Graduate Curriculum Committee Report - October 20, 2022

Graduate Council

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Members present: Avigail Sachs (Chair), Khalid Alshibli, Mehmet Aydeniz, Amy Cathey, Leighton Chappell (Graduate Student Senate), Moonhee Cho, Jennifer First, Lisa King, Sibyl Marshall, Kim Newkirk, Paul Palies,

Also in attendance: Herbert College of Agriculture, John Stier; Haslam College of Business, Jama Summers; College of Communication and Information, Virginia Kupritz, Beth Foster, Devendra Potnis; Tickle College of Engineering, Ozlem Kilic; Graduate Council Chair, Laurie Meschke; VOLS Online, Josh Steele; Graduate School, Carl Collins and Catherine Cox

Avigail Sachs called the meeting to order at 3:30 p.m.

**Curriculum proposals submitted for discussion:**

1) **Herbert College of Agriculture**
   a) Course changes: added 5 courses, revised 0 courses, dropped 0 courses
   b) Program changes: Add new major and degree (pending THEC approval)
      • Agricultural Leadership, Education and Communication, PhD

Proposals were discussed. There was an edit to two CCI courses listed under the Required Courses heading. With the slight edits, the amended proposal will come forward for a vote.

*Unanimous vote to approve course changes and new PhD program.*

2) **Haslam College of Business**
   a) Course changes: added 14 courses, revised 10 courses, dropped 0 courses
   b) Program changes: Add new major and degree (pending THEC approval)
      • Business Cybersecurity, MS

Proposals were discussed. For the new Business Cybersecurity major, there was a question asking if business would support other units that may, in the future, create a cybersecurity major?

J. Summers: Yes, we totally support interaction across colleges. We spoke with the chair of the Computer Science programs to invite their students to potentially take some our courses as their electives to leverage the expertise across different colleges. Our major in Business Cybersecurity is a specific program for companies that are looking for experts in business processes and business strategy with enough technical foundation to be that intersession. Cybersecurity is across the industry and none of us can claim to have a hold or claim on it. In our course titles and descriptions, we made sure both students and recruiters would know that the courses are business focused. Our courses are not the deep dive to be the systems architect or network engineer. Our courses give students the knowledge to know what the systems architect and network engineer are talking about in order to communicate it to the businesspeople. Our courses are more a breadth versus depth teaching. The students will get the foundational knowledge but will not be the technical expert. Also, there is not a prerequisite on this program for an undergraduate technical degree.

Question was asked about choosing a STEM CIP code.

J. Summers: We discussed this before submitting to THEC. There is not a business CIP code that fits the new major. We chose STEM because there is a technical knowledge aspect to the program. The CIP code we chose includes cybersecurity assurance and auditing. The actual description includes risk management and security auditing, which our accounting program currently has. We looked at Peer
business programs and many now are using STEM CIP codes. Also, our Information Management faculty have the expertise to deliver the material for our courses.

Two slight edits were requested for the introductory paragraph of the program description.
1) To help define this new major is a business-focused program, insert the word “business” in front of the word “cybersecurity” – this involved 3 inserts.
2) Move the last sentence of the introductory paragraph up to become the first sentence of the program description paragraph.

With the slight edits, the amended proposal will come forward now as a vote.

Unanimous vote to approve the course changes and new master's program.

3) **College of Communication and Information**
   a) Course changes: added 3 courses, revised 0 courses, dropped 1 course
   b) Program changes:
      i) Revised Communication and Information Major, MS. Revised required courses because of the dropping of the CCI 540 course.
      ii) Add new certificate: School Librarianship

Proposals were discussed. There were slight edits on the proposal to revise the Communication and Information Major – confirming the concentration courses and the elective courses.

For the new School Librarianship Certificate – under the Academic Standards heading, edit to remove “A minimum 3.00 GPA must be earned in all certificate courses.” Edit and change wording to: “A grade of B or better must be earned in all certificate courses.”

With the slight edits, the amended proposal will come forward now as a vote.

Unanimous vote to approve the course changes and new certificate.

4) **College of Law**
   a) Course changes: added 0 courses, revised 2 courses, dropped 0 courses
   b) Program changes: Revised requirements to the Law Major, JD.

No questions or discussion on the Law proposals, this will come forward for a vote.

Unanimous vote to approve the course changes and the program changes.
AGENDA

Herbert College of Agriculture
Haslam College of Business
College of Communication and Information
College of Law

+ Indicates new major / degree / certificate being added
I. COURSE CHANGES

DEPARTMENT OF AGRICULTURAL LEADERSHIP, EDUCATION AND COMMUNICATIONS

(ALEC) Agricultural Leadership, Education and Communications

ADD

ALEC 600 Doctoral Research and Dissertation (3 - 15)
Grading Restriction: P/NP only.
Repeatability: May be repeated.
Registration Restriction(s): Minimum student level – graduate.

ALEC 612 Diffusion of Innovations (3) Will focus on the diffusion of innovations model posited and formalized by Everett M. Rogers to facilitate the student’s understanding of change as a socio-cultural-technical process. Special attention will be given to case studies and other examples of innovation, diffusion, and change that are especially applicable to the agriculture, food, fiber, and natural resources systems, as well as society at large. In addition, the course will emphasize the student’s role as a change agent both now and in their future professional life.

ALEC 613 Strategies for Success as a University Faculty Member (3) Roles and responsibilities of university faculty members in agriculture and natural resources; performance expectations; strategies for successful tenure and promotion; planning and executing teaching, research, and extension programs based upon formal position assignments.

ALEC 630 Special Topics in Agricultural Leadership, Education and Communications (1-3) Current issues.
Repeatability: May be repeated. Maximum 9 hours.
Registration Permission: Consent of instructor.

ALEC 693 Special Problems in Agricultural Leadership. Education and Communications (1-4) Special research and/or special reports based on supervised independent study.
Repeatability: May be repeated. Maximum 6 hours.
Registration Permission: Consent of instructor.

Rationale: The ALEC department will add 600-level courses for the Ph.D. program. Impact on other units: None. Financial impact: Minimum as 1.0 teaching FTE have been recently added to the department.
II. PROGRAM CHANGES

DEPARTMENT OF AGRICULTURAL LEADERSHIP, EDUCATION AND COMMUNICATIONS

+ ADD NEW MAJOR AND DEGREE

Major: Agricultural Leadership, Education and Communication
Degree: Doctor of Philosophy

In the 2023-2024 Graduate Catalog, add heading, text, and requirements for the Doctor of Philosophy degree with a major in Agricultural Leadership, Education and Communications (pending THEC approval).

Agricultural Leadership, Education and Communication Major – Doctor of Philosophy (Ph.D.)

*This program is pending approval from the Tennessee Higher Education Commission. Students will be admitted to the major and degree only after THEC approves the program.

The Herbert College of Agriculture offers the Doctor of Philosophy degree (Ph.D.) in Agricultural Leadership, Education and Communication. The proposed Ph.D. program will better meet the needs of qualified candidates in the areas of teaching and learning, leadership, communications, youth development, and Extension. The proposed will enable the delivery of excellent focused education along with in-depth research, leading to more rigorous student training, higher student attainment, and greater research productivity.

As one of the eight departments in the Herbert College of Agriculture, the mission of ALEC is to serve Tennesseans, our nation, and the world by: equipping current and future generations of educators, leaders, and communicators through agriculture; establishing strategic partnerships with communities and industry; seeking solutions through scholarship; and developing and delivering innovative outreach and Extension programs that deliver Real. Life. Solutions. The department fulfills its mission through innovative research, knowledge-based outreach, and excellence in teaching, while adhering to core values of integrity, equality, and respect. The proposed Ph.D. program will further the mission of UT, Knoxville, Herbert College of Agriculture, and of ALEC by providing graduate training in the high-need career paths in the nationally recognized disciplines of teaching and learning, leadership, communications, youth development, and Extension thereby enhancing higher education opportunities and research productivity of the department and of UTK.

Agricultural Leadership, Education and Communication Major, PhD

A Doctor of Philosophy degree with a major in Agricultural Leadership, Education and Communication in the Department of Agricultural Leadership, Education and Communications (ALEC). Coursework in teaching and learning, leadership, communications, youth development, Extension, research methods, and statistics will serve as the basis for this degree program. See the ALEC Department’s website for a listing of faculty and their specific research focus areas.

Campus Code
Knoxville Campus
Distance Education Campus

Admissions Standards/Procedures
To the Office of Graduate Admissions submit an online application, application fee, and official transcripts. The online application procedure will also direct the applicant to submit an updated resume, three letters of reference (or three Graduate Rating Forms) from persons capable of assessing the applicant's suitability for graduate work, and a statement of professional goals, research interests, and reasons for applying to ALEC. In the statement letter and application, the area of interest and desired major professor must be indicated.

The Graduate Record Examination (GRE) is recommended but not required for admission to the program. Scores from the general GRE test are given different weights by various faculty advisors, so applicants are encouraged to directly contact their desired faculty advisor to determine the importance of this indicator to the success of their application.

Academic Standards
- Students must assume responsibility for knowledge and compliance with Graduate School and department requirements in their degree program, as described in the current Graduate Catalog and ALEC’s Graduate Student Handbook.
- If research progress for the dissertation is deemed insufficient, the major advisor in consultation with the graduate committee may recommend probation with specific goals set for a specified time or termination.
The student’s program of study must be approved by their advisory committee and must comply with the requirements of the Graduate Council.

See the Degree Program Requirements/Doctoral Degree section in the Academic Policies and Requirements for Graduate Students section for additional information.

Concurrent Master’s Degree Program
In exceptional cases where an individual is admitted to the PhD program having a BS, the individual will be encouraged to complete a MS degree in the continuum of PhD program efforts. Currently enrolled UT doctoral students who plan to complete the master’s degree while maintaining enrollment in the doctoral program must submit a Request for Concurrent Master’s Degree form to the Graduate School two weeks prior to the deadline for submission of the graduation application for the master’s degree. To earn the concurrent master’s degree all requirements must be met at the University of Tennessee.

Credit Hours Required
• 48 graduate credit hours beyond the Master’s degree, or
• 72 graduate credit hours beyond the baccalaureate degree

Required Courses
• Of the required graduate credit hours, 48 must be in courses numbered greater than 500 (including 24 credit hours of course ALEC 600; e.g., ALEC 510-593, ALEC 612-693)
• 6 credit hours of courses at the University of Tennessee, Knoxville, numbered greater than 600 (e.g., ALEC 612-693)
• A minimum of 12 credit hours of courses in graduate level research methods and statistics (e.g., STAT 537, STAT 538, CCI 643, CCI 644, ESM 559, ELPS 615, ELPS 616)
• 24 credit hours of ALEC 600
• See the Degree Program Requirements/Doctoral Degree section in the Academic Policies and Requirements for Graduate Students section for additional information.

Non-Course Requirements
• The student and the major professor will select a minimum of three additional faculty, holding the rank of assistant professor or above, to serve on the student’s doctoral committee. The major professor and two committee members must be approved to direct doctoral research by the Graduate Council. At least one member of the committee must be from outside the department. The doctoral committee must be formalized by the end of the second semester of graduate study.
• Research Ethics training is required, which may be achieved through (CITI RCR) training, as evidenced by presenting a valid CITI RCR certificate to the EPP Director of Graduate Studies or their designee.
• Satisfactory preparation of a written dissertation proposal and an oral defense to the student’s committee are required. These must be completed before enrollment in ALEC 600. The candidate will be tested on his/her knowledge of the proposed dissertation.
• Each doctoral student must pass a comprehensive examination as required by the Graduate Council. Both written and oral sections of the comprehensive examination must be passed. Successful completion indicates that, in the judgment of the faculty, the doctoral student can think analytically and creatively, has a comprehensive knowledge of the field and the specialty, knows how to use academic resources, and is deemed capable of completing the dissertation.
• Satisfactory preparation of a written dissertation and passing an oral defense of the dissertation to the student’s doctoral committee are required.

Rationale:
In August 2016, the ALEC Department underwent a comprehensive external review. The review team was asked to address, among other items, the potential for a Ph.D. program in the department. In its report, the review team concluded:

Pursue research FTE’s for the department. This will enhance the unit in several ways. It could strengthen the graduate program; allow greater participation in grants; provide recognition of ALEC’s contribution to the research mission of UTIA; increase resources, collaboration, and accountability for scholarship; and enhance the department’s national and international reputation. Develop a timeline for adding a PhD program. This is a longer term but achievable goal. The department has an opportunity to develop a unique program focused on extension education and youth development.

Follow-up discussion with UT/UTIA administrators has also encouraged the initiation of a Ph.D. program in the department, which was also identified during the department’s strategic planning session held in 2020. Based on the 2016 review and 2020 strategic planning session, the ALEC department began the beginning processes of developing the LON. In August 2021, the ALEC department underwent another comprehensive external review, which strongly supported the Ph.D. initiative. In addition to the external reviews and strategic planning session, program design, course requirements and delivery, implementation dates, demand and need for the program, student recruitment strategies, and similar aspects of the new program have been discussed with peers, prospective students, and external constituency groups. These individuals are supportive and enthusiastic about the new program. A feasibility study was assessed by reviewing current literature related to ALEC and surveying former students and regional and state employees working in ALEC related professions.

School-Based Agricultural Education

One area of need is school-based agricultural education as there is a strong need for agricultural education programs throughout the country. The National Agricultural Education Supply and Demand Study (Smith, Lawver, & Foster, 2021) documented:
As of September 15, 2020, state supervisors reported a total of 8,466 high school-based agricultural education programs employing 13,253.8 teachers. Of the total number of teachers, 1,476 were considered new hires in school-based agricultural education (SBAE). Additional teachers were still needed to meet demand in school-based agricultural education; state supervisors reported 51 full-time and 2 part-time vacancies as of September 15, 2020. Further, substantial growth and expansion in school-based agricultural education occurred in 2020-2021 with 242 new positions and 140 new programs added. Despite program growth, 31 states reported a loss of programs or positions. A total of 77 positions were lost and 50 programs closed. Respondents reported a total of 673 school-based agricultural educators who taught in the 2019-2020 school year would not be returning to the classroom in 2020-2021.

One reason school-based agricultural education teachers do not return to the classroom is compensation, as higher salaries can be found within and outside of the agriculture industry with the skills ALEC graduates possess. Typically, certified teachers are paid based on years of experience and degrees held. An ALEC Ph.D. would complement our master’s degree and provide an additional opportunity for certified school-based agricultural education teachers to advance their professional skills and compensation value as a classroom teacher. The potential for higher compensation may encourage more school-based agricultural education teachers to remain in the classroom. This is relevant, because according to the National Academies of Sciences, school-based agricultural education is one key element to facing the complicated set of problems and opportunities before us as climate change and the “growing world population exerts a looming pressure on the global food supply.”

Current and Former Student Interest in a Ph.D. Program in ALEC

The Ph.D. program will be the only Ph.D. program in Tennessee with emphasis in Agricultural Leadership, Education, and Communication. The other programs in Tennessee only offer Bachelor of Science and Master of Science degree programs. The department receives approximately 20 requests per year about the opportunity to complete a Ph.D. in the department. These inquiries come from within Tennessee and from various individuals in the southeast. In order to substantiate the requests, a survey was sent out to former and current ALEC MS students related to the need for a Ph.D. program. The results can be found in Table 1 listed below. In addition, open-ended comments related to the Ph.D. program were requested and a representative sample of those comments can be found in Table 2. Overall, current and former students agreed a Ph.D. program in ALEC is warranted and needed.

Table 1.
Interest in Ph.D. Program in the Department of Agricultural Leadership, Education and Communications (ALEC) from Current and Former Students

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe UT should offer a doctoral program in ALEC.</td>
<td>79</td>
<td>1.3% (1)</td>
<td>0.0% (0)</td>
<td>17.7% (14)</td>
<td>12.7% (10)</td>
<td>68.4% (54)</td>
</tr>
<tr>
<td>I would be interested in learning more about this program.</td>
<td>79</td>
<td>2.5% (2)</td>
<td>3.8% (3)</td>
<td>12.7% (10)</td>
<td>30.4% (24)</td>
<td>50.6% (40)</td>
</tr>
<tr>
<td>I think others I know would be interested in exploring this program.</td>
<td>79</td>
<td>1.3% (1)</td>
<td>1.3% (1)</td>
<td>20.3% (16)</td>
<td>32.9% (26)</td>
<td>44.3% (35)</td>
</tr>
<tr>
<td>A new doctoral program at UTIA would raise UT Knoxville’s visibility.</td>
<td>79</td>
<td>1.3% (1)</td>
<td>2.5% (2)</td>
<td>8.9% (7)</td>
<td>26.6% (21)</td>
<td>60.8% (48)</td>
</tr>
<tr>
<td>If offered, I believe this program would be successful.</td>
<td>79</td>
<td>1.3% (1)</td>
<td>1.3% (1)</td>
<td>17.7% (14)</td>
<td>24.1% (19)</td>
<td>55.7% (44)</td>
</tr>
</tbody>
</table>

Sample of Written Comments from Current and Former Students on a PhD Program in the Department of Agricultural Leadership, Education and Communications

By offering these terminal degrees, I feel the ALEC reach will be broadened throughout the state and region allowing students to be more active and more immersed in research-based initiatives.

It is necessary at an R1 university.

Having an accessible doctoral program at the flagship campus within the state would make higher education more easily available to lower SES students.

Program should have an on-line option to attract potential students from around the world.

I might get my PHD if offered.

Leadership, education and communication are important to agriculture and need experts to help advance the agriculture industry. A new PhD program will help do that.

This program would be a major asset to ALEC students that want to further their studies in their specific interest concentrations (ex. ag leadership, ag education, ag extension education, ag communications, etc.).

Local and Regional Need/Demand

The Bureau of Labor Statistics (BLS) provides estimates of occupational employment and annual wages based on data collected from employers. In the U.S. in 2019, the median wage for workers with an agriculture degree is $52,000 and 42% of those employed are
in occupations requiring at least a bachelor’s degree, and 27% of those employed have an advanced degree. While the metrics do not address the specific fields in agricultural leadership, education, and communications, there are many occupations, both existing and developing, that require the understanding of how agriculture and natural resources impact lives through the quality and abundance of our food supply, personal health, the environment, the economy, and national security. Continued education, research, innovation, and leadership development in the areas of agriculture and natural resources directly impacts our local and regional economy. Therefore, the Ph.D. program in ALEC can provide an opportunity to educate individuals for education and leadership positions to help meet the local and regional demand in agriculture and natural resources and related occupations.

Employer Need/Demand

The demand for graduates in this field exceeds the annual production of graduates from existing programs. Over the last year, there have been several new hires of assistant professors and the demand for more assistant professors is growing due to increases in retirements. According to Employment Opportunities for College Graduates report, there will be a 10.8% increase in the U.S. labor force between 2012-2022 due to job growth and openings from retirements. Also, according to a report commissioned by the United States Department of Agriculture, approximately 56% of all food, agriculture, renewable natural resources and the environment-related position openings between 2020-2025 are expected to be in education, communication, government services, management, and business. Therefore, it is imperative to continue to educate and develop our future workforce, because there are excellent job opportunities in teaching, research, and administration in private and public sectors, universities, public schools, community colleges, and agricultural and related industries. A survey conducted of several regional and state employees in Tennessee (e.g., Extension agents, County Extension Directors, UT staff, UT administrators, agricultural education teachers) revealed that a Ph.D. in ALEC would be extremely beneficial to the workforce and is needed (see Table 3). In addition, employers provided written comments related to the needs and benefits of having a Ph.D. program in ALEC (see Table 4).

Table 3.

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe UT should offer a doctoral program in ALEC.</td>
<td>113</td>
<td>1.8% (2)</td>
<td>0.0% (0)</td>
<td>19.5% (22)</td>
<td>28.3% (32)</td>
<td>50.4% (57)</td>
</tr>
<tr>
<td>I would be interested in learning more about this program.</td>
<td>113</td>
<td>5.3% (6)</td>
<td>9.7% (11)</td>
<td>23.9% (27)</td>
<td>21.2% (24)</td>
<td>39.8% (45)</td>
</tr>
<tr>
<td>I think others I know would be interested in exploring this program.</td>
<td>113</td>
<td>4.4% (5)</td>
<td>0.9% (1)</td>
<td>14.2% (16)</td>
<td>47.8% (54)</td>
<td>32.7% (37)</td>
</tr>
<tr>
<td>A new doctoral program at UTIA would raise UT Knoxville's visibility.</td>
<td>113</td>
<td>2.7% (3)</td>
<td>1.8% (2)</td>
<td>15.9% (18)</td>
<td>35.4% (40)</td>
<td>44.3% (50)</td>
</tr>
<tr>
<td>If offered, I believe this program would be successful.</td>
<td>113</td>
<td>1.8% (2)</td>
<td>0.0% (0)</td>
<td>16.8% (19)</td>
<td>40.7% (46)</td>
<td>40.7% (46)</td>
</tr>
</tbody>
</table>

Table 4.

Sample of Written Comments from Employers on the Needs and Benefits of a Ph.D. Program in the Department of Agricultural Leadership, Education and Communications (ALEC) from Employers

If implemented, it would enable the organization an opportunity to dive deeper into leadership concepts which would improve Extension.

It would be great to have research based to help move ALEC and extension to a more forward thinking.

This doctoral degree could boost the reputation for UTIA. This would also boost the reputation of Extension Agents and Agriculture teachers in Tennessee. The program should provide an opportunity for well-rounded development in youth development, FCS, Agriculture, and community economic development.

I have personally been waiting to see something like this for the past 10+ years. The ability for this program to attract quality candidates and to supplement currently established programs is much needed.

I believe an online doctorate program would be a great way for working individuals to complete it easier.

A PhD program would be such a positive impact for agricultural knowledge across not only the state of Tennessee, but across the nation. Even though I live in Ohio, I have had nothing but positive interactions through my Master’s program at UT. If a PhD were possible to be received at UT I would definitely be applying. Also, if by chance the PhD were somehow feasible to be completed online, I feel it would breed nothing but success for the University of Tennessee.

As a current extension agent who has thought of getting my PhD I would absolutely be interested if it was offered in ALEC.

I personally hope to obtain a PhD in ALEC, however, with no current program I was disappointed as I’d like to stay in my current position while obtaining it.

State of Tennessee Marketing-Related Job Posting Data (Emsi)

Within the scope of Agricultural and Extension Education Services (ALEC CIP Code Title), the most posted job titles and occupations in the southeast region of the United States include Extension Agents, Order Management Specialists, Smart Home Experts, County
Extension Agents, Extension Agricultural Agents, Youth Development Professional and Family and Consumer Science Teachers (Emsi Q1 Data Set, March 2022). Of the southeastern states, Tennessee has had the highest number of job postings in the field of Agricultural and Extension Education Services and the most sought out skills include leadership, communications, management, planning, and research. The University of Tennessee, Knoxville, currently ranks fourth among the top regional institutions supplying the labor market with workers employed in the occupations above (Emsi Q1 Data Set, March 2022). With the additional program, the University of Tennessee will be in a stronger position to prepare a greater number of individuals to supply the demonstrated need.

Economic Value of College Majors

Georgetown University’s Economic Value of College Majors database reports wages for individuals as a function of educational degrees attained. Wage data for individual employees with “general agriculture” degrees are reported in Table 5 as a function of degree type (i.e., bachelor’s versus graduate) and region (national vs. TN state data). As the table reveals, compared to those with a bachelor’s degree only, median wages for an individual with a graduate degree in agriculture are 28.3% ($15,000) higher nationwide. This wage premium is indicative of the value employers place on the skills individuals with advanced agriculture degrees bring to their jobs and thus offers evidence of employer need for such skills.

Table 5.

<table>
<thead>
<tr>
<th>National Wages</th>
<th>State of Tennessee Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25th Percentile</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>$37,000</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>$45,000</td>
</tr>
</tbody>
</table>

Future Sustainable Need

The proposed Ph.D. program will target middle and high school agricultural education and science teachers, community college educators, agribusiness professionals, Extension agents, communication specialists, administrators, and agency directors. These target groups will be sought in Tennessee and throughout the United States. Not all of these individuals would be interested in coming to the Knoxville campus as a full-time student; however, they will have the option to complete the degree by utilizing a hybrid approach consisting of online and on-campus courses. With the increasing availability of online courses at UT, all but two required courses can currently be completed online, and we envision offering a completely online option as more online courses become available. An online completion option will complement ALEC’s online BS and MS programs and increase access to higher education in Tennessee and create additional opportunities for distressed counties and underserved communities by allowing individuals to stay employed during their Ph.D. program.

Impact on other units:

There are no programs in the same CIP classification at the same degree level offered at any other public institutions in Tennessee, nor are there similar programs within UT Knoxville. The proposed program will be offered only at the University of Tennessee, Knoxville. The proposed program will provide equal opportunity to all students irrespective of color, race, gender, or national origin.

Financial impact:

Financial costs will be minimal as the ALEC department has acquired adequate resources and faculty to administer the Ph.D. program.
I. COURSE CHANGES

BUSINESS ADMINISTRATION (BUAD)

ADD

BUAD 589 Immersion Experience for Online Students (0) Provides an orientation and networking opportunity for students in enrolled in Haslam College of Business online programs.
Registration Restriction: Must be graduate student in the Haslam College of Business.
Rationale: Course fills a need for graduate students in the college. Financial and staffing impact: None.

DEPARTMENT OF ACCOUNTING AND INFORMATION MANAGEMENT

(INMT) Information Management

ADD

INMT 561 Foundations of Business Cybersecurity (3) Provides a foundational knowledge of concepts, theories, technologies, and procedures underlying the protection of information assets. Students will work with a variety of tools to enhance their knowledge and technology skills in this ever-changing area.
Registration Restriction(s): Must be online student and Master of Science – Business Cybersecurity major.
Comment(s): or permission of the instructor.

INMT 562 Security Governance and Ethics (3) Designed to help students to gain an understanding of the regulatory environment, governance, and ethical issues relating to cybersecurity. The objective is for students to understand how an organization effectively controls information technology (IT) security and manages associated ethical issues.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 563 Business Communications and Network Security (3) Provides a foundational knowledge of communication system and network design. Builds on this foundation to define and identify internal and external sources of business network security risk. Students will work with various tools, techniques, and methods to assess communication networks and develop and communicate mitigation strategies to reduce network and overall cybersecurity risk.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 564 Business Information Asset Security (3) Introduces the components, processes and techniques associated with protecting organizational information assets. Will work with a variety of modern database management and monitoring tools to develop business and technical skills related to management and protection of a broad range of information assets.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 565 Risk Management and Business Continuity (3) Introduces the process and techniques of corporate risk management and business continuity, including its major activities such as risk assessment, risk mitigation, and risk control. Will learn how to assess, develop, and implement effective risk management practices to meet business continuity objectives.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 566 Organizational Security Management (3) Provides students with an understanding of the human and organizational aspects of security and methods to mitigate risks associated with these areas. Will work with various tools, techniques, and methods to assess organizational security practices and develop and communicate strategies to reduce overall cybersecurity risk.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.
INMT 567 Business Security Architecture and Systems (3) Covers the fundamentals of designing and implementing a multi-tier security architecture, focusing on the processes and tools used to protect assets and resources housed on organization servers. Students will work with a variety of tools and techniques to develop knowledge and technical skills related to the assessment, design, and management of an organization’s security architecture.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 568 Business Software Development Security (3) Designed to help students to gain fundamental knowledge of secure software development practices. Objective is for students to understand how an organization formulates and manages software development processes where security is built in and ensures confidentiality, integrity, and availability in software applications. Will work with various tools, techniques, and methods associated with the development, implementation, and management of organizational software applications.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 569 Emerging Topics in Business Cybersecurity (3) A seminar designed to study technology innovations that are impacting (disrupting and transforming) the dynamic field of business cybersecurity. Will focus on the potential opportunities and risks associated with currently trending emerging technologies.
(RE)Corequisite: INMT 561.
Comment(s): or permission of the instructor.

INMT 570 Business Cybersecurity Capstone (3) A capstone project course, enabling students to integrate their learning from prior coursework. Will work on a broad array of contemporary cybersecurity problems and issues experienced by organizations. Will have the opportunity to assess, analyze, and solve cybersecurity problems and present their results and solutions as aspiring cybersecurity managers.
(RE)Corequisite: INMT 561 and INMT 562 and INMT 563 and INMT 564 and INMT 565 and NMT 566 and INMT 567 and INMT 568 and INMT 569.
Comment(s): or permission of the instructor.

Rationale: New course ADDs above will be required of students enrolled in the online MS in Business Cybersecurity (MSBC). Impact on other units: None expected. Financial impact: Cost of instruction included in cost of MSBC degree program, to be offset by tuition revenue generated by this program. Additional documentation: None required. All courses listed above are DE courses.

DEPARTMENT OF FINANCE
(FINC) Finance

REVISE TO ADD (RE)PREREQUISITE

FINC 525 Investment Analysis and Portfolio Management (3)
(RE)Prerequisite(s): FINC 507.

Rationale: Ensures students have appropriate background knowledge. Impact on other units: None. Financial impact: None.

REVISE (RE)PREREQUISITE

FINC 512 Problems in Financial Management (3)
(RE)Prerequisite(s): FINC 507.

Formerly: (RE)Prerequisite(s): Business Administration 518.

FINC 535 Financial Markets and Institutions (3)
(RE)Prerequisite(s): FINC 507.

Formerly: (RE)Prerequisite(s): Business Administration 518.

FINC 540 Fixed Income Analysis and Markets (3)
(RE)Prerequisite(s): FINC 507.

Formerly: (RE)Prerequisite(s): Business Administration 518.
FINC 545  Financial Derivatives (3)
(RE)Prerequisite(s): FINC 507.
Formerly: (RE)Prerequisite(s): Business Administration 518.
Rationale: For revisions above, BUAD 518 no longer exists. Impact on other units: None. Financial impact: None.

FINC 555  Financial Management: Theory and Practice (3)
(RE)Prerequisite(s): FINC 507.
Formerly: (RE)Prerequisite(s): FINC 505, and FINC 506, and FINC 507 and BZAN 507.

REVISE TO DROP (DE) PREREQUISITE AND ADD (RE)PREREQUISITE

FINC 571  International Finance (3)
(RE)Prerequisite(s): FINC 507.
Formerly: (DE)Prerequisite(s): Business Administration 518.

REVISE DESCRIPTION AND (RE)PREREQUISITE

FINC 581  Real Estate Investment and Finance (3)  Explores the major concepts, principles, analytical methods, and tools used to evaluate the financing of and investment in real property. Emphasis is also placed on understanding the factors influencing the dynamics of commercial real estate markets.
(RE)Prerequisite(s): FINC 505 and FINC 506.
Formerly: Financial and market analysis used to make real estate investment decisions. Effects of variety of financing options on rate of return on income-producing properties. Effect of various financing options on consumer’s decisions to purchase. Relationship between primary and secondary mortgage markets and impact of those markets on cost and availability of funds for real estate lending. Effects of government intervention (taxation, subsidization, and regulation) in both real estate and mortgage markets.
(RE Prerequisite(s): Business Administration 518.
Rationale: BUAD 518 no longer exists. Impact on other units: None. Financial impact: None.

(SCM) Supply Chain Management

ADD

SCM 521  Strategic Supply Management & Sustainability (3)  Designed for the Tri-Continent SCM master’s program: addresses the processes that facilitate the structure, creation, and management of value-added transactions and relationships between supplier and customer organizations in a channel, supply chain, and integrated value system context with a particular focus on financial techniques to better manage supply chain costs. Will learn how to apply financial measures to supply chain decision-making problems and also to become an effective and efficient supply chain manager. Identifies and advocates for sustainable approaches to sourcing and SCM in general. This is a highly interactive class using cases, simulations and in-class exercises to better align with “real-world” thinking while focusing on foundations of the supply chain and the interactive role of supply management within an organization and as a boundary spanner.
Knoxville Campus
Registration Restriction: Graduate students in the Haslam College of Business.
Rationale: This course is specifically designed to fill a gap in Tri-Continent Master’s Program.

SCM 541  Supply Chain Planning and Analysis for Operations (3)  Designed for the MBA program: covers the development of plans for executing supply chain processes to support integration of the supply chain across major functional areas of the business including logistics, marketing, manufacturing, and procurement. To facilitate achievement of these objectives, will introduce analytical tools and techniques that provide a cause and effect understanding linking operational plans with corporate objectives.
Registration Restriction: Graduate students in the Haslam College of Business.
Rationale: This course is added to fill a gap in the MBA program.
SCM 576  Logistics and Network Management (3)  Designed for the Tri-Continent SCM master’s program: addresses strategic decision making related to the physical network design and operation of the supply chain, including the location and capacity of suppliers, plants, and warehouses in a logistics network that delivers products and services to end customers. Will explore the tradeoffs inherent to physical network decision making with special emphasis on managing demand and lead time variability, matching capacity to demand, centralization and pooling of inventory, and achieving a total value solution. Will apply analytic methods learned in other courses to the problems of supply chain network design and strategic inventory positioning, in order to explore theoretical relationships and to provide students with decision making skills needed in practice.

Knoxville Campus
Registration Restriction: Graduate student in the Haslam College of Business.

Rationale: This course is specifically designed to fill a gap in the Tri-Continent Master's Program.

REVISE TITLES AND DESCRIPTIONS

SCM 621  Strategic and Sustainable Sourcing: Theoretical Foundations (3)  Survey of concepts, frameworks, theory, research issues, and empirical research in content areas related to global strategic and sustainable sourcing. Focus on understanding the theoretical foundations used in the field. Covers conceptual foundations, issue controversies, and future research directions.

Registration Restriction(s): Minimum student level – graduate.

Formerly:
Operations and Purchasing Management (3)
Survey of concepts, frameworks, theory, research issues, and empirical research in content areas related to manufacturing and service operations management and purchasing. Conceptual foundations, issue controversies, and future directions.

Rationale: To better reflect the content of this course.

SCM 622  Supply Chain Operations, Planning, and Analysis (3)  Survey of concepts, frameworks, theory, research issues, and empirical research in content areas related to operations management and planning. Focus on understanding the trade-offs of different empirical research methods. Conceptual foundations, issue controversies, and future directions.

Registration Restriction(s): Minimum student level – graduate.

Formerly:  Supply Chain Management Thought (3)
Survey of concepts and research methods of interorganizational systems. Supply chains will be studied from multiple perspectives including the following: institutional design and structure, transaction cost economics, operations and logistics cost economics, exchange behaviors and strategies, supply chain relationship types, and evaluation of supply chain performance.

Rationale: To better reflect the content of this course.

II PROGRAM CHANGES

DEPARTMENT OF ACCOUNTING AND INFORMATION MANAGEMENT

+  ADD NEW MAJOR AND DEGREE

Major: Business Cybersecurity
Degree: Master of Science

In the 2023 Graduate Catalog, add program and program requirements (pending THEC and SACSCOC approvals)

*This program is pending approval from the Tennessee Higher Education Commission and the Southern Association of Colleges and Schools Commission on Colleges. Students will be admitted to the major should the program be approved.

This program takes an engagement-based, integrative approach to expand upon traditional technical skills by building understanding of the business context, the regulatory environment, and the managerial and organizational implications of risk and value-generation associated with cybersecurity policies and systems. The online Master of Science in Business Cybersecurity (MSBC) prepares both traditional, full-time students and working professionals attending school part-time with motivation and interest, but not necessarily a technical background, to pursue business cybersecurity roles or take on business cybersecurity responsibilities within their existing organizational position or future opportunities for those looking for new jobs. There is increasing demand for qualified business cybersecurity professionals, encompassing a broad range of roles in organizations, which existing supply cannot meet.
Delivery Method: Distance Education

Campus Code: Distance Education

Options Available: Coursework Only Without Comprehensive Exam

Admission Standards/Procedures:
The HCB admissions group will perform reviews of student files along with the faculty program leader from the departments of Accounting and Information Management and Graduate and Executive Education. This group will review all applications and recommend prospective students for admission to the program. The following criteria will be considered when determining applicant admission into the program:

- Meets requirements for admission to the UT Graduate School;
- Holds an undergraduate degree in business (or equivalent) from an accredited program. Applicants with non-business degrees will be reviewed on an individual basis and may be required to complete non-credit training programs and/or additional coursework prior to enrolling in the MSBC program;
- Two applicant recommendation letters are required. Additional evaluation materials (such as GMAT or GRE scores) may be required if transcripts do not provide sufficient evidence of applicant performance in quantitative courses; and
- All students must adhere to all UTK ethical and professional standards (see Hilltopics).

Procedure for Application to Program
- Complete Haslam College of Business Application Form.
- Adhere to application deadlines and other requirements as posted on the Haslam College of Business website.

Academic Standards
- All students must meet the academic standards set by the Graduate School.
- Students must adhere to ethical and professional standards.

Credit Hours Required:
30 graduate credit hours

Required Courses:
Core and Sub-core Requirements (30 graduate credit hours). The MSBC program requires completion of 30 Semester Credit Hours (SCH) distributed as follows (for a semester by semester schedule see Example Full-Time Course Schedule and Example Part-Time Course Schedule below):

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>INMT 561*</td>
<td>Foundations of Business Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>INMT 562</td>
<td>Security Governance and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>INMT 563</td>
<td>Business Communications and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>INMT 564</td>
<td>Business Information Asset Security</td>
<td>3</td>
</tr>
<tr>
<td>INMT 565</td>
<td>Risk Management and Business Continuity</td>
<td>3</td>
</tr>
<tr>
<td>INMT 566</td>
<td>Organizational Security Management</td>
<td>3</td>
</tr>
<tr>
<td>INMT 567</td>
<td>Business Security Architecture and Systems</td>
<td>3</td>
</tr>
<tr>
<td>INMT 568</td>
<td>Business Software Development Security</td>
<td>3</td>
</tr>
<tr>
<td>INMT 569</td>
<td>Emerging Topics in Business Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>INMT 570**</td>
<td>Business Cybersecurity Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives:
No formal course electives are offered as part of the program.

*INMT 561 must be taken in the first semester. It is a co-requisite for all other courses.
**INMT 570 must be taken in the final semester. All other courses are co-requisites.

While MSBC will begin with the introductory course (INMT 561) and ends with the capstone course (INMT 570), students can take the remaining coursework in a manner that best fits with their schedule and finances allow. This flexibility would allow students to complete the program in as little as 12 months or more slowly based upon their individual situations. Thus, MSBC will not strictly be using a cohort system. Leave of Absences (LOA) will be allowed but students must complete the degree requirements in 6 years.

Example Full-Time Course Schedule (12 months):

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL TERM</td>
<td>Foundations of Business Cybersecurity</td>
<td>3</td>
</tr>
</tbody>
</table>
INMT 562  Security Governance and Ethics   3
INMT 563  Business Communications and Network Security 3
INMT 564  Business Information Asset Security 3

SPRING TERM
INMT 565  Risk Management and Business Continuity 3
INMT 566  Organizational Security Management 3
INMT 567  Business Security Architecture and Systems 3
INMT 568  Business Software Development Security 3

SUMMER TERM
INMT 569  Emerging Topics in Business Cybersecurity 3
INMT 570  Business Cybersecurity Capstone 3

Example Part-Time Course Schedule (variable time period not to exceed 6 years):

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL I TERM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INMT 561</td>
<td>Foundations of Business Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>INMT 564</td>
<td>Business Information Asset Security</td>
<td>3</td>
</tr>
<tr>
<td>SPRING I TERM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INMT 562</td>
<td>Security Governance and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>INMT 568</td>
<td>Business Software Development Security</td>
<td>3</td>
</tr>
<tr>
<td>SUMMER TERM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INMT 563</td>
<td>Business Communications and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>INMT 565</td>
<td>Risk Management and Business Continuity</td>
<td>3</td>
</tr>
<tr>
<td>FALL II TERM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INMT 566</td>
<td>Organizational Security Management</td>
<td>3</td>
</tr>
<tr>
<td>INMT 567</td>
<td>Business Security Architecture and Systems</td>
<td>3</td>
</tr>
<tr>
<td>SPRING I TERM</td>
<td></td>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>INMT 570</td>
<td>Business Cybersecurity Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation / Academic Standards
To be eligible for graduation, students must:

- complete the entire curriculum plan per UTK Graduate School policies as specified by the University of Tennessee.
- have a 3.00 graduate GPA to graduate.

RATIONALE: SUPPORTING INFORMATION:

Academic/Institutional need. The MSBC program is consistent with the goals and priorities of UTK, striving to contribute toward the university's stated goals and mission to "empower learners of all ages and backgrounds to achieve their dreams through accessible and affordable education, advance the prosperity, well-being, and vitality of communities across Tennessee and around the world through our research, teaching, service, and engagement, and commit to excellence, equity, and inclusion within the university, across the state, and in all our global activities."

In addition, although two Tennessee universities offer business concentrations in this area (East Tennessee State University and Middle Tennessee State University), this new program is significantly distinguishable from the University of Tennessee's existing Master of Science in Computer Science concentration in Cybersecurity, and similar programs from a Computer Science or related department, in both its target market and curriculum focus. The Computer Science program targets students with an undergraduate in Computer Science or a background in similar technical and mathematical skillsets, focusing on a deep dive into the technical aspects of cybersecurity and employment in associated technical positions. In contrast, this program is developed to enable individuals without a technical undergraduate program to transition into cybersecurity positions where the skillsets require competency and knowledge of the technical aspects but have a stronger emphasis on the intersection of the technology and the business context in terms of policy, risk, governance, communication, and management.

Student demand. The department of Accounting and Information Management currently offers courses in cybersecurity at both the undergraduate and graduate levels. These students, as well as alumni of our existing programs, have increasingly expressed interest in a graduate degree in Business Cybersecurity at the Haslam College of Business as a way of deepening their knowledge of cybersecurity, enhancing their employment opportunities, and earning potential, or transitioning from their current position into a cybersecurity role.

Following up on these conversations, we conducted a survey of students enrolled in an information management course (BUAD 342) taken by Haslam College of Business students in the fall semester of 2021. Course instructors of BUAD 342 invited all Haslam students
enrolled in 14 sections to participate in the online survey. To maximize the response rate, instructors provided time during class for students to complete the survey. Five hundred seventeen (517) students completed the survey, yielding a 62% response rate. Key findings from the survey indicate a strong interest, and potential demand, among current Haslam students for such an offering.

A majority (75%) of respondents indicated they would consider pursuing a master’s degree within five years of completing their bachelor’s degree. Additionally, 61% of respondents indicated they would consider pursuing a master’s degree within two years or less after completing their bachelor’s degree. Independent of the likelihood of pursuing a master’s degree in the future, when asked about their potential interest in a Master of Business Cybersecurity program at Haslam College of Business, a majority (65%) of respondents indicated some level of interest.

When asked about how likely they would consider enrolling in a Master of Business Cybersecurity program at Haslam College of Business, 19% (n=96) of respondents indicated they were either likely or certain to enroll in the program, and 37.14% (n=192) of respondents indicated they could enroll in the program.

Survey findings also indicate a strong interest in a program that caters to working professionals. Most respondents indicated they would work either full-time (34%) or part-time (47%) while enrolling in a master’s degree program. As for reasons to pursue a master’s degree (respondents were allowed to choose multiple reasons), “to improve earning potential” (24%) and “to expand employment opportunities” were the top two reasons indicated by respondents.

Additionally, a market study was conducted by Noodle to capture the competitive landscape and interest in a master’s degree in business cybersecurity. Key findings from the market report indicate a strong market of potential students, with a 10-year growth rate of 13.7%. Findings also indicate an increase in demand for online programs in this area.

**Employer need.** According to the International Information Systems Security Certification Consortium (ISC)³ Workforce Study, the workforce needs to grow 65% to meet current demand for qualified cybersecurity professionals. In the United States, there are over 597,000 open cybersecurity positions as of March 2022 and a supply of cybersecurity professionals to fill only 68% of those roles. The workforce gap is similarly concerning in Tennessee (73% of 6,729 jobs) and adjacent states (e.g., Georgia 67% of 21,868 jobs, North Carolina 67% of 21,010 jobs, and Virginia 68% of 53,767)².

In response to this workforce gap, the Tennessee Higher Education Commission Supply and Demand Report pursues both traditional and new pathways for growing the cybersecurity workforce. Of the six universities in Tennessee that offer a master’s program related to cybersecurity, four offer a program in computer science or a related department, focusing primarily on the technical aspects of cybersecurity. Two programs offered in the college of business (East Tennessee State University and Middle Tennessee State University) offer only a concentration in this area. Meanwhile, few research universities in the southeast region offer cybersecurity-related master’s programs. Like universities in Tennessee, most of these universities offer a program in computer science or a related department, focusing on the technical aspects of cybersecurity. Only three universities (Virginia Tech, Georgia State University, and the University of South Florida) offer the program in the college of business; among them, the University of South Florida is the only one that has a standalone, comprehensive cybersecurity program.

The proposed MSBC is well positioned to address a portion of the cybersecurity workforce gap. Although demand remains high for purely technical roles in cybersecurity, business leaders are recognizing that cybersecurity represents a major component of core business operations. This expansion of cybersecurity outside the technical domain is emphasized by high demand for skills that blend technical skills with complimentary business and organizational knowledge, such as risk management, governance, and regulatory compliance (see footnote 2). This program will be distinctive in that it takes an integrated approach that expands upon traditional technical skills by emphasizing the broader implications of cybersecurity in the business context. Beyond cutting-edge coursework, the program will leverage industry partnerships to bring current practices into the classroom and ensure students are “job-ready” upon graduating. The curriculum will enable students to fulfill many underserved roles in the market (i.e., those focused on risk management, governance, project management, security awareness, training, etc.) that require individuals who can liaise between system developers and other functional units.

In tandem with this expansion of the cybersecurity domain, there has been a shift in the path and entry point to a career in cybersecurity. A little over half of cybersecurity professionals are now entering the cybersecurity careers without a cybersecurity or similar technical background, transitioning from unrelated career fields or pursuing cybersecurity education on their own (see footnote 2). This program is developed to enable individuals without a technical undergraduate program to transition into cybersecurity positions where the skillssets require competency and knowledge of the technical aspects but have a stronger emphasis on the intersection of the technology and the business context. Additionally, the program is designed intentionally to be flexible and accessible to meet the needs of working professionals and individuals who cannot be full-time, on-campus students.

**Staffing impact.** Two additional tenure-track faculty have been approved for hire prior to the launch of the new program. One new non-tenure track faculty member will be funded through revenues generated from the program. Anticipated support staff will be funded through revenues generated from the program.

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### Financial Impact.

<table>
<thead>
<tr>
<th>Revenue</th>
<th>2023-24</th>
<th>2024-25</th>
<th>2025-26</th>
<th>2026-27</th>
<th>2027-28</th>
<th>2028-29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Fees</td>
<td>$464,101</td>
<td>$2,024,648</td>
<td>$2,513,597</td>
<td>$3,146,455</td>
<td>$3,723,033</td>
<td></td>
</tr>
</tbody>
</table>

1 [https://www.isc2.org/Research/Workforce-Study](https://www.isc2.org/Research/Workforce-Study)
2 CyberSeek.org
3 8 Reasons Why Cybersecurity Strategy and Business Operations are Inseparable
Total Revenue  $0  $464,101  $2,024,648  $2,513,597  $3,146,455  $3,723,033

Expenditures

Fees - UTK  $27,909  $83,727  $130,388  $167,891  $200,161

OPM Upfront Fees*  $867,693  $0  $0  $0  $0

OPM Annual Operating Costs  $1,213,011  $992,645  $1,274,784  $1,417,768  $1,397,512

HCB Operating Costs  $161,000  $390,425  $380,188  $360,243  $355,601  $366,269

Total Expenditures  $1,028,693  $1,631,345  $1,456,560  $1,765,415  $1,941,259  $1,963,941

Total Contribution HCB  ($1,028,693)  ($1,167,244)  $568,088  $748,182  $1,205,196  $1,759,092

*Includes course buildouts, marketing and recruiting costs and first-year operating expenses.

Revenues are based upon a 6-hour progression, with one course taken in summer. Projected new enrollments each year, based upon the initial market study by Noodle are: 30 in the first year, 46 in year two, 60 in year three, 75 in year four, and 84 by year five.

Impact on other units.

This new program is expected to have impact in a few important ways:

Graduate student recruiting. The MSBC program would increase the number of graduate students on the UTK campus by approximately 30 in year one and more in subsequent years. Given the target market could include students with limited or no work experience along with working professionals, it is also anticipated that the University will be able to retain top undergraduates who would otherwise leave to pursue graduate studies in cybersecurity or related majors elsewhere. Once successful, this program would also serve as a solid foundation for future expansion of graduate level business cybersecurity education. As an example, we could launch graduate business cybersecurity certificates geared toward focused cybersecurity topic areas, such as risk management, identity access and control, or governance and compliance.

Research output and collaborations. Having a vibrant master’s program will help foster greater research productivity by providing a greater opportunity for Accounting and Information Management research faculty to leverage teaching topics that align more closely with the research they conduct, increasing idea generation and synergy between those activities. The potential for RAs with similar field of interest and knowledge could also enhance research productivity. Given the implications of cybersecurity across research disciplines, research output will be strengthened and broadened in the Department of Accounting and Information Management and enhance potential for collaboration with other departments in the Haslam College of Business and across the university.

Benefits to the State of Tennessee. This proposal responds to the State of Tennessee’s focus on Student Success by broadening the range of students that can pursue an education and career in business cybersecurity. The program is intentionally flexible to reach individuals across the state and beyond who cannot be full-time, on-campus students.

Partnering with Noodle to develop an engaging, interactive and personalized learning environment allows for better student engagement and retention, increasing the chances for students to successfully complete the program. The program will also help meet industry demand for cybersecurity professionals who have the skillset to work in roles at the intersection of technology and business.

Learning objectives supported.

Proposed learning outcomes may include:

- Demonstrate understanding of the impacts of cybersecurity on the business environment;
- Demonstrate awareness and implications of regulations and external factors associated with organizational cybersecurity;
- Demonstrate the ability to leverage key technologies for the design, implementation, and protection of organizational assets;
- Demonstrate understanding of policy, operations, and management of organizational business processes; and
- Demonstrate the ability to apply cybersecurity skills and knowledge to real-world business scenarios.

These learning objectives will be paired with program assignments and course grades.

Evidence from Assessment Activities

None identified as this is a new program, but external evidence regarding student demand and employer need is reported above.
I. COURSE CHANGES

COLLEGE OF COMMUNICATION AND INFORMATION

(CCI) Communication and Information

DROP

CCI 540 Communication Theory (3)
Rationale: All CCI Schools are dropping or have already dropped this course from the curriculum as it is no longer needed as a college-wide course.

SCHOOL OF ADVERTISING AND PUBLIC RELATIONS

(ADPR) Advertising and Public Relations

ADD

ADPR 515 Social Media Analytics (3) Detailed study of a specialized area of advertising and public relations. Enables students to grasp the requisite analytics tools to leverage social media data. Introduces tools such as engagement analytics, sentiment analysis, topic modeling, social network analysis, identification of influencers and evaluation of social media strategy.
Rationale: This course better prepares students to enter the workplace and use data-driven approaches to strategy. Impact on other units: None. Financial impact: None.

(ADVT) Advertising

ADD EXISTING 400-LEVEL COURSE FOR GRADUATE CREDIT

ADVT 480 Advertising Issues (3) Examination of the role of advertising in society and controversies surrounding economic, social, cultural, and ethical aspects of advertising. Emphasis on written and oral exposition of different viewpoints.
(RE) Prerequisite(s): ADVT 360.
Registration Restriction(s): Advertising or Public Relations Major.
Rationale: With the expanded opportunities and programs for master’s students in our School, making ADVT 480 available for graduate credit enhances flexibility in coursework availability. Impact on other units: None. Financial impact: None.

(PBRL) Public Relations

ADD EXISTING 400-LEVEL COURSE FOR GRADUATE CREDIT

PBRL 400 Ethical and Legal Issues in Public Relations (3) Exploring legal and ethical issues that affect the practice of public relations.
Rationale: With the expanded opportunities and programs for master’s students in our School, making PBRL 400 available for graduate credit enhances flexibility in coursework availability. Impact on other units: None. Financial impact: None.
II. PROGRAM CHANGES

SCHOOL OF ADVERTISING AND PUBLIC RELATIONS

REVISE PROGRAM REQUIREMENTS: COMMUNICATION AND INFORMATION MAJOR, ADVERTISING CONCENTRATION, MS

In the 2023-2024 Graduate Catalog, for the Communication and Information Major, Advertising concentration, MS, revise program requirements. Under the Required Courses heading, remove the first 3 bullets (Core, Concentration Electives, and Approved Electives) and text and replace with the two as shown below. No change to Capstone bullet.

Concentration Courses (18 hours)
- ADPR 515 Social Media Analytics or Elective
- ADPR 530 Advertising & PR Research
- ADVT 510 Advertising and Society
- ADVT 520 Advertising and Communications Theory
- ADVT 540 Advertising Decision Making
- ADVT 560 Account Planning

Elective Courses 12 credit hours of graduate coursework for non-thesis option, 9 credit hours of graduate coursework for thesis option
- Any class carrying graduate credit from ADPR, ADVT, PBRL, CMST, JREM, or INSC may be used.
- Other electives may be taken with the permission of the advisor.
- ADVT 500 and ADVT 590 cannot count toward this total.

Formerly:
- Core (6 credit hours) to be taken during the first two semesters
- CCI 540 (3 credit hours)
- ADPR 530 (3 credit hours)

Concentration Electives (15 credit hours)
- At least 6 hours of the concentration must be at the 500 level or above
- Selected in consultation with the major professor and guidance committee

Approved Electives (6 or 9 credit hours)
- Take 6 credit hours (Thesis option) to 9 credit hours (Project option) graduate courses from at least two of the schools in the College of Communication and Information and are selected in consultation with the major professor and guidance committee

Rationale: CCI 540 is being dropped from the graduate course offerings and no other Schools in CCI require CCI 540. Based on the changing interests of incoming students and the expanded opportunities and programs for master’s students in our School, the proposed changes to this concentration would meet the learning objectives of the program.

REVISE PROGRAM REQUIREMENTS: COMMUNICATION AND INFORMATION MAJOR, PUBLIC RELATIONS CONCENTRATION, MS

In the 2023-2024 Graduate Catalog, for the Communication and Information Major, Public Relations concentration, MS, revise program requirements. Under the Required Courses heading, remove the first 3 bullets (Core, Concentration Electives, and Approved Electives) and text and replace with the two as shown below. No change to Capstone bullet.

Concentration Courses (15 graduate credit hours)
- ADPR 530 Advertising & PR Research (spring)
- PBRL 525 Public Opinion (fall)*
- PBRL 530 Issues & Crisis Management (spring)*
- PBRL 540 Public Relations Management (fall)
- PBRL 550 Public Relations Strategies (spring)
- *Other relevant courses may be taken with permission of advisor

Elective Courses (15 hours for projects and 12 hours for thesis)
- Any class carrying graduate credit from ADPR, ADVT, PBRL, CMST, JREM, or INSC may be used.
- Other electives may be taken with the permission of the advisor.

Formerly:
- Core (6 credit hours) to be taken during the first two semesters
- CCI 540 (3 credit hours)
- ADPR 530 (3 credit hours)
Concentration Electives (15 credit hours)
At least 6 credit hours of the concentration must be at the 500-level or above
Selected in consultation with the major professor and guidance committee

Approved Electives (6 or 9 credit hours)
Take 6 credit hours (Thesis option) to 9 credit hours (Project option) graduate courses from at least two of the schools in the College of Communication and Information and are selected in consultation with the major professor and guidance committee

Rationale: CCI 540 is being dropped from the graduate course offerings and no other School in CCI require CCI 540. Based on the changing interests of incoming students and the expanded opportunities and programs for master’s students in our School, the proposed changes to this concentration would meet the learning objectives of the program.

REVISE PROGRAM REQUIREMENTS: COMMUNICATION AND INFORMATION MAJOR, ADVERTISING AND PUBLIC RELATIONS CONCENTRATION, MS – COURSEWORK ONLY WITHOUT COMPREHENSIVE EXAMS OPTION

In the 2023-2024 Graduate Catalog, for the Communication and Information Major, Advertising and Public Relations concentration, MS, revise program requirements under the Block headings as shown below. This revision will now show only 4 Block headings. Removes the last 4 bullets under the current Required Courses heading.

Required Courses:

Block 1: Advertising and Public Relations Courses (12 hours)
- ADVT 510 Advertising and Society
- ADVT 520 Advertising and Communication Theory
- ADVT 540 Advertising Decision Making
- ADVT 560 Account Planning
- PBRL 525 Public Opinion
- PBRL 530 Issues and Crisis Management
- PBRL 540 Public Relations Management
- PBRL 550 Public Relations Strategies

Block 2: Strategic Communication Courses (3 hours)
- ADPR 515 Social Media Analytics
- ADPR 530 Advertising and Public Relations Research
- ADPR 562 Social Media Strategy and Tactics
  *Cannot take if already completed ADPR 415

Block 3: Concept Application Courses (3 hours)
- ADVT 470 Advertising Campaigns (only if not taken as undergrad)
- PBRL 470S Public Relations Campaigns (only if not taken as undergrad)
- ADPR 590 Advertising and Public Relations Project

Block 4: General Electives (12 hours)
Any class carrying graduate credit from ADPR, ADVT, PBRL, CMST, JREM, or INSC may be used. At least two courses should be outside the School. Other electives outside of the College may be taken with the permission of the advisor.

Formerly:

Block 1: Core Advertising Classes (Minimum 6 credit hours)
- ADVT 510 Advertising and Society
- ADVT 520 Advertising and Communication Theory
- ADVT 540 Advertising Decision Making
- ADVT 560 Account Planning (cannot take if already had ADVT 460)

Block 2: Core Public Relations Classes (Minimum 6 credit hours)
- PBRL 525 Public Opinion
- PBRL 530 Issues and Crisis Management
- PBRL 540 Public Relations Management
- PBRL 550 Public Relations Strategies

Block 3: Additional Strategic Communication Courses (Minimum 3 credit hours)
- ADPR 530 Advertising and Public Relations Research
- ADPR 542 Strategic Communication Management
- ADPR 562 Social Media Strategy and Tactics
- CCI 540 Communication Theory

Block 4: Concept Application Courses (Minimum 3 credit hours)
- ADVT 470 Advertising Campaigns (only if not taken as undergrad)
- PBRL 470S Public Relations Campaigns (only if not taken as undergrad)
- ADPR 590 Advertising and Public Relations Project
- ADPR 592 Advertising and Public Relations Internship
Block 5: ADPR Electives (3 graduate credit hours)
ADPR Electives – Additional six graduate credit hours from courses in blocks 1-4 may be used; ADPR/ADVT/PBRL 516 courses may also be used.

Block 6: General (9 graduate credit hours)
General Electives – Additional six graduate credit hours from courses in blocks 1-5 or any CCI graduate courses. ADPR 516 / ADVT 516 / PBRL 516 courses may also be used.

Rationale: CCI 540 is being dropped from the graduate course offerings and no other Schools in CCI require CCI 540. Based on the expanded opportunities and programs for master's students in our School, the proposed changes to this concentration would meet the learning objectives of the program.

SCHOOL OF INFORMATION SCIENCES

< ADD CERTIFICATE

School Librarianship

In the 2023-2024 Graduate Catalog add heading, text and requirements for new certificate: School Librarianship.

School Librarianship Graduate Certificate
The School Librarianship certificate is for any new student, or currently or previously enrolled student at the University of Tennessee, who has a valid Tennessee teaching license. The certificate, in combination with a master’s degree and successful completion of the School Librarian Praxis exam, prepares an individual to work as a school librarian in a PreK-12 setting in Tennessee.

Campus Code:
Knoxville
Distance Education

Graduate Certificate Type:
Stand-alone
Add-on

Admissions Standards/Procedures:
• A completed online application must be received by the Graduate School, and the applicant must meet the School of Information Sciences graduate program standards, including:
  • An undergraduate GPA of 3.25 or higher;
  • A 400-700 word written statement of your career objectives
  • Letters of recommendation from 3 persons qualified to judge academic and/or professional qualities
  • Resume
  • The GRE is not required.
  • Applicants with a master’s degree from a college or university accredited by the American Library Association may request a transcript evaluation to ascertain exactly what courses need to be completed.

Academic Standards:
A grade of B or better must be earned in all certificate courses.

Credit Hours Required:
23 graduate credit hours

Required Courses:
INSC 511 (3) Information Concepts and Foundations
INSC 512 (3) Information Organization and Retrieval
INSC 514 (3) Information Technology Foundations
INSC 551 (3) School Libraries
INSC 560 (3) Development & Management of Collections
INSC 571 (3) Children’s Materials
INSC 572 (3) Young Adult Materials
INSC 596 (2 credit hours; 100 clock hours) – Field-based Experience in School Libraries
Non-Course Requirements
For an official endorsement to be added to a State of Tennessee teaching license, you must also successfully pass the Praxis Library Media Specialty exam (5311).

To receive the certificate, students must
1) complete the Graduate Certificate Course Verification Form (located on the Graduate School webpage under the Forms Central tab) and
2) through MyUTK apply to graduate from the certificate program.

Rationale: This will streamline and improve admissions, advising and registration for students currently labeled "nondegree-seeking." The certificate program will allow us to better capture, track, and support these students by making them more visible in the enrollment and registration processes. At present, they are not assigned advisors and have to take extra steps to enroll in class; adding this certificate more fully incorporates them into student academic life and support systems.

(CIP code)
(25.0101) Library and Information Science.
(25.0102) Children and Youth Library Services.
(13.1399) Teacher Education and Professional Development, Specific Subject Areas, Other.

COLLEGE OF LAW
All changes effective Fall 2023

I. COURSE CHANGES

REVISE TITLE

Law 826  Accounting and Finance Basics for Lawyers (2)

Formerly:
Law 826  Introduction to Business Transactions (2)

Rationale: Name better reflects course content. Impact on other units: None expected. Financial impact: None expected.

REVISE TITLE AND DESCRIPTION

Law 883  Images of the Law: Legal Ethics, Professional Responsibility, and Advocacy in Media and Real Life (2)
The way lawyers and legal institutions are portrayed in popular media has important implications for litigants, juries, lawmakers, and lawyers. This seminar will look at portrayals of law and the legal profession in television and film and discuss how those do – and do not – match institutions in the real world, as well as how they influence behavior among both lawyers and non-lawyers. Each class will also consider the ethical and professional responsibility ramifications of lawyer behavior in entertainment and media.

Formerly:
Law 883  Images of the Law (2)  The way lawyers and legal institutions are portrayed in popular media has important implications for litigants, juries, lawmakers, and lawyers. This seminar will look at portrayals of law and the legal profession in television and film, and discuss how those do – and do not – match institutions in the real world, as well as how they influence behavior among both lawyers and non-lawyers.

Rationale: Name better reflects course content. Impact on other units: None expected. Financial impact: None expected.

II. PROGRAM CHANGES

REVISE REQUIREMENTS, LAW MAJOR, JD

In the 2023-24 Graduate Catalog, under the Additional Course Requirements Heading, add the following course number to the list of courses found at the second bullet point, reading “Of the required 89 credit hours, no more than 18 credit hours may be earned in any combination of the following course”

Law 991

In the 2023-24 Graduate Catalog, under the Additional Course Requirements Heading, at the bullet point “One Planning and Drafting experience” add the following course:

Law 909

In the 2023-24 Graduate Catalog, under the Additional Course Requirements Heading, delete the first bullet point heading (which is duplicative of the identical requirement that is correctly listed in the non-course requirements section), which currently reads as follows:

• To be eligible to receive the JD, candidates must earn at least 58 credit hours in residence at the College of Law
In the 2023-24 Graduate Catalog, under the Additional Course Requirements Heading, add a new bullet point at the end of the list providing:

- “Two Courses Addressing Bias, Cross-Cultural Competency, and Racism.” Students will fulfill the first course requirement by taking Law 811 as part of the required 1L curriculum. The second course requirement will be fulfilled by selecting a course from the following list, as well as additional courses that may be approved by the Dean or the Dean’s Designee: Law 905, Law 906, Law 908, Law 909, Law 911, Law 947, Law 948, Law 949, Law 951, Law 953, Law 982, Law 992.

In the 2023-24 Graduate Catalog, under Non-Course Requirements, add a new bullet point at the end of the list, providing:

- no more than 29 of the 89 credit hours required for graduation may be earned through distance education courses.