



AGENDA
TENNESSEE HIGHER EDUCATION COMMISSION
Spring Quarterly Meeting
Nashville Room - Third Floor, William R. Snodgrass Tennessee Tower
May 16, 2024, 9:00 a.m. CDT

Call to Order

Adoption of Agenda

Public Comment

Approval of Minutes: January 25, 2024, Winter Quarterly Meeting

Chair's Report

Executive Director's Report

Consent Calendar

- I. Postsecondary State Authorization (*Action Item*)
 - A. Authorization of New Institutions
 - B. Optional Expedited Authorization

- II. Off-Campus Centers (*Action Item*)
 - A. University of Tennessee, Martin – Springfield Center
 - B. University of Tennessee, Health Science Center, College of Pharmacy – Knoxville Center
 - C. University of Tennessee, Health Science Center, College of Pharmacy – Nashville Center
 - D. Tennessee College of Applied Technology at Chattanooga – Hamilton County Jail Center
 - E. Austin Peay State University – Innovation Academy Center

Regular Calendar

- I. 2024-25 Binding Tuition and Fee Ranges (*Action Item*)

- II. New Academic Programs (*Action Items*)
 - A. East Tennessee State University – Music, Master of Music (MM)
 - B. Tennessee State University – Business Data Analytics, Master of Science (MSBDA)
 - C. Tennessee State University – Public Health, Doctor of Philosophy (PhD)
 - D. Tennessee Tech University – Nuclear Engineering, Bachelor of Science (BSNE)
 - E. University of Tennessee, Knoxville – Data Science, Bachelor of Science (BSDS)
 - F. University of Tennessee, Knoxville – Applied Artificial Intelligence, Bachelor of Science (BSAAI)

- G. University of Tennessee, Knoxville – Innovative Transdisciplinary Studies, Bachelor of Science (BSITS)
- H. University of Tennessee, Knoxville – Environmental Engineering, Bachelor of Science (BS)

- III. System Report (*Information Item*)
- IV. Executive Committee Update (*Information Item*)
- V. Legislative Update (*Information Item*)
- VI. Other Business



AGENDA

Access, Academics, and Student Success Committee
Conference Room O, William Snodgrass TN Tower, Nashville
May 15, 2024, 10:00 a.m. CDT

Committee Members: Secretary Hargett, Jacob Knight, Sara Morrison, Tara Scarlett, and AC Wharton

Call to Order

Adoption of Agenda

Public Comment

Approval of Minutes: January 24, 2024 Meeting

Regular Calendar

Binder

Tab

- I. Postsecondary Education Authorization (*Action Item*)
 - CCI.A. A. Authorization of New Institutions
 - CCI.B. B. Optional Expedited Authorization

- II. Off-Campus Centers (*Action Item*)
 - CCII.A. A. University of Tennessee, Martin – Springfield Center
 - CCII.B. B. University of Tennessee, Health Science Center, College of Pharmacy – Knoxville Center
 - CCII.C. C. University of Tennessee, Health Science Center, College of Pharmacy – Nashville Center
 - CCII.D. D. Tennessee College of Applied Technology at Chattanooga – Hamilton County Jail Center
 - CCII.E. E. Austin Peay State University – Innovation Academy Center

- II. New Academic Programs (*Action Item*)
 - RCII.A. A. East Tennessee State University – Music, Master of Music (MM)
 - RCII.B. B. Tennessee State University – Business Data Analytics, Master of Science (MSBDA)
 - RCII.C. C. Tennessee State University – Public Health, Doctor of Philosophy (PhD)
 - RCII.D. D. Tennessee Tech University – Nuclear Engineering, Bachelor of Science (BSNE)
 - RCII.E. E. University of Tennessee, Knoxville – Data Science, Bachelor of Science (BSDS)

- RCII.F. F. University of Tennessee, Knoxville – Applied Artificial Intelligence, Bachelor of Science (BSAAI)
- RCII.G. G. University of Tennessee, Knoxville – Innovative Transdisciplinary Studies, Bachelor of Science (BSITS)
- RCII.H. H. University of Tennessee, Knoxville – Environmental Engineering, Bachelor of Science (BS)

III. Other Business

TENNESSEE HIGHER EDUCATION COMMISSION

Access, Academics, and Student Success Committee

Minutes of the Access, Academics, and Student Success Committee

Conference Room O, Tennessee Tower Office Building

312 Rosa L. Parks Ave.

Nashville, TN

January 24, 2024

Chairwoman Winton called the meeting to order at 10:00 a.m.

