BSCCS.

*Full Appendices provided in SCHEV submission.

Appendix G – Students Needs Survey for Computer and Cyber Science BS Degree Program

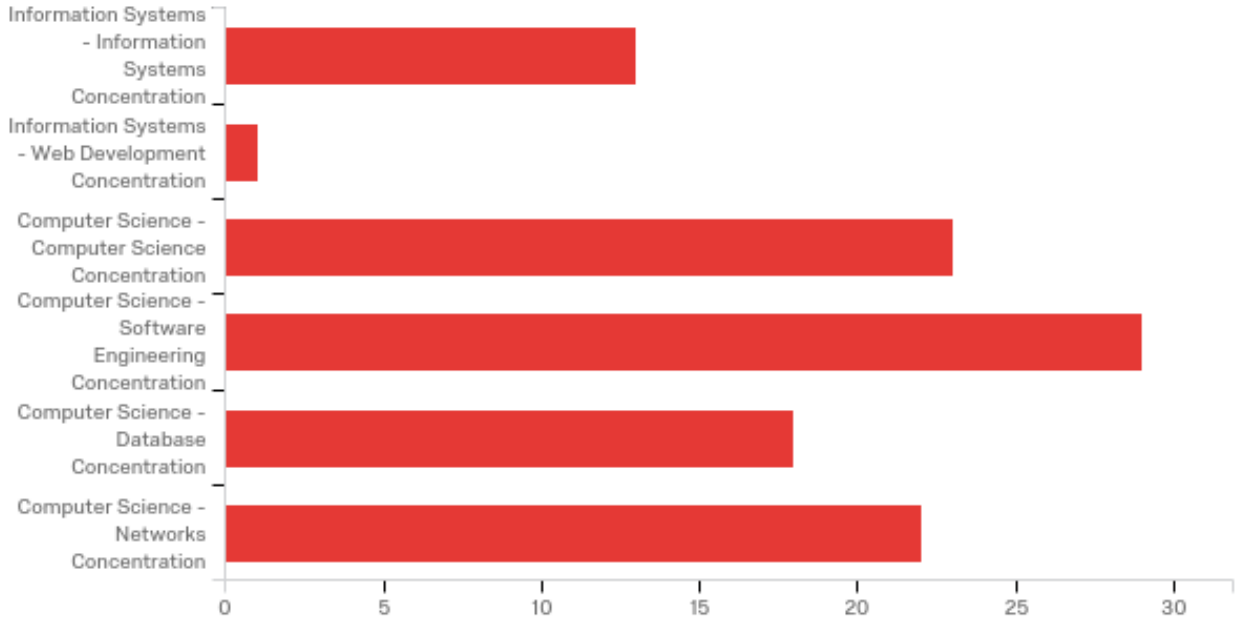
Default Report
RU Student Survey-Security Degree
September 29th 2016, 9:02 am EDT

Q1 - You are a:



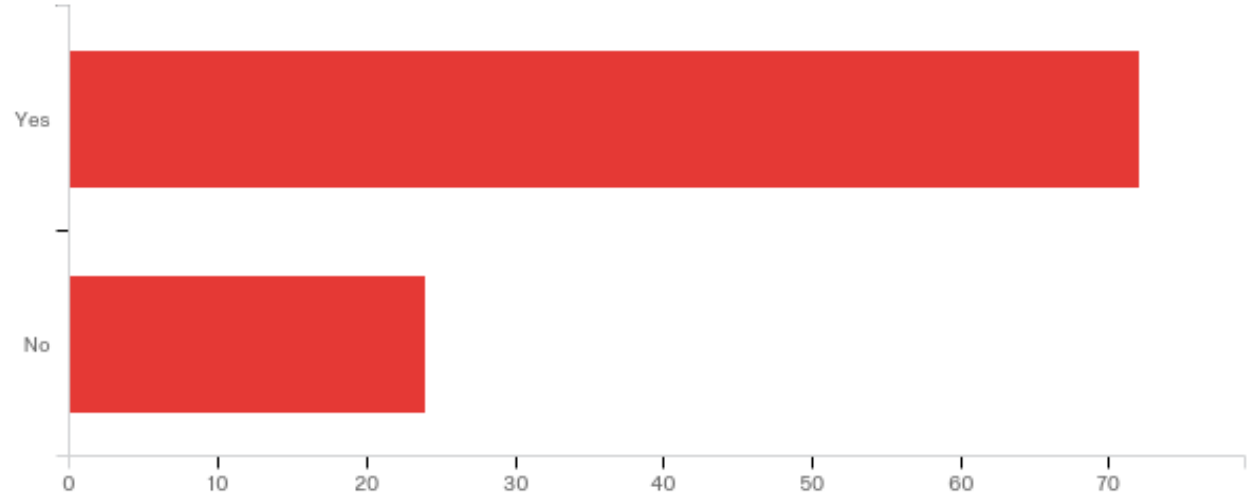
Answer	%	Count
Freshman	20.83%	20
Sophomore	17.71%	17
Junior	30.21%	29
Senior	31.25%	30
Total	100%	96

Q2 - Your Current Concentration (select all that apply):



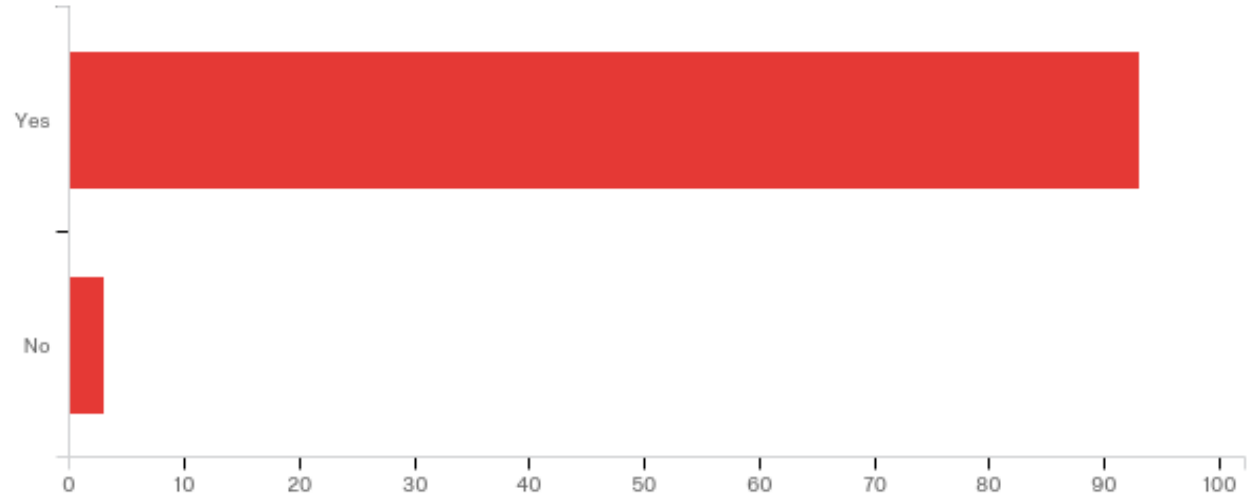
Answer	%	Count
Information Systems - Information Systems Concentration	13.54%	13
Information Systems - Web Development Concentration	1.04%	1
Computer Science - Computer Science Concentration	23.96%	23
Computer Science - Software Engineering Concentration	30.21%	29
Computer Science - Database Concentration	18.75%	18
Computer Science - Networks Concentration	22.92%	22
Total	100%	96

Q4 - Are you currently planning on getting the Certificate in Information Security?



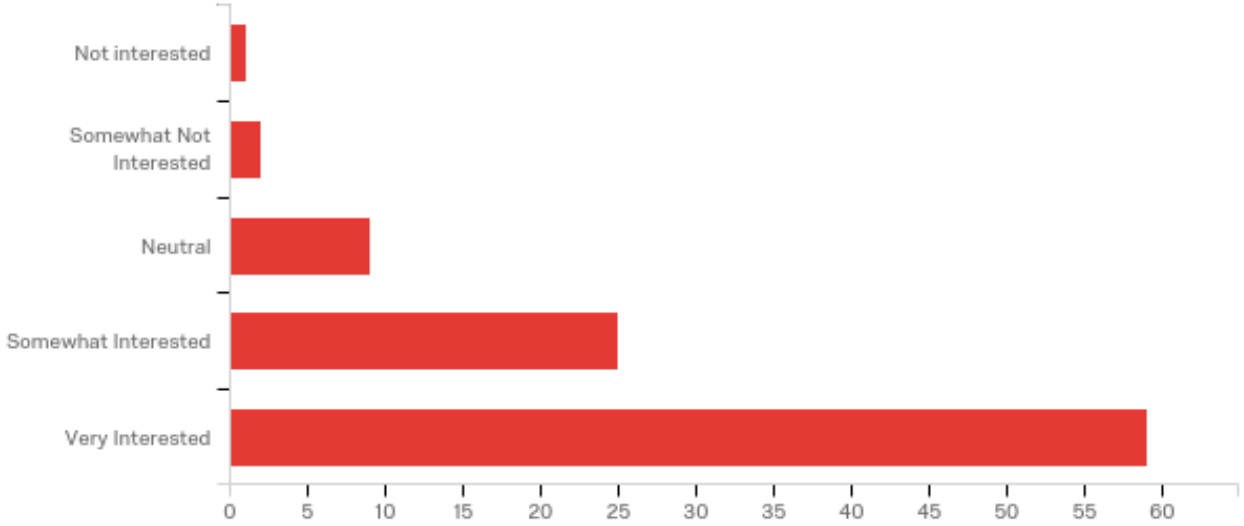
Answer	%	Count
Yes	75.00%	72
No	25.00%	24
Total	100%	96

Q5 - Are you currently planning on completing a Bachelor of Science degree (either at RU or another institution)?



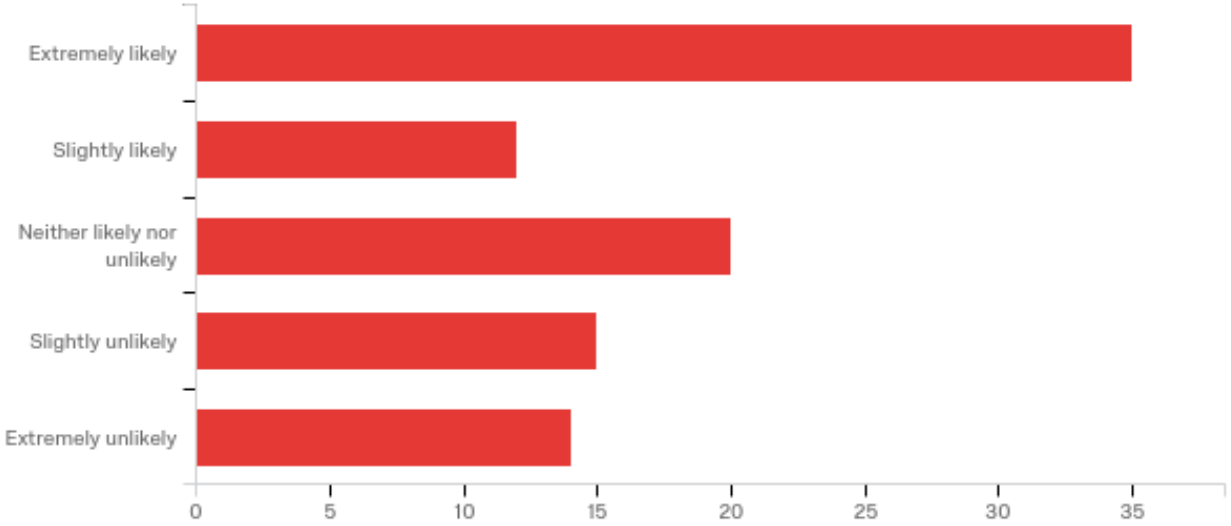
Answer	%	Count
Yes	96.88%	93
No	3.13%	3
Total	100%	96

Q6 - How interested would you be in a BS degree in Computer Science and Cybersecurity from the Department of Information Technology if one where offered?



Answer	%	Count
Not Interested	1.04%	1
Somewhat Not Interested	2.08%	2
Neutral	9.38%	9
Somewhat Interested	26.04%	25
Very Interested	61.46%	59
Total	100%	96

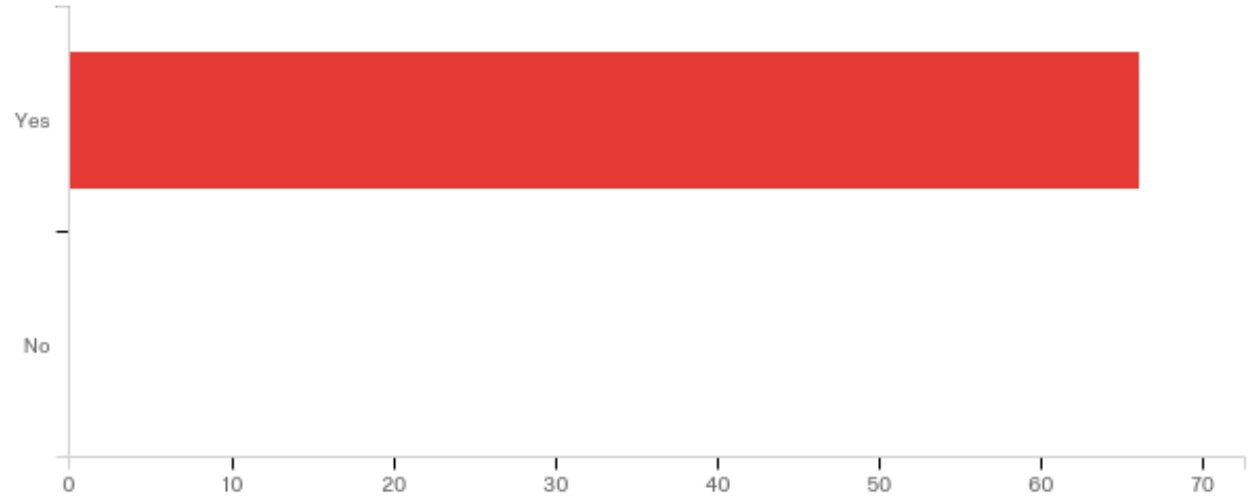
Q7 - How likely are you to change from your current major to a new degree program in Computer Science and Cybersecurity if it were to become available?



Answer	%	Count
Extremely Likely	36.46%	35
Slightly Likely	12.50%	12
Neither Likely Nor Unlikely	20.83%	20
Slightly Unlikely	15.63%	15
Extremely Unlikely	14.58%	14
Total	100%	96

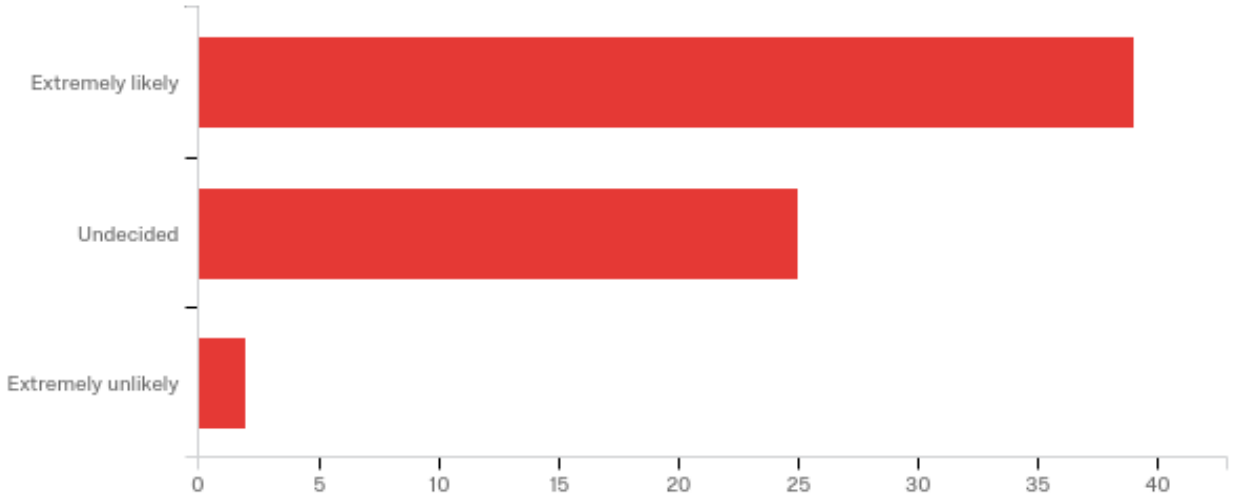
Default Report
CC Student Survey - Security Degree
September 29th 2016, 9:04 am EDT

Q1 - Are you currently taking CSC, ITP, ITN or ITD classes at a community college?



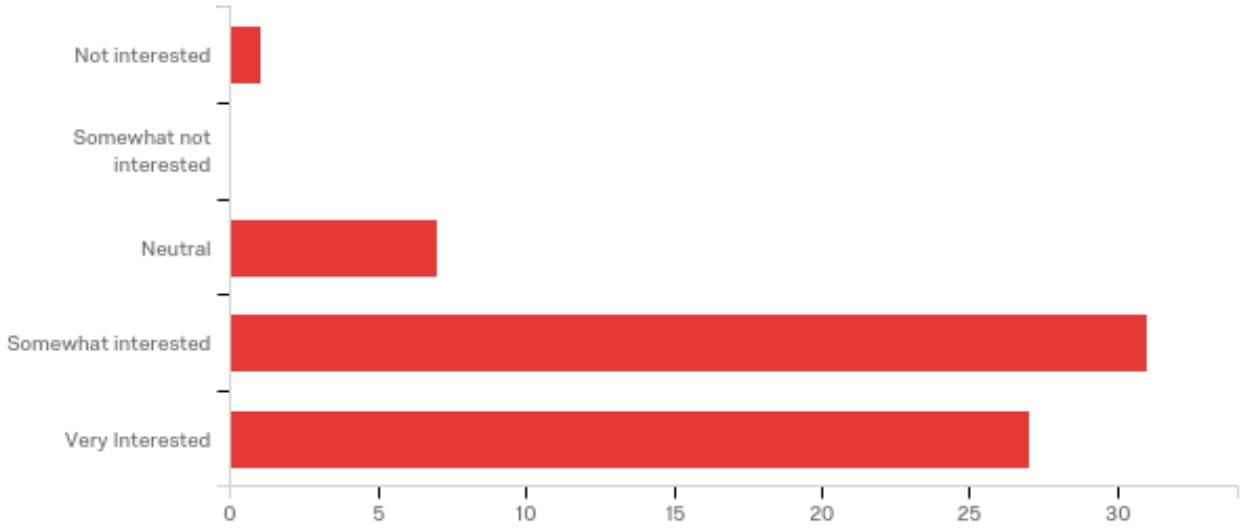
Answer	%	Count
Yes	100.00%	66
No	0.00%	0
Total	100%	66

Q2 - How likely are you to pursue a 4-year bachelor degree in the Information Technology field?



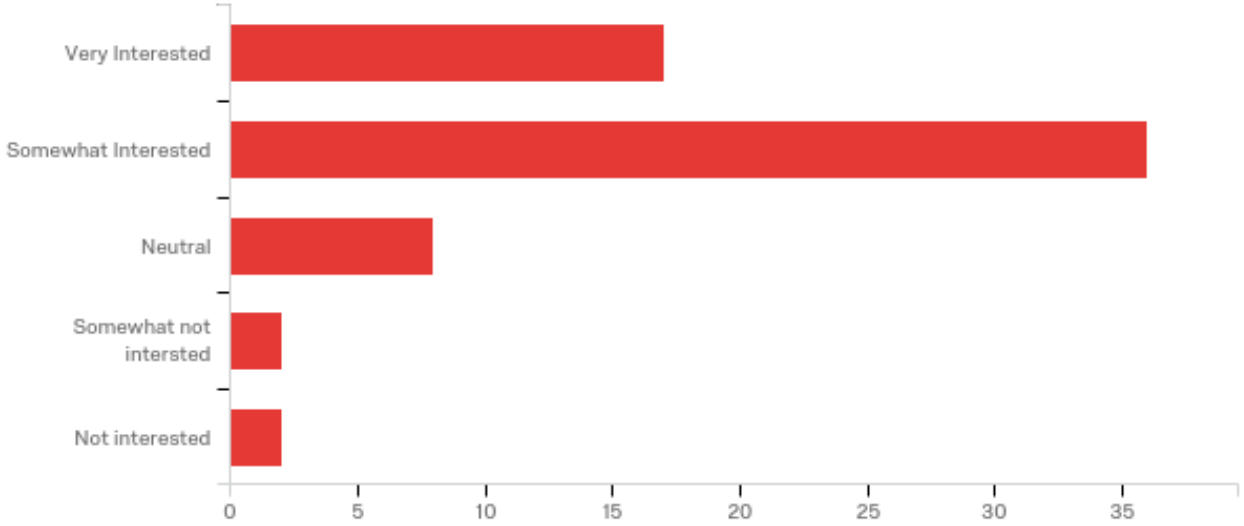
Answer	%	Count
Extremely Likely	59.09%	39
Undecided	37.88%	25
Extremely Unlikely	3.03%	2
Total	100%	66

Q3 - How interested would you be in a Bachelor of Science degree in Computer Science and Cybersecurity?



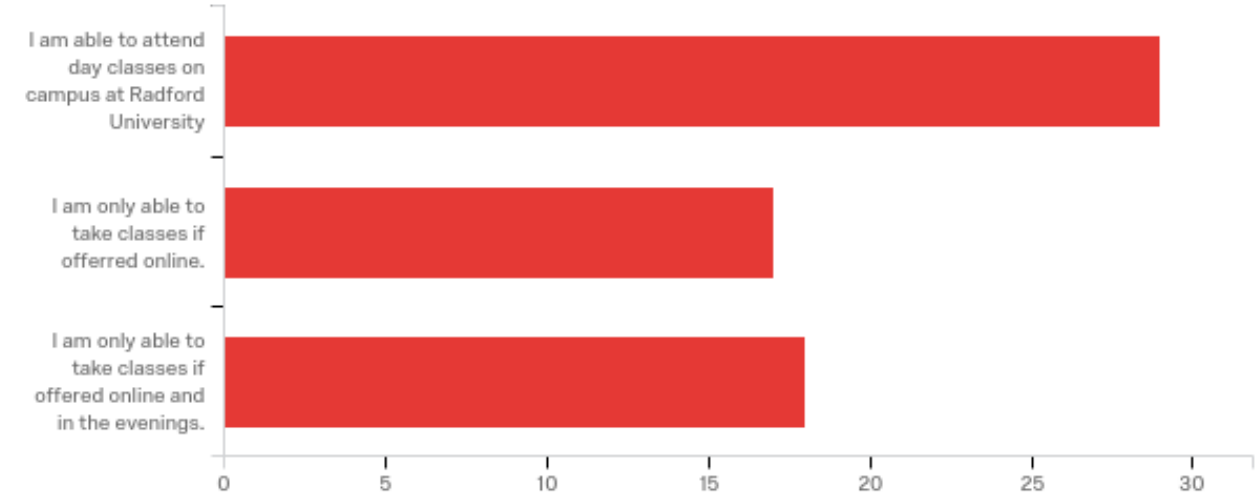
Answer	%	Count
Not Interested	1.52%	1
Somewhat Not Interested	0.00%	0
Neutral	10.61%	7
Somewhat Interested	46.97%	31
Very Interested	40.91%	27
Total	100%	66

Q4 - Would you be interested in a degree program in Computer Science and Cybersecurity at Radford University?



Answer	%	Count
Very Interested	25.76%	17
Somewhat Interested	54.55%	36
Neutral	12.12%	8
Somewhat Not Interested	3.03%	2
Not Interested	3.03%	2
Total	100%	66

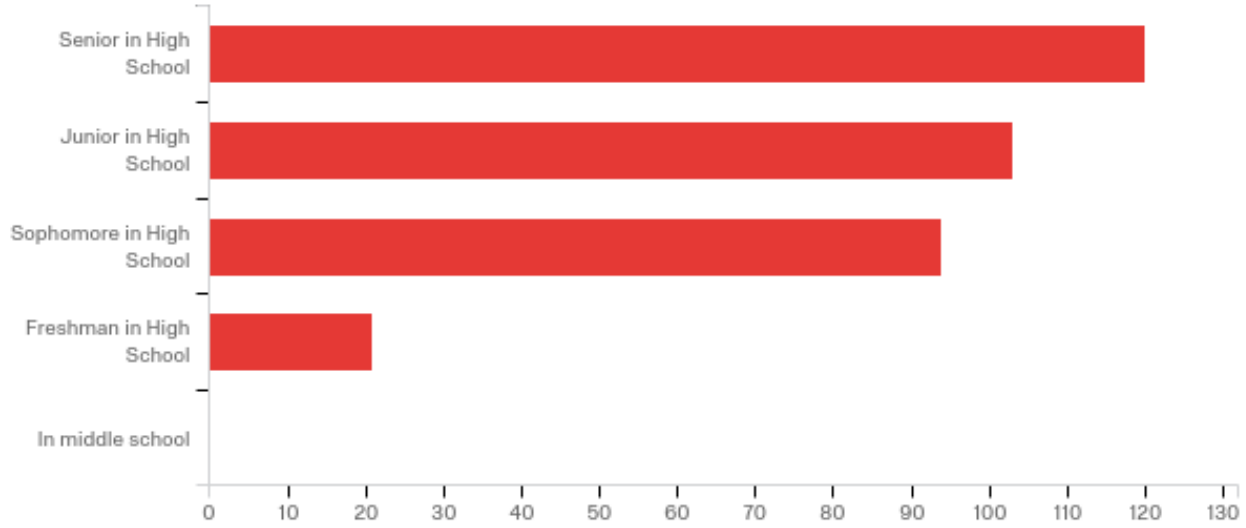
Q5 - Please select the response that best suits your situation.



Answer	%	Count
I am able to attend day classes on campus at Radford University.	45.31%	29
I am only able to take classes if offered online.	26.56%	17
I am only able to take classes if offered online and in the evenings.	28.13%	18
Total	100%	64

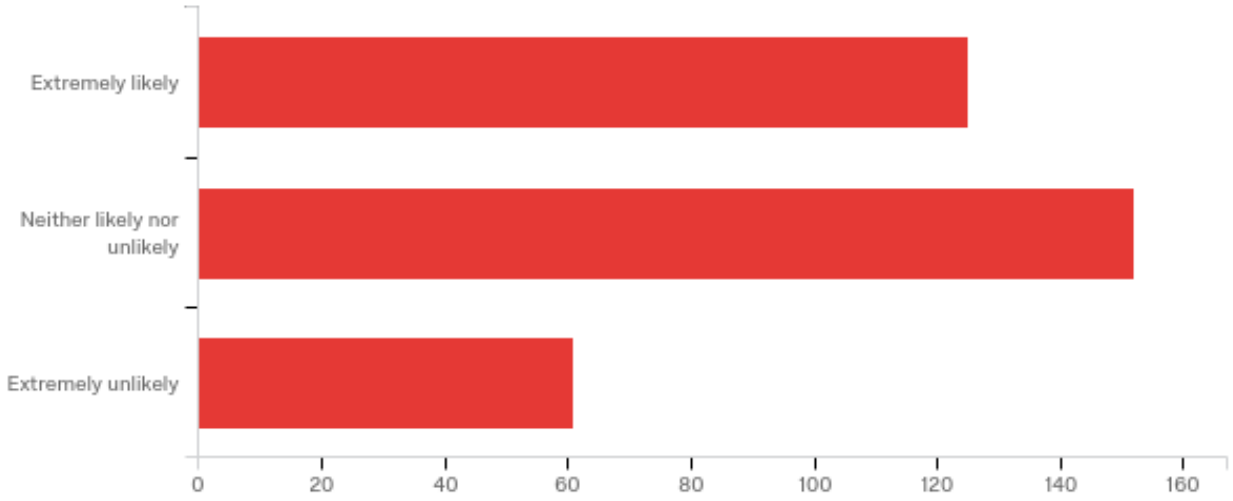
Default Report
HS Student Survey - Security Degree
September 29th 2016, 9:05 am EDT

Q1 - You are a:



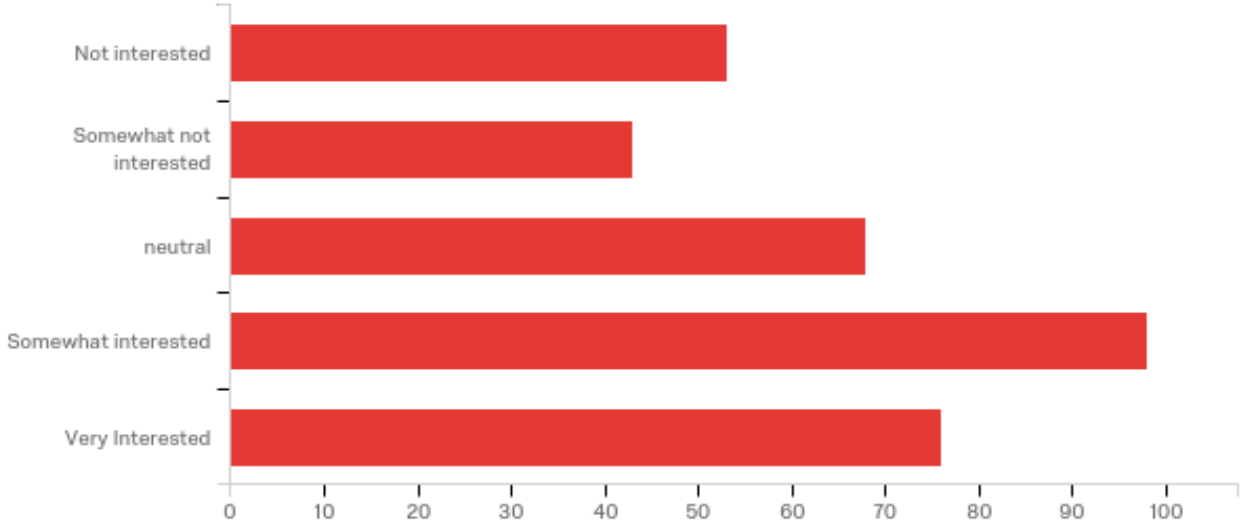
Answer	%	Count
Senior in High School	35.50%	120
Junior in High School	30.47%	103
Sophomore in High School	27.81%	94
Freshman in High School	6.21%	21
In Middle School	0.00%	0
Total	100%	338

Q2 - How likely are you to major in either computer science or information systems in college?



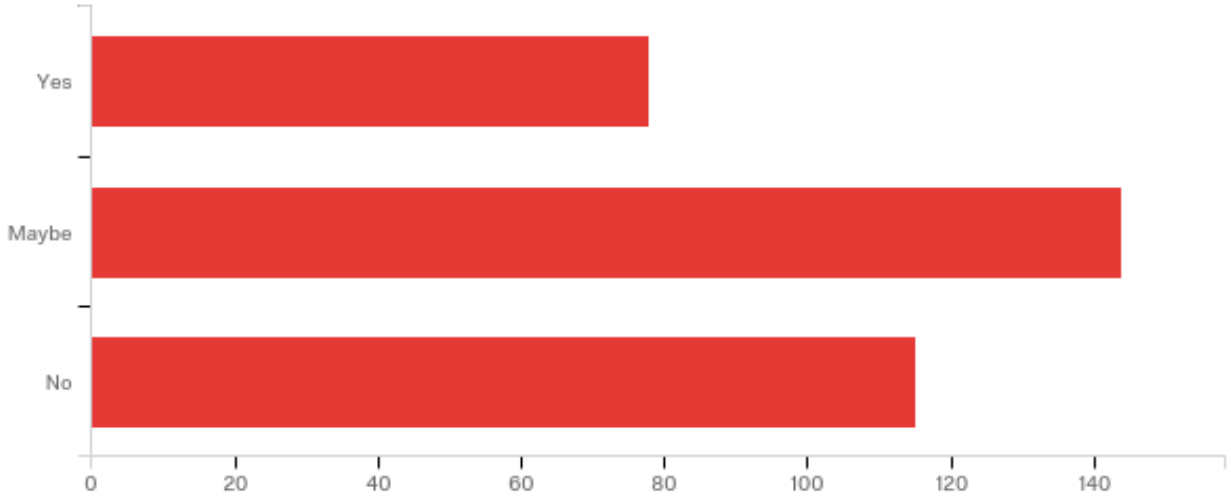
Answer	%	Count
Extremely Likely	36.98%	125
Neither Likely Nor Unlikely	44.97%	152
Extremely Unlikely	18.05%	61
Total	100%	338

Q3 - How interested would you be in a Bachelor of Science degree in Computer Science and Cybersecurity?



Answer	%	Count
Not Interested	15.68%	53
Somewhat Not Interested	12.72%	43
Neutral	20.12%	68
Somewhat Interested	28.99%	98
Very Interested	22.49%	76
Total	100%	338

Q4 - Would the development of a degree program focusing on cybersecurity increase your interest in Radford University?



Answer	%	Count
Yes	23.15%	78
Maybe	42.73%	144
No	34.12%	115
Total	100%	337

ATTACHMENT B

Resolution to Amend the
Teaching and Research Faculty Handbook

November 2016

WHEREAS, All proposed changes to the *Teaching and Research Faculty Handbook* must be managed in accord with §5.0 of that handbook, and

WHEREAS, the authority to amend or revise the Faculty Handbook lies with the Board of Visitors. However, proposals for revising the Handbook may be initiated by faculty, administrators, the President, or members of the Board of Visitors. Revisions fall into two categories: (1) those required to ensure that the University is in compliance with state policies and mandates, and (2) those within the purview of the decision-making processes within the University, and

WHEREAS, revisions required to ensure that the University is in compliance with state policies and mandates, and that do not require a decision by University personnel, will be effected through an administrative update, with faculty being informed of the change and the reasons for it, and

WHEREAS, revisions within the purview of the decision-making processes in the University Internal Governance system will be considered by appropriate committees as defined by the Internal Governance system. Proposals for changes will be made in the form of text intended to replace a portion of the Teaching and Research Faculty Handbook, noting new language and striking out the old language, and

WHEREAS, it will be the Faculty Senate's responsibility to ensure that the general faculty is provided time and opportunity to review the proposed change so faculty can communicate with their senators prior to any action by the Faculty Senate.

WHEREAS, the Faculty Senate's recommendations on proposed revisions to the Teaching and Research Faculty Handbook will be forwarded to and approved by the President. The Provost will forward the Faculty Senate's recommendations to the Academic Affairs Committee who will in turn make recommendations to the member of the full Board of Visitors.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Visitors of Radford University hereby approve in accordance with §5.0 of the *Teaching and Research Faculty Handbook,* Section 1.4.1.4.2: Evaluation Procedures for Special Purpose, Full-time Temporary, and Part-time Faculty is hereby amended to make changes to the timeline for student evaluations. Said section is to now read as follows (additions are in **red,** deletions are in ~~black~~):

> **Section 1.4.1.4.2: Evaluation Procedures for Special Purpose, Full-time Temporary, and Part-time Faculty**
>
> The Personnel Committee shall administer student evaluations of special purpose**,** and full-time temporary**, and part-time** faculty between the ~~twelfth~~ **thirteenth** and the fourteenth weeks of the semester for all courses, every semester. The appeals procedures shall also be the same as for tenure-track faculty.

and, be it further

RESOLVED, that in accordance with §5.0 of the *Teaching and Research Faculty Handbook,* Section 1.4.1.3: Student Evaluations of Faculty is hereby amended to amend the protocol in the language used to administer the student evaluations of faculty (additions are in **red,** deletions are in ~~black~~):

Section 1.4.1.3: Student Evaluations of Faculty

To ensure standardized administration of student evaluations, PLEASE READ THE FOLLOWING TO THE CLASS **(do not omit or add anything)**:

~~Part A –~~ **For all evaluations: Please read this before you begin.**

Student evaluations are an important part of each faculty member's overall evaluation. Professors will use comments you make to help them improve their teaching and classroom procedures. You are ~~encouraged~~ ***asked*** *to be honest, ~~direct~~* ***professional,*** *and thoughtful – ~~these evaluations are entirely confidential and students are not penalized for expressing their opinions about their professors.~~* ***in your responses. Please be professional in your evaluation. Offensive comments (whether related to race, gender, age, disability, or culture) reflect poorly on you as an individual and on the Radford University community as a whole. This is not an image that we support or encourage.*** *No discussions should take place while you are completing the ~~form~~* ***evaluation****: each ~~form represents one student's personal assessment~~* ***student provides his/her independent*** *assessment of the ~~instructor and class~~* ***course and the instructor****. **These evaluations are entirely confidential and they cannot be traced back to the people who complete them.*** ~~*After you complete this, the evaluation will be submitted to a secure server.*~~ *Instructors will not see the result of these evaluations until after course grades have been submitted.* ***Your comments are very important; consider them carefully.*** ~~*You will receive a single sheet that includes the evaluation questions, responses, and a section in which to provide your comments about the course and the instructor. There are questions on both sides of the sheet. Please provide all of your responses on the form provided. So that it is scanned properly, be sure to complete the form using a pen with blue or black ink. Instead of bubbling in the response, use an X to mark your responses. If you wish to change a response, fill in the square completely where you placed the wrong answer and use an X to indicate your new answer. After you complete this, the evaluations will be placed in a sealed envelope by the person administering the evaluation.*~~

~~Part B – for paper evaluations~~

~~Read prior to administering paper evaluations in class. These instructions do not apply to other types of evaluations.~~

~~*You will receive a single sheet that includes the evaluation questions, responses, and a section in which to provide your comments about the course and the instructor. There are questions on both sides of the sheet. Please provide all of your responses on the form provided. So that it is scanned properly, be sure to complete the form using a pen with blue or black ink. Instead of bubbling in the response, use an X to mark your responses. If you wish to change a response, fill in the square completely where you placed the wrong*~~

~~*answer and use an X to indicate your new answer. After you complete this, the evaluations will be placed in a sealed envelope by the person administering the evaluation.*~~

~~Part B: for in-class, online evaluations. These instructions are to be read before administering online, in-class evaluations:~~

~~*You will be given a piece of paper with a QR code on it. This is your personal link to the evaluation of the course and the instructor. No one else has this code and no one else can use it. Enter the code in your device, complete the evaluation according to online instructions, submit it, and you are finished. Throw away your code since it cannot be used again.*~~

and, be it further

RESOLVED, that in accordance with §5.0 of the *Teaching and Research Faculty Handbook*, Section 1.4.1.3: Student Evaluations of Faculty is hereby amended to change the timeline and language used un the student evaluations of faculty (additions are in **red,** deletions are in ~~black~~):

Section 1.4.1.3: Student Evaluations of Faculty

Student evaluations for full-semester courses**, regardless of method of delivery,** shall be conducted between the ~~eleventh~~ thirteenth and fourteenth weeks of the semester; for half-semester courses they are conducted during the sixth week of the course. If all students in a course are not scheduled to meet simultaneously in the same place with an instructor or proctor between the ~~eleventh~~ thirteenth and fourteenth weeks of the semester, then the student evaluation may be administered electronically. In the case of ~~online~~ evaluations of online courses, the faculty member ~~must~~ may designate a 24-hour period within the specified window during which evaluations will take place. ~~Summer sessions are excluded, unless evaluations are requested by the faculty member~~.

and, be it further

RESOLVED, that in accordance with §5.0 of the *Teaching and Research Faculty Handbook*, Section 1.4.1.4.1. Evaluation Procedures for Tenured and Tenure-track Faculty is hereby amended to make new adjectival categories more aligned with implications and outcomes; the amendments are as follows (additions are in **red,** deletions are in ~~black~~):

Section 1.4.1.4.1. Evaluation Procedures for Tenured and Tenure-track Faculty:

The Department Chair shall assign a numerical value to the descriptive term that represents her or his assessment of a faculty member in each of the three evaluation categories, as follows:

Outstanding	4.5 - 5.0
Above Expectations	3.5 - 4.49
Meets Expectations	3.0 - 3.49
~~Meets Expectations Minimally~~ Below Expectations	2.~~5~~0 - 2.99
~~Below Expectations~~ Unacceptable	Below 2.0 ~~- 2.49~~

15-16.07—Motion on Timeline for Student Evaluations

Referred by: Faculty Senate Governance Committee

MOTION:

The Faculty Senate recommends the following changes to the *T&R Faculty Handbook* related to the timeline for student evaluations.

Current Language:
Section 1.4.1.4.2 Evaluation Procedures for Special Purpose, Full-time Temporary, and Part-time Faculty
…
The Personnel Committee shall administer student evaluations of special purpose and full-time temporary faculty between the twelfth and the fourteenth weeks of the semester for all courses, every semester. The appeals procedures shall also be the same as for tenure-track faculty.
….
Proposed Revision:
Section 1.4.1.4.2 Evaluation Procedures for Special Purpose, Full-time Temporary, and Part-time Faculty
…
The Personnel Committee shall administer student evaluations of special purpose**,** and full-time temporary**, and part-time** faculty between the ~~twelfth~~ **thirteenth** and the fourteenth weeks of the semester for all courses, every semester. The appeals procedures shall also be the same as for tenure-track faculty.
...
RATIONALE:

The *Handbook* currently specifies that student evaluations must be conducted between the eleventh and fourteenth weeks of the semester for tenured and tenure-track faculty (Section 1.4.1.3, item 1). The Handbook later specifies that student evaluations must be conducted between the twelfth and fourteenth weeks for special purpose, full-time temporary, and part-time faculty. This creates unnecessary complexity for Personnel Committees. ~~The proposed revision extends the timeline for special purpose, full-time temporary, and part-time faculty to the eleventh to fourteenth weeks of the semester to be consistent with the timeline for tenured and tenure-track faculty.~~

In addition, Section 1.4.1.4.2 specifies “Part-Time Faculty” in the title of this section, but this group is not included in the handbook language. The change inserts “part-time faculty” in the first sentence of this section to rectify this error.

Passed October 29, 2015
Reconsidered April 21, 2016
[word changed in light of passage of a later motion]

15-16.17—Motion for Changes to the Protocol for Administering Evaluations

Referred by: Faculty Senate Faculty Issues Committee

MOTION:

The following changes will be made under 1.4.1.3 Student Evaluations of Faculty:

Original language:

To ensure standardized administration of student evaluations, PLEASE READ THE FOLLOWING TO THE CLASS (**do not omit or add anything**):

Student evaluations are a very important part of each faculty member's overall evaluation. Professors will use comments you make to help them improve their teaching and classroom procedures. You are encouraged to be honest, direct and thoughtful – these evaluations are entirely confidential and students are not penalized for expressing their opinions about their professors. No discussions should take place while you are completing the form: each form represents one student's personal assessment of the instructor and class. After you complete this, the evaluation will be submitted to a secure server. Instructors will not see the results of these evaluations until after course grades have been submitted. You will receive a single sheet that includes the evaluation questions, responses, and a section in which to provide your comments about the course and the instructor. There are questions on both sides of the sheet. Please provide all of your responses on the form provided. So that it is scanned properly, be sure to complete the form using a pen with blue or black ink. Instead of bubbling in the response, use an X to mark your responses. If you wish to change a response, fill in the square completely where you placed the wrong answer and use an X to indicate your new answer. After you complete this, the evaluations will be placed in a sealed envelope by the person administering the evaluation.

Revised language:

To ensure standardized administration of student evaluations, PLEASE READ THE FOLLOWING TO THE CLASS **(do not omit or add anything)**:

~~**Part A –** **For all evaluations: Please read this before you begin.**~~

Student evaluations are an important part of each faculty member's overall evaluation. Professors will use comments you make to help them improve their teaching and classroom procedures. You are ~~encouraged~~ ***asked*** *to be honest, ~~direct~~* ***professional,*** *and thoughtful ~~— these evaluations are entirely confidential and students are not penalized for expressing their opinions about their professors.~~* ***in your responses. Please be professional in your evaluation. Offensive comments (whether related to race, gender, age, disability, or culture) reflect poorly on you as an individual and on the Radford University community as a whole. This is not an image that we support or encourage.*** *No discussions should take place while you are completing the ~~form~~* ***evaluation****: each ~~form represents one student's personal assessment~~* ***student provides his/her independent*** *assessment of the ~~instructor and class~~* ***course and the instructor****.* ***These evaluations are entirely confidential and they cannot be traced back to the people who complete them.*** *~~After you complete this, the~~*

~~*evaluation will be submitted to a secure server.*~~ *Instructors will not see the result of these evaluations until after course grades have been submitted.* ***Your comments are very important; consider them carefully.*** ~~*You will receive a single sheet that includes the evaluation questions, responses, and a section in which to provide your comments about the course and the instructor. There are questions on both sides of the sheet. Please provide all of your responses on the form provided. So that it is scanned properly, be sure to complete the form using a pen with blue or black ink. Instead of bubbling in the response, use an X to mark your responses. If you wish to change a response, fill in the square completely where you placed the wrong answer and use an X to indicate your new answer. After you complete this, the evaluations will be placed in a sealed envelope by the person administering the evaluation.*~~

~~Part B – for paper evaluations~~

~~Read prior to administering paper evaluations in class. These instructions do not apply to other types of evaluations.~~

~~*You will receive a single sheet that includes the evaluation questions, responses, and a section in which to provide your comments about the course and the instructor. There are questions on both sides of the sheet. Please provide all of your responses on the form provided. So that it is scanned properly, be sure to complete the form using a pen with blue or black ink. Instead of bubbling in the response, use an X to mark your responses. If you wish to change a response, fill in the square completely where you placed the wrong answer and use an X to indicate your new answer. After you complete this, the evaluations will be placed in a sealed envelope by the person administering the evaluation.*~~

~~Part B: for in-class, online evaluations. These instructions are to be read before administering online, in-class evaluations:~~

~~*You will be given a piece of paper with a QR code on it. This is your personal link to the evaluation of the course and the instructor. No one else has this code and no one else can use it. Enter the code in your device, complete the evaluation according to online instructions, submit it, and you are finished. Throw away your code since it cannot be used again.*~~

RATIONALE:

Some concern has been expressed by faculty about the tone of comments made in evaluations. Without denying students the right to say whatever they want, we believe that it is possible to emphasize the need to be professional in their evaluations. This emphasis may come in several places. Here we propose small changes to the protocol included in the FTR handbook. We also are suggesting that the directions given in the protocol should be adapted to the medium used for the evaluation. This motion treats the protocol as consisting of two parts, A and B. A should be included with all evaluations. B will change according to the method of administration (email, QR code or paper). In the paragraphs above, areas in red are additions to the original.

Passed March 3, 2016

15-16.18—Motion on the Timing of Student Evaluations

Referred by: Faculty Senate - Faculty Issues Committee on behalf of the Student Evaluation of Faculty Committee

MOTION:

The following changes will be made under **1.4.1.3 Student Evaluations of Faculty:**

Original Language:

Student evaluations for full-semester courses shall be conducted between the eleventh and fourteenth weeks of the semester; for half-semester courses they are conducted during the sixth week of the course. If all students in a course are not scheduled to meet simultaneously in the same place with an instructor or proctor between the eleventh and fourteenth weeks of the semester, then the student evaluation may be administered electronically. In the case of online evaluations, the faculty member must designate a 24-hour period within the specified window during which evaluations will take place. Summer sessions are excluded, unless evaluations are requested by the faculty member.

Revised Language:

Student evaluations for full-semester courses**, regardless of method of delivery,** shall be conducted between the ~~eleventh~~ thirteenth and fourteenth weeks of the semester; for half-semester courses they are conducted during the sixth week of the course. If all students in a course are not scheduled to meet simultaneously in the same place with an instructor or proctor between the ~~eleventh~~ thirteenth and fourteenth weeks of the semester, then the student evaluation may be administered electronically. In the case of ~~online~~ evaluations of online courses, the faculty member ~~must~~ may designate a 24-hour period within the specified window during which evaluations will take place. ~~Summer sessions are excluded, unless evaluations are requested by the faculty member~~.

RATIONALE:

The current situation of administering electronic evaluations is unmanageable for the assessment office, due to the variations in requests for administration. The Student Evaluation of Faculty Committee asked us to work with it to resolve this problem while still meeting faculty needs to use electronic evaluations outside of the classroom. Although a two-week window for evaluations that are administered by email does not give faculty control over the precise date of administration, it does ensure that evaluations are conducted close to the end of the semester. It also enhances the likelihood that evaluations will be completed and turned in.

The proposed change eliminates the use of a 24-hour period to be designated by the faculty member and standardized the administration time for all courses to the thirteenth and fourteenth weeks of the semester. Departments and faculty may still choose the precise day of administration within the two-week window for evaluations administered in class. With online courses, faculty may email instructions to their class but they will not be able to enforce a 24-hour period. The latitude of the 24-hour period was the cause of a great deal of the administrative difficulties faced by the assessment office. It was also problematic since it did not relate to the procedure used for in-class evaluations.

This motion does not apply to summer sessions as they are generally not assessed or shorter sessions such as Wintermester. In those instances, the 24-hour window will continue to be the most effective solution, as long as students are pre-notified by email.

Passed March 3, 2016

15-16.29—Motion to Change Performance Outcome Categories

Referred by: Faculty Senate - Governance Committee

MOTION:

The Faculty Senate recommends the following changes under Item 3 in Section 1.4.1.4.1. Evaluation Procedures for Tenured and Tenure-track Faculty:

Current language:

> The Department Chair shall assign a numerical value to the descriptive term that represents her or his assessment of a faculty member in each of the three evaluation categories, as follows:
>
> | | |
> |---|---|
> | Outstanding | 4.5 - 5.0 |
> | Above Expectations | 3.5 - 4.49 |
> | Meets Expectations | 3.0 - 3.49 |
> | Meets Expectations Minimally | 2.5 - 2.99 |
> | Below Expectations | 2.0 - 2.49 |
> | Poor | Below 2.0 |

Revised language:

> The Department Chair shall assign a numerical value to the descriptive term that represents her or his assessment of a faculty member in each of the three evaluation categories, as follows:
>
> | | |
> |---|---|
> | Outstanding | 4.5 - 5.0 |
> | Above Expectations | 3.5 - 4.49 |
> | Meets Expectations | 3.0 - 3.49 |
> | ~~Meets Expectations Minimally~~ Below Expectations | 2.5~~0~~ - 2.99 |
> | ~~Below Expectations~~ Unacceptable | Below 2.0 ~~- 2.49~~ |

RATIONALE:

Currently, the adjectival ranking for performance is as follows:

> *Outstanding: 4.5 - 5.0*
> *Above Expectations: 3.5 - 4.49*
> *Meets Expectations: 3.0 - 3.49*
> *Meets Expectations Minimally: 2.5 - 2.99*
> *Below Expectations: 2.0 - 2.49*
> *Poor: Below 2.0*
>
> (1.4.1.4.1 Evaluation Procedures for Tenured and Tenure-track Faculty, p. 18)

- However, the standard used to determine post-tenure review is listed as follows:

A tenured faculty member whose overall evaluation rating falls below 3.0 or whose teaching rating falls below 3.0 is subject to post-tenure review which, after due process, may result in sanctions up to and including dismissal.

(1.4.1.4.1 Evaluation Procedures for Tenured and Tenure-track Faculty, p. 18)

As written, there is a conflict between obtaining a score that is considered “meeting expectations minimally” and being placed on post-tenure review. In fact, one is not meeting expectations if post-tenure review is triggered.

We move that new adjectival categories, more aligned with implications and outcomes, be used. Further, as there are no substantive differences between achieving rating in the 2.5 or 2.0 range, we collapse those two categories into a 1 point spread. Further, this one point range creates symmetry to the “above expectations” range. The Governance Sub Committee moves that the following change be made:

Outstanding: 4.5 - 5.0
Above Expectations: 3.5 - 4.49
Meets Expectations: 3.0 - 3.49
Below Expectations: 2.0 - 2.99
Unacceptable: Below 2.0

Passed April 21, 2016

ATTACHMENT C

RADFORD UNIVERSITY
ACADEMIC AFFAIRS ACCREDITATION SUMMARY
TO THE BOARD OF VISITORS
NOVEMBER, 2016

Attached, please find the extensive summary of accreditations, approvals/recognitions, and certifications of the academic programs at Radford University. Whether "accredited," "certified," or "approved," all programs listed have been thoroughly reviewed and vetted by their respective professional organizations or societies. These external recognitions are a direct reflection on programmatic quality and rigor as well as the quality and accomplishment of the faculty. Please note that the listing of accredited programs is preceded by definitions of 'accreditation,' 'certification,' and 'approval' of programs, which are defined below.

Definitions:

Accreditation: "Accreditation is both a status and a process. As a status, accreditation provides public notification that an institution or program meets standards of quality set forth by an accrediting agency. As a process, accreditation reflects the fact that in achieving recognition by the accrediting agency, the institution or program is committed to self-study and external review by one's peers in seeking not only to meet standards but to continuously seek ways in which to enhance the quality of education and training provided."

Certification: Certification means that a program has been reviewed according to specific standards by an authoritative external body and has been certified that it meets those standards. (From the Academy of Criminal Justice Sciences)

Recognition:

Approval: Program approval is provided by a scholarly society or body upon rigorous review of curriculum, instructional delivery, experiential requirements, competency acquisition, among other elements from which programs can be judged 'approved' and listed as such. Often, such programs and disciplines result in "Board Certification" of the graduate in order to practice in the profession.

	Accreditation, Certification, Recognition Approvals FY17							
Department /Unit	**Discipline**	**Accreditation, Certification, Recognition, Approval**	**Accrediting/Certifying/Approval Body or Society (full name and acronym)**	**Level (State, National, etc.)**	**Required/Optional for Employment upon Graduation**	**Licensure (Y or N)**	**Professional Certification**	**Reaffirmation Cycle (ex. year begin to year end)**
Art	Art	Accreditation	NASAD - National Association of Schools of Art and Design	National	Optional	No	No	2016-2021
Art	Art Education	Accreditation	NCATE - National Council for Accreditation of Teacher Education; VDOE - Virginia Department of Education (licensure)	National; State	Required	Yes	No	NCATE 2013-2018
Dance	Dance	Accreditation	NASD - National Association of Schools of Dance	National	Optional	No	No	Pending 9/2016
Dance	Dance Education	Accreditation	NCATE - National Council for Accreditation of Teacher Education; VDOE - Virginia Department of Education (licensure)	National; State	Required	Yes	No	NCATE 2013-2018
Design	Design	Accreditation	NASAD - National Association of Schools of Art and Design	National	Optional	No	No	2016-2021
Design	Design Thinking	Post - Baccalaureate Corticated	NASAD - National Association of Schools of Art and Design	National	Optional	No	No	2016-2021
Music	Music Therapy	Program Approval	AMTA - American Music Therapy Association, Inc.	National	Yes	No	Yes	2012-2022
Music	Music	Accreditation	NASM - National Association of Schools of Music	National	Optional	No	No	2012-2022
Theatre	Theatre	Accreditation	NAST - National Association of Schools of Theatre	National	Optional	No	No	2012-2022
ITEC	Computer Science concentration	Accreditation	Accreditation Board for Engineering and Technology (ABET)	National/international	Optional	No	No	2016-2022
ITEC	Information Science and Systems degree	Accreditation	Accreditation Board for Engineering and Technology (ABET)	National/international	Optional	No	No	2016-2022
COBE	BBA	Accreditation	The Association to Advance Collegiate Schools of Business (AACSB)	International	No	No	No	2012-2017
Sociology	Sociology	Accreditation	Commission on the Accreditation of Programs in Applied and Clinical Sociology (CAPACS)	National	Optional	No	No	2014-2019
Criminal Justice	Public Relations	Certification	Certification in Education for Public Relations (CEPR), Public Relations Society of America (PRSA)	National	Optional	No	Yes	2011-2017
Criminal Justice	Criminal Justice	Certification	Academy of Criminal Justice Sciences	National	Optional	No	Yes	2009-2019

Psychology	School Psychology	Accreditation and Recognition	Council for Accreditation of Educator Preparation (CAEP)	National	Optional	Yes	No	2012-2016
Psychology	School Psychology	Approved	National Association of School Psychologists (NASP)	National	Optional	Yes	No	2012-2016
Psychology	School Psychology	Approved	VA Department of Education (VA DOE)	State	Optional	Yes	No	?
Psychology	Counseling Psychology Doctorate	Accreditation	American Psychological Association (APA)	National	Optional	Yes	No	2012-2016
Nursing	Nursing, BSN	Accreditation	American Association of Colleges of Nursing	National	Yes	Yes	Yes	2014-2024
Nursing	Nursing, BSN	Accreditation	Virginia State Board of Nursing	State	Yes	Yes	Yes	
Nursing	Doctor of Nursing Practice, DN	Accreditation	American Association of Colleges of Nursing	National	Yes	Yes	Yes	2010-2020
OT	Occupational Therapy, masters	Accreditation	Occupational Therapy Accreditation	National	Yes	Yes	Yes	2010/11 - 2017/18
PT	Physical therapy	Accreditation	Commission on Accreditation in Physical Therapy Education	National	Yes	Yes	Yes	2014-2019
Social Work	Social Work BSW	Accreditation	Council on Social Work Education	National	Yes	Yes	Yes	2006-2022
Social Work	Social Work MSW	Accreditation	Council on Social Work Education	National	Yes	Yes	Yes	2006-2023
Communication Sciences and Disorders	Speech-language Pathology, Master	Accreditation	Council on Academic Accreditation of the American Speech-language Hearing Association	National	Yes	Yes	Yes	2008-2016
Counselor Education	Counselor Education - Clinical Mental Health Counseling	Accreditation	Council for Accreditation of Counseling and Related Educational Programs (CACREP)	National	Required	Y	Yes (but not required)	CACREP 2015-2020
Counselor Education	Counselor Education - School Counseling	Accreditation, Approval	Council for Accreditation of Counseling and Related Educational Programs (CACREP) & Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	CACREP 2015-2020
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Art Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018

Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Dance Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Music Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Elementary	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Middle	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Secondary – Social Science	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Secondary – English	Accreditation, Approval, Recognition	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure), National Council of Teachers of English (NCTE)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Secondary – Math	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018

Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Secondary – Science	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – Hearing Impairment, PreK-12	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – General Curriculum K-12	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – Early Childhood Special Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – Adapted Curriculum K-12	Accreditation, Approval, Recognition	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure). Council for Exceptional Children SPA Recognition through the Virginia Consortium for Teacher Preparation in Adapted Curriculum.	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education - Visual Impairment PreK-12	Accreditation, Approval, Recognition	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure). Council for Exceptional Children SPA Recognition through the Virginia Consortium for Teacher Preparation in Adapted Curriculum.	National; State	Required	Y	No	NCATE 2013-2018

Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – General & Adapted Curriculum K-12 (5-year)	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Special Education – General Curriculum K-12 (5-year)	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	Early Childhood PreK-3/Early Childhood Special Education (5-year)	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	M.S. in Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	M.S. in Education Leadership	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	M.S. in Literacy Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018
Educator Preparation Provider (EPP)/School of Teacher Education and Leadership (STEL)	M.S. in Special Education	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	National; State	Required	Y	No	NCATE 2013-2018

Health and Human Performance	Exercise, Sport and Health Education (B.S.)	N/A	N/A	N/A	Required	See below	See below	N/A
Health and Human Performance	Fitness Strength and Conditioning (concentration)	N/A	N/A	N/A	Required	No	Yes (not required)	N/A
Health and Human Performance	- Health Education and Health Promotion (concentration)	N/A	N/A	N/A	Required	No	Yes (not required)	N/A
Health and Human Performance	- Physical and Health Education Teaching (concentration)	Accreditation, Approval	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE, the National Council for the Accreditation of Teacher Education)& Virginia Department of Education (VDOE) (licensure)	State	Required	Y	No	NCATE 2013-2018
Health and Human Performance	- Sport Administration (concentration)	N/A	N/A	N/A	Required	No	No	N/A
Health and Human Performance	- Allied Health Sciences (concentration)	N/A	N/A	N/A	N/A (pregraduate program)	N/A	Yes (not required)	N/A
Health and Human Performance	Athletic Training (B.S.)**	Accreditation, Approval	Commission on Accreditation of Athletic Training Education (CAATE)	National; State	Required	Y	No	CAATE 2010-2020
Nutrition and Dietetics	Nutrition and Dietetics**	Accreditation, Approval	Accreditation Council for Education in Nutrition and Dietetics (ACEND)	National; State	Required	Y	No	ACEND 2013-2020
Recreation, Parks and Tourism	Outdoor Recreation and Leadership	Accreditation	The Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT) & Wilderness Education Association	National	Required	N	No	COAPRT 2014-2021
Recreation, Parks and Tourism	Tourism and Special Events	Accreditation	The Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)	National	Required	N	No	COAPRT 2014-2021
Recreation, Parks and Tourism	Recreation Therapy	Accreditation	The Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)	National	Required	Y	Yes	COAPRT 2014-2021

	** Required by State Council of Higher Education for Virginia (SCHEV) to advance to the Masters level							

ATTACHMENT D

INFORMATIONAL ITEM

ACC

Emeritus Faculty

- Criteria for the awarding of emeritus faculty status are:
  - a minimum of ten years of service to Radford University;
  - evidence of effective teaching; and
  - significant professional contributions.

- The privileges and responsibilities attached to emeritus status include:

  - the use of the library;
  - use of those athletic facilities available to regular faculty;
  - use of a university computer account;
  - a Radford University identification card and special event discounts available with it; and
  - attendance at University functions that are open to all regular faculty.

- Based on recommendations from the Department Personnel Committee, the Department Chair, the College Dean, and the Provost, the President has awarded emeritus status to the following retired faculty members.

Faculty being awarded faculty emeritus status is:

Dr. Raymond Linville	Department of Communication, Sciences and Disorders
Dr. Joe Flickinger	School of Communication

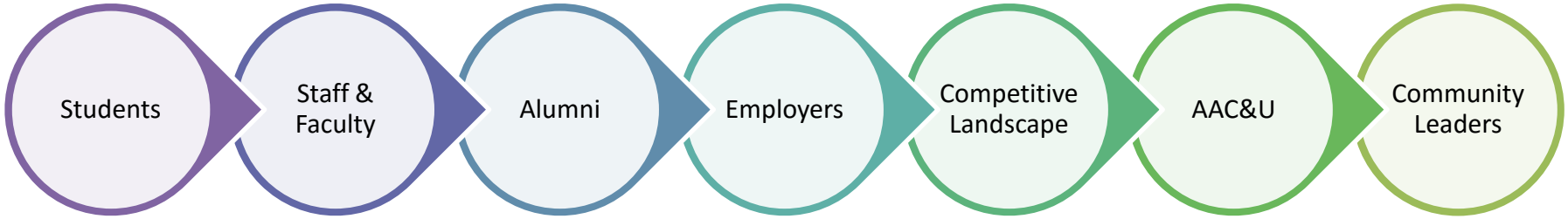
ATTACHMENT E

Discover. Experience. Thrive.

RADFORD
UNIVERSITY

Charting the path to a bold ambition

The Approach



Industry Trends: Competencies

The National Association of Colleges and Employers have identified career readiness competencies that broadly prepare college graduates for a successful transition into the workplace.

- Critical Thinking
- Oral/Written Communication
- Teamwork/ Collaboration
- IT Application
- Leadership
- Professionalism /Work Ethic
- Career Management

Industry Trends: Career Center Trends

Elevated Career Services

- Help students leverage the power of the university network
- Increased institutional influence
- Ability to convene internal and external stakeholders

Movers & Mergers

- Merging career centers with academic affairs, advancement, academic advising or student affairs.
- Consolidating the work based on the strategic needs of the university and consideration of workflow for students

Outcomes

- Focusing on ROI and value of higher education
- Measuring first and lifelong destination data, reputation and engagement of key stakeholders.
- Focusing on assessment and alignment with university strategic goals.
- Using creative and visual ways to display data

Ecosystem Rather than Place

- Moving beyond a bricks and mortar center
- Permeating the institutional culture and experience
- Sharing responsibility of student success broadly

Customized Connections & Communities

- Building connections and communities for a stronger network that promotes students success
- Evolving primary purpose from placement to connectivity internally and externally.

Industry Trends: Recruiting Landscape

Organizations are leveraging technology to optimize cost and maximize reach when recruiting talent.

Virtual
Career Fairs

Digital Interviews

Industry Trends: Competitive Landscape

Universities are transforming their career development experiences to address emerging trends and industry needs.

UVA

- Holistic career development approach
- Uses Handshake platform
- Centralized/Decentralized Hybrid
- **Alumni Mentor Program**
- **Industry Cluster -Career Communities**
- Customized programs based on need of college/audience

Northern Illinois U.

- Customer service based approach
- **Comprehensive employer program**.
- **Employer sponsored events**
- **Website can be converted to English**
- Online resource library

VCU

- **Career Treks – Year-long series of 2-3 hour networking trips**
- Passport to professionalism (Willamette U)
- LEAPD – Leaders and Entrepreneurs Academy for Professional development (graduate students)
- **Workshops geared toward specific populations (i.e. veterans, graduate students)**

Furman

- **The Furman Advantage**
- Student Research
- Alumni Mentor Network
- **$47 million Duke Foundation Grant**
- Internships & Experiential Learning throughout Furman tenure

Industry Trends: Talent Development Focus

Right Management

- Talent development model based on industry
- Considers themselves as global talent experts
- Leverages multiple tools, media and technology to deliver content.
- Relationship lasts a lifetime
- Website is focused, customer centric and impactful.
- www.right.com

Lee Hecht Harrison

- Provides holistic job search solutions.
- Leverages technology, industry experts and content to help clients succeed in their search.
- Segments content based on experience and level (i.e. executives, mid management, etc.)
- Hosts virtual industry based career fairs and information sessions.
- Has extensive alumni database for clients –
- Uses community roundtable discussions to help clients job search. – expand network
- www.lhh.com

Korn Ferry

- Leadership development throughout career
- Leverages career/industry consultants
- Conducts proprietary research for industry
- Comprehensive development literature (Lominger)
- Created the Korn Ferry Institute (development focused)
- "Where employees at every level impact success."
- Because everyone should have the opportunity to reach their full potential."
- www.kornferry.com

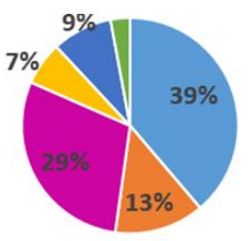
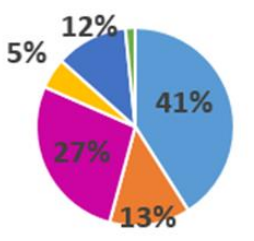
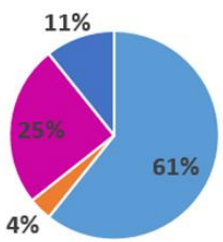
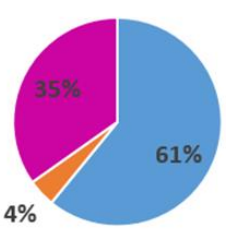
Radford University: Current Perception

Radford University has the opportunity to innovatively transform the Career Center and it a strategic advantage.

Radford University: Outcomes

RADFORD UNIVERSITY
Career Center

CAREER OUTCOMES: Radford University - At Graduation [1]

	Class of May 2015	Class of May 2016
Overall Career Outcomes Rates		
Career Outcomes Rate[2]	61%	66%
Undergraduate		
Masters		
	Full Time - Employed; Part Time - Employed; Unemployed - Seeking; Graduate School -Seeking; Graduate School - Enrolled; Other	
Median Income		
$	Undergraduate: $35,000 Masters: $47,500	Undergraduate: $38,000 Masters: $40,000
Satisfaction with Occupational Outcome		
	Undergraduate 79% Masters: 80%	Undergraduate: 80% Masters 92%

1 Primary Data Source: The Outcomes Survey; Survey Response Rate At Graduation May 2015 (15%); May 2016 (27%)
2 Career Outcomes Rate: Includes Undergraduate Students with a Post-Graduate Plan: Employment (Full Time, Part Time), Graduate School, Military, or Volunteer Service. No Response/Not Seeking < 3% not indicated.

Our Ambition

To create an innovative place that fosters career and talent development. Where students can collaborate with career consultants, employers, faculty and alumni to help them discover their career path, gain relevant experience, and be more successful on their career journey. Ultimately, we want every Highlander to leave Radford inspired, equipped and confident to make their distinct contribution to the world.

What we value:

Passion

Community

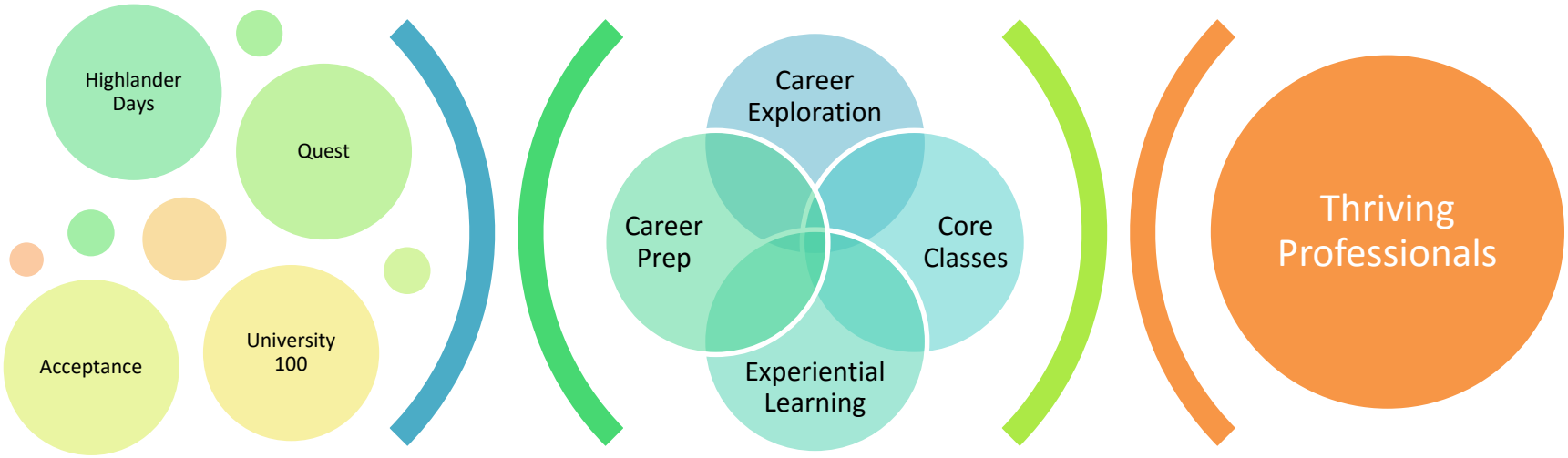
Collaboration

Innovation

Agility

Our Commitment

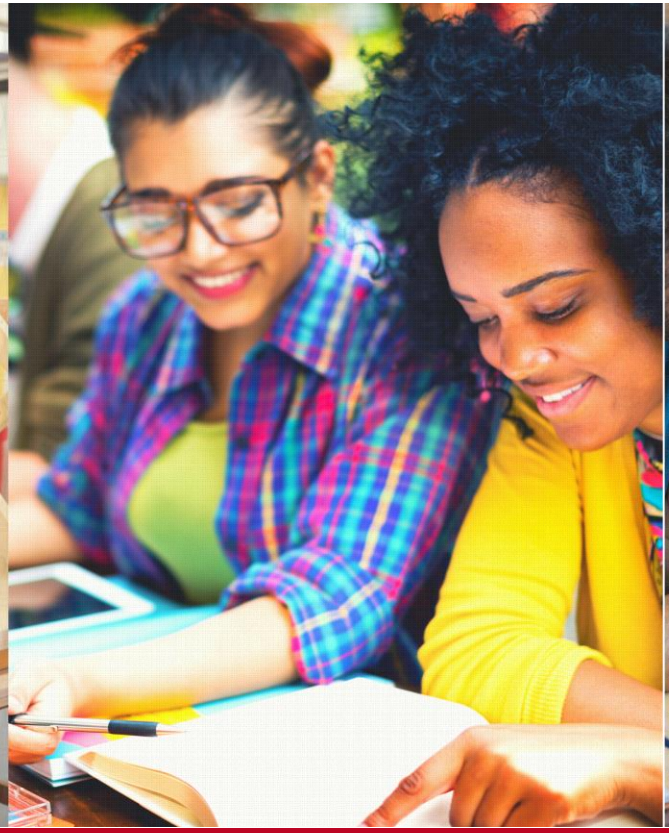
To help organizations and individuals thrive. Our collaborative journey begins during the recruiting process and lasts a lifetime.



Strategic Focus Areas

Experiential Learning

Talent Development



Connected Communities

Experiential Learning

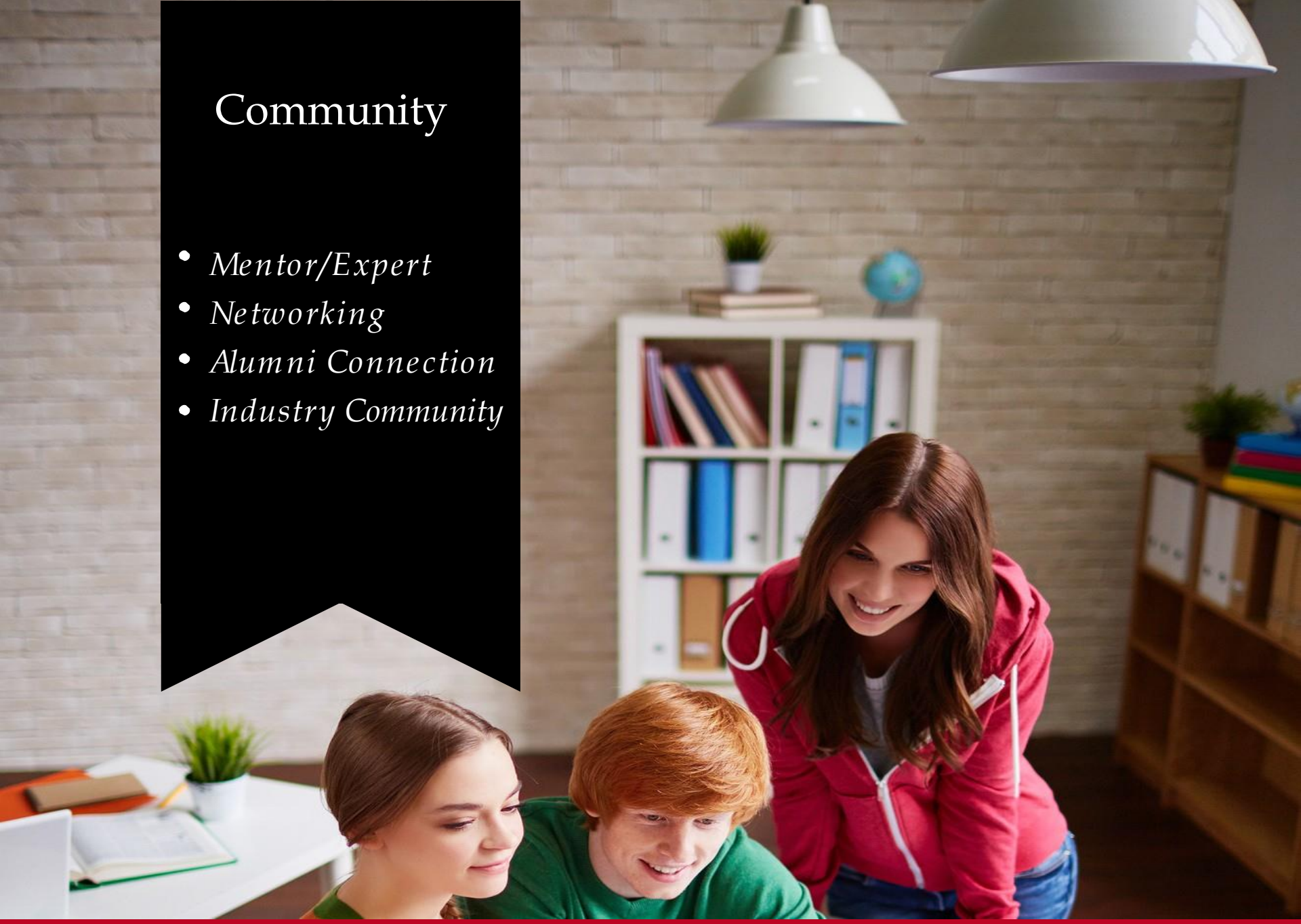
- *Internships*
- *Job Shadow*
- *Career Trek*
- *Research*
- *Study Abroad*
- *Work study*

Talent Development

- *Career Events*
- *Customized programs Workshops*
- *Curriculum*
- *Integration Development Plans*

Community

- *Mentor/Expert*
- *Networking*
- *Alumni Connection*
- *Industry Community*



Community

- *Veterans*
- *Student Athletes*
- *Transfer Students*
- *International Students*

Employer Relations

- *Tiered program*
- *Modified Career Fair Fee Structure*
- *Internship Consultation*
- *Event Sponsorship*
- *Guest Blogger*

Communication & Technology Innovation

Digital e-zine

blog

purple briefcase™

handshake

GRADLEADERS

- Expand digital and social media communication
- Upgrade technology platform

The Journey: 2016-2022

2016

Strategy

*Develop Strategic Plan

Positioning

*Create new branding strategy

*Develop communication protocol & calendar

People

*Introduce new structure

*Conduct staff development

*Expand student assistants

Programs

*Develop new program structure

*Recommend new career service platform -

*Develop employer program

2017

Strategy

*Open new Career Center

Positioning

*Launch new brand strategy

People

*Expand staff - ER | CC | Mktg. | CA

Programs

*Launch new program structure (*discover. experience. succeed*)

*Test "Intern for A Day" program

*Launch new career service Platform - Handshake

*Launch Phase I of employer program (career fair, sponsor)

*Test "on demand" career development content.

2018

People

*Expand staff (Operations team)

Programs

*Expand program offering

*Launch "Intern for A Day" program

*Test expansion of *Industry Week* trips

*Test industry "alumni mentor circles"

*Launch phase II of employer program (tiered employer segmentation)

*Launch "on demand" delivery of career development content

2019

Positioning

*Refine messaging & marketing executions

Programs

*Expand Industry week

*Launch alumni mentor circles

Expand "on demand" delivery content

*Test community partnership programs

*Expand tiered employer program