Member	PRESENT	ABSENT
Commissioner Tara Scarlett	X	
Secretary Tre Hargett	X	
Commissioner Jacob Knight	X	
Commissioner Sara Morrison	X	
Commissioner A.C. Wharton		X
Chairwoman Dakasha Winton	X	

At the start of the meeting, four (4) voting members were physically present, constituting a quorum.

Adoption of Agenda

Secretary Hargett made a motion to adopt the agenda. Commissioner Scarlett seconded the motion. A voice vote was taken, and the motion passed unanimously.

Public Comment

There were no public comments.

Approval of Minutes: November 15, 2023, Committee Meeting

Secretary Hargett motioned to approve the November 15, 2023, Committee Meeting Minutes. Commissioner Knight seconded the motion. A voice vote was taken, and the motion passed unanimously.

AGENDA ITEMS

I. Postsecondary Education Authorization (*Action Item*)

Chairwoman Winton stated that if there were no objections, she would like the Committee to vote on these items as a slate. Dr. Stephanie Bellard-Chase, Senior Director of Postsecondary State Authorization, provided an overview of the Department of Postsecondary Education Authorization. Dr. Bellard-Chase reported that there were two institutions eligible for regular approval and two institutions eligible for optional expedited approval.

Commissioner Scarlett made a motion to approve the Postsecondary Education Authorization. Secretary Hargett seconded the motion. A voice vote was taken, and the motion passed unanimously.

II. Academic Policies (*Action Item*)

Dr. Julie Roberts, Chief Academic Officer, provided an overview of the revised policies, including when the external review process occurs in the academic approval process.

Committee members asked questions and a discussion was held. Commissioner Scarlett made a motion to approve the Academic Policies. Commissioner Knight seconded the motion. A voice vote was taken, and the motion passed unanimously.

III. Discussion of Potential Changes to Academic Program Approval Process (*Informational Item*)

Dr. Julie Roberts, Chief Academic Officer, introduced Dr. Katherine Brackett, Director of Academic Affairs, and Ms. Angelica Jones, Director of Academic Affairs. Dr. Brackett provided an overview of the current Academic Program Approval Process and how staff identified three potential options for a new process, as well as campus feedback, next steps, and staff recommendations. Dr. Brackett provided an overview of the three options.

Committee members asked questions, and a discussion was held.

Ms. Jones presented feedback showing that the first and third options had scored highest among campuses. Committee members asked questions, and a discussion was held.

Ms. Jones presented staff recommendations for a pilot program using Option One. Staff would submit an analysis of the approval data from this pilot program to the Committee during the May 2024 meeting, allowing staff to analyze if additional changes are needed.

Committee members asked questions, and a discussion was held.

IV. Other Business

Chairwoman Winton asked if there was any other business. Secretary Hargett commented that the Committee should focus on resuming the leadership position of higher education by being agile, supporting industry conversations on what requirements are needed for graduation, looking at possible changes in what students are paying for their education, and considering what value accreditation agencies are adding.

Chairwoman Winton adjourned the meeting at 11:11 a.m.

Next Meeting

May 2024

Chairwoman Dakasha Winton



AGENDA
Finance and Operations Committee
Virtual Meeting
May 10, 2024, 9:00 a.m. CDT

Committee Members: Evan Cope, Pam Koban, Treasurer Lillard, Jimmy Matlock, Jay Moser, Comptroller Mumpower, and Vernon Stafford

Call to Order

Statement of Necessity

Adoption of Agenda

Public Comment

Approval of Minutes: January 24, 2024 Meeting

Regular Calendar

Binder

Tab

- RCI. I. 2024-25 Binding Tuition and Fees Ranges (*Action Item*)
- II. Other Business

TENNESSEE HIGHER EDUCATION COMMISSION

Finance and Operations Committee

Minutes of the Finance and Operations Committee

Conference Room O, Tennessee Tower Office Building

312 Rosa L. Parks Ave.

Nashville, TN

January 24, 2024

Commissioner Koban called the meeting to order at 1:00 p.m.

Member	PRESENT	ABSENT
Commissioner Evan Cope		X
Chairman David H. Lillard, Jr.	X	
Chairwoman Pam Koban	X	
Commissioner Jimmy Matlock	X	
Commissioner Jay Moser		X
Comptroller Jason Mumpower	X	
Commissioner Vernon Stafford, Jr.	X	

At the start of the meeting there were four (4) voting members physically present, constituting a quorum. Comptroller Mumpower arrived at the meeting at 1:08 p.m., and then left the meeting at 1:41 p.m.

Adoption of Agenda

Commissioner Koban made a motion to approve the agenda. Commissioner Stafford seconded the motion. A voice vote was taken, and the motion passed unanimously.

Public Comment

There were no public comments.

Approval of Minutes: November 15, 2023, Meeting

Commissioner Stafford made a motion to approve the November 15, 2023, Finance and Operations Committee Meeting Minutes. Commissioner Koban seconded the motion. A voice vote was taken, and the motion passed unanimously.

I. Transmission of the 2023-24 Revised Operating Budget (*Action Item*)

Mr. Russell VanZomeran, Senior Director of Fiscal Policy, provided an overview of the revised Operating Budgets, including revenue by source and expenditures by category.

Committee members asked questions, and a discussion was held.

Commissioner Stafford made a motion to approve the transmission of the revised 2023-24 operating budget. Commissioner Koban seconded the motion. A voice vote was taken, and the motion passed unanimously.

II. Rule Repeal: 1540-01-03 Regulations for Apportioning Funds Under the Agricultural and Home Economic Endowment Trust Fund (*Action Item*)

Ms. Jocelyn Mercado, Associate General Counsel, presented information on repealing 1540-01-03 as the State Treasurer's Office now holds the authority to promulgate rules for the Agricultural and Home Economic Endowment Trust Fund.

Comptroller Mumpower made a motion to approve the Rule Repeal of 1540-01-03 Regulations for Apportioning Funds Under the Agricultural and Home Economic Endowment Trust Fund. Commissioner Matlock seconded the motion. A voice vote was taken, and the motion passed unanimously.

III. Capital Maintenance Presentation (*Informational Only*)

Ms. Patti Miller, Chief of Facilities Planning, provided an overview of Capital Maintenance, including information on Project Information Tracking, a project management tool available to all universities; the Physical Facilities Inventory and Survey, which is open to all universities; and an overview of capital maintenance since the implementation of the FOCUS Act.

Committee members asked questions, and a discussion was held.

IV. OTHER BUSINESS

There was no other business discussed.

The meeting adjourned at 2:20 p.m.

NEXT FINANCE AND OPERATIONS COMMITTEE MEETING:

May 2024

Chairman David H. Lillard, Jr.

Chair's Report

Chairwoman Scarlett discussed the inflection point of higher education and the implications for workforce development. Chairwoman Scarlett provided suggestions on how the Commission can support higher education going to the next level, including pilot programs for K-12 education, Teach for America, and other programs that reimagine how higher education can be relevant and competitive in addressing workforce needs by partnering with industry professionals.

Executive Director's Report

Dr. Steven Gentile, Executive Director, provided an overview of the Commission's agenda along with an overview of his first 30 days as Executive Director. This overview included meetings with each THEC bureau and efforts to maintain and create a pattern of constant communication with all stakeholders.

Consent Calendar

Chairwoman Scarlett stated that with no objection, the Commission would vote on the consent items as a set. Comptroller Mumpower made a motion to approve the Consent Calendar items. Secretary Hargett seconded the motion. A voice vote was taken, and the motion passed unanimously.

Regular Calendar

I. Academic Policies (*Action Item*)

Chairwoman Scarlett stated that with no objection, the Commission would vote on the Academic Policies as a set. Commissioner Winton provided an overview of the Academics, Access, and Student Success Committee Meeting.

Comptroller Mumpower made a motion to approve the revised academic policies, A1.0 New Academic Programs, Approval Process and A1.6 Expedited Academic Programs: Approval Process. Commissioner Winton seconded the motion. A voice vote was taken, and the motion passed unanimously.

II. Rule Repeal: 1540-01-03 Regulations for Apportioning Funds Under the Agriculture and Home Economic Endowment Trust Fund (*Action Item*)

Treasurer Lillard provided an overview of the rule repeal and the Finance and Operations Committee's recommendation to approve the rule repeal as a housekeeping item.

Treasurer Lillard made a motion to approve the rule repeal. Comptroller Mumpower seconded the motion. A roll call vote was taken, and the motion passed with ten (10) ayes.

III. Institution Report (*Information Only*)

Dr. Phil Oldham, President of Tennessee Technological University, provided his institutional report. He included three (3) student focused areas: relevance, value, and response.

Commission members asked questions, and a discussion was held.

IV. Council of State Governments Presentation (*Information Only*)

Mr. Cody Allen, Senior Policy Analyst with The Council of State Governments Southern Office, provided an overview of the southern region of the United States higher education system, where Tennessee is a leader. Mr. Allen stated that institutions are focused on new and expanding funding

streams, addressing common admission problems, artificial intelligence frameworks, non-tuition enrollment factors, increasing dual enrollment, and aligning higher education with workforce needs.

Commission members asked questions, and a discussion was held.

V. Food Insecurity Report (*Information Only*)

Dr. Jacob Kamer, Data Strategist, provided information on what constitutes food insecurity; food deserts in Tennessee in relation to main higher education campuses; and how institutions are currently addressing food insecurity among students. Dr. Kamer noted that all institutions were doing something to address food insecurity, but they were all doing something different. Dr. Kamer focused on additional resources such as improving communication between federal and state resources, dedicated resources on campus to support basic needs, and the exploration of the adoption of the Hunger Free Campus Act.

Commission members asked questions, and a discussion was held.

VI. Reconnect Re-Entry Program (*Information Only*)

Ms. Jessica Gibson, Senior Director of Adult Learners Initiatives, gave an overview of Navigate Reconnect and Governor Lee's Correctional Education Initiative which is currently in nine (9) prisons serving 2,787 justice-involved individuals.

Commission members asked questions, and a discussion was held.

Ms. Miranda Miller, Reconnect Re-Entry Director, gave an overview of her firsthand experience as a Re-Entry Director and the rewards and challenges of working with justice-involved individuals that are currently housed with the Tennessee Department of Corrections.

Commission members asked questions, and a discussion was held.

Mr. Robert Gledhill, Re-Entry Navigator, provided an overview of his firsthand experience as a Re-Entry Navigator, with an emphasis on the work being more proactive than reactive like the justice system. Mr. Gledhill provided a story of a reconstructor who recently graduated.

Commission members asked questions, and a discussion was held.

Mr. Jeremy White, from the Department of Labor and Workforce Development, Office of Re-Entry, gave his firsthand experience as being a recipient of the Re-Entry Program as a justice-involved individual and how he is able to work and help others achieve their goals after leaving the correctional setting.

Commission members asked questions, and a discussion was held.

VII. Other Business

Mr. Nathan James congratulated Dr. Gentile on his appointment as Executive Director.

Chairwoman Scarlett adjourned the meeting at 11:14 a.m. CST.

NEXT THEC COMMISSION MEETING:

Thursday, May 16, 2024, in Nashville

THEC Chairwoman Tara Scarlett

THEC Secretary Whitney Allmon



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: I.A.

MEETING DATE: May 16, 2024

SUBJECT: Postsecondary State Authorization
Authorization of New Institutions

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

The Commission, under the Tennessee Higher Education Authorization Act of 2016, as amended, has the “power and duty” to act upon applications for authorization of postsecondary educational institutions. For the institutions listed below, applications have been reviewed, site visits have been performed, and staff has determined that all necessary documentation and bonds have been secured. In accordance with Rule 1540-01-02-.07(2)(d), the Executive Director granted these institutions provisional initial authorization subject to review and ratification by the Commission. These institutions are being recommended for Regular Authorization.

A. Excel Academy, LLC **Knoxville, TN**
900 E Hill Avenue, Suite 170, Knoxville, Tennessee 37915

Corporate Structure: Limited Liability Company (LLC)
Accreditation: None
Title IV Funding: No

Excel Academy is seeking to register one new program. The program will be offered in a residential format. Instruction will be provided by the faculty from their authorized location in Knoxville, Tennessee.

1. Program: Nurse Aide Training
Credential Awarded: Certificate of Completion
Length of Program: 75 Contact Hours
3 Weeks Full-Time
3.5 Weeks Part-Time

License/Certification Required for Employment: Certified Nurse Aide
Licensing Board/Agency: Tennessee Department of Health/Division of Healthcare Facilities

B. Nashville Academy of Reflexology, LLC
1556 Crestview Drive, Madison, Tennessee 37115

Madison, TN

Corporate Structure: Limited Liability Company (LLC)
Accreditation: None
Title IV Funding: No

Change of Ownership:

Nashville Academy of Reflexology, LLC is owned by Amanda Smith. The institution was purchased from Gail Tossing on April 11, 2023. The institution is a Limited Liability Corporation and has been authorized by THEC since April 25, 2013.

Nashville Academy of Reflexology, LLC is seeking to register one new program. The program will be offered in a residential format. Instruction will be provided by the faculty from their authorized location in Madison, Tennessee.

1. Program: Professional Reflexology Certification (Revised)
Credential Awarded: Certificate of Completion
Length of Program: 200 Contact Hours
7 Months

License/Certification Required for Employment: Registered Certified Reflexologist
Licensing Board/Agency: Tennessee Department of Health/Reflexology Registry

C. Sandra Academy of Salon Services
5250 W Andrew Johnson Hwy, Morristown, Tennessee 37814

Morristown, TN

Corporate Structure: S-Corporation
Accreditation: National Accrediting Commission of Career Arts & Sciences (NACCAS)
Title IV Funding: Yes

Sandra Academy of Salon Services is seeking to register seventeen new programs. Nine of the programs will be offered in a residential format and eight of the programs will be offered in a blended format. Instruction will be provided by the faculty from their authorized location in Morristown, Tennessee, as well as online.

1. Program: Barber Crossover
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Blended

License/Certification Required for Employment: Barber Technician
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

2. **Program:** Barber Instructor
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Blended

License/Certification Required for Employment: Barber Instructor
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

3. **Program:** Campus Barber Crossover
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Barber Technician
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

4. **Program:** Campus Barber Instructor
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Barber Instructor
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

5. **Program:** Campus Master Barber
Credential Awarded: Diploma
Length of Program: 1500 Contact Hours
10 Months Full-Time
20 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Master Barber
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

6. **Program:** Cosmetology
Credential Awarded: Diploma
Length of Program: 1500 Contact Hours
10 Months Full-Time
20 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Cosmetologist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 7. **Program:** Cosmetology
- Credential Awarded:** Diploma
- Length of Program:** 1500 Contact Hours
10 Months Full-Time
20 Months Part-Time
- Delivery Mode:** Blended

License/Certification Required for Employment: Cosmetologist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 8. **Program:** Cosmetology Refresher
- Credential Awarded:** Diploma
- Length of Program:** 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
- Delivery Mode:** Residential

License/Certification Required for Employment: Cosmetologist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 9. **Program:** Cosmetology Refresher
- Credential Awarded:** Diploma
- Length of Program:** 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
- Delivery Mode:** Blended

License/Certification Required for Employment: Cosmetologist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 10. **Program:** Esthetics
- Credential Awarded:** Diploma
- Length of Program:** 750 Contact Hours
5 Months Full-Time
10 Months Part-Time
- Delivery Mode:** Residential

License/Certification Required for Employment: Esthetician
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 11. **Program:** Esthetics
- Credential Awarded:** Diploma
- Length of Program:** 750 Contact Hours
5 Months Full-Time

Delivery Mode: 10 Months Part-Time
Blended

License/Certification Required for Employment: Esthetician
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

12. Program: Instructor
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Instructor License
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

13. Program: Instructor
Credential Awarded: Diploma
Length of Program: 300 Contact Hours
2 Months Full-Time
4 Months Part-Time
Delivery Mode: Blended

License/Certification Required for Employment: Cosmetology Instructor
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

14. Program: Manicuring
Credential Awarded: Diploma
Length of Program: 600 Contact Hours
4 Months Full-Time
8 Months Part-Time
Delivery Mode: Residential

License/Certification Required for Employment: Manicurist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

15. Program: Manicuring
Credential Awarded: Diploma
Length of Program: 600 Contact Hours
10 Months Full-Time
20 Months Part-Time
Delivery Mode: Blended

License/Certification Required for Employment: Manicurist
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners

- 16. Program:** Massage
Credential Awarded: Diploma
Length of Program: 750 Contact Hours
5 Months
Delivery Mode: Residential

License/Certification Required for Employment: Licensed Massage Therapist
Licensing Board/Agency: Tennessee Board of Massage Licensure

- 17. Program:** Master Barber
Credential Awarded: Diploma
Length of Program: 1500 Contact Hours
10 Months Full-Time
20 Months Part-Time
Delivery Mode: Blended

License/Certification Required for Employment: Master Barber
Licensing Board/Agency: Tennessee Board of Cosmetology and Barber Examiners



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: I.B.

MEETING DATE: May 16, 2024

SUBJECT: Postsecondary State Authorization
Optional Expedited Authorization

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

The Commission, under the Tennessee Higher Education Authorization Act of 2016, as amended, has the “power and duty” to act upon applications for authorization of postsecondary educational institutions. For the institutions listed below, applications have been reviewed and staff has determined that all necessary documentation and bonds have been secured. In accordance with Rule 1540-01-02-.07(2)(d), the Executive Director granted these institutions provisional optional expedited authorization subject to review and ratification by the Commission. These institutions are being recommended for Optional Expedited Authorization.

OPTIONAL EXPEDITED AUTHORIZED LOCATIONS (2)

- | | | |
|---|----------------------------|------------|
| 1 | Omega Graduate School | Dayton, TN |
| 2 | University of Nevada, Reno | Reno, NV |



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: II.A.

MEETING DATE: May 16, 2024

SUBJECT: Off-Campus Center
University of Tennessee, Martin – Springfield Center

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

Pursuant to Tenn. Code Ann. § 49-7-202(q)(3), the Tennessee Higher Education Commission is to review and approve or disapprove all proposals for off-campus locations at public institutions.

Per THEC Policy A1.4A Off-Campus Instruction for Community Colleges and Universities, an off-campus center is defined as a location that is geographically apart from the main campus where students can enroll and complete academic programs. Additionally, there must be a continuing administrative presence, evidenced by at least one (1) full-time or part-time administrator housed on-site.

The University of Tennessee, Martin (UT Martin) requests a center code for the Springfield Center on the Volunteer State Community College (VSCC) – Highland Crest Campus premises located at 150 Laureate Ave, Springfield, TN 37172 to be effective August 2024. Volunteer State Community College established its Springfield campus in 2011 to serve Robertson County and the surrounding region. The proposed center will provide programming to traditional learners, local adults, and high school students. Upon enrollment, students can complete coursework in four (4) degrees including Agricultural Business, Bachelor of Science (BSAB), Interdisciplinary Studies, Bachelor of Science (BIS), Agriculture and Natural Resources, Master of Science (MSANR), and Master of Business Administration (MBA).

UT Martin projects an annual enrollment of 25 full-time equivalent (FTE) students with an increase of five (5) FTE students per year, totaling 45 students by the 2028-2029 academic year. These projections are based on student interest from a previous partnership and expected population growth (7.3 percent from 2022-2027) and increasing job growth in Robertson County.

In addition to traditional face-to-face classes, UT Martin will leverage a mix of delivery methods, including flipped classrooms, online and distance learning coursework, and hybrid offerings to provide more effective utilization of resources and high-quality instruction for students seeking to continue their educational journey. This site requires one-time financial resources for signage and small equipment needs. UT Martin also plans to hire a center director, one (1) full-time faculty member, and several adjunct faculty as needed. UT Martin anticipates all expenses will be offset by yearly tuition and fee revenue acquired by the center.



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: II.B.

MEETING DATE: May 16, 2024

SUBJECT: Off-Campus Center
University of Tennessee, Health Science Center, College of Pharmacy –
Knoxville Center

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

Pursuant to Tenn. Code Ann. § 49-7-202(q)(3), the Tennessee Higher Education Commission is to review and approve or disapprove all proposals for off-campus locations at public institutions. Per THEC Policy A1.4A Off-Campus Instruction for Community Colleges and Universities, an off-campus center is defined as a location that is geographically apart from the main campus where students can enroll and complete academic programs. Additionally, there must be a continuing administrative presence, evidenced by at least one (1) full-time or part-time administrator housed on-site.

The University of Tennessee, Health Science Center (UTHSC) requests a center code for the College of Pharmacy, Knoxville Center on the University of Tennessee Medical Center (UTMC), Knoxville Campus premises located at 1924 Alcoa Highway, Knoxville, TN 37920. The proposed center will meet the growing demand for pharmacy education in the region and address healthcare workforce needs by offering students the coursework and clinical training necessary to attain their Doctor of Pharmacy (PharmD) degree. The program offers instruction in the areas such as mathematics, physics, chemistry, biochemistry, anatomy, physiology, pharmacology, pharmaceutical chemistry, pharmacognosy, pharmacy practice, pharmacy administration, applicable regulations, and professional standards and ethics. The off-campus location was originally used as a clinical site for the PharmD program. However, UTHSC started offering courses for clinical students on-site at the Knoxville Center, and students will be able to complete the PharmD starting in the Fall 2027 semester. UTHSC was not aware that they would need to have the location classified as a center, partially because clinical sites are exempt per THEC Policy A1.4A from requiring site codes. Once they discovered the oversight, they have been working with THEC and UT system staff to have the center approved.

UTHSC anticipates annual enrollment increases for its PharmD program, reflecting the pressing demand for pharmacists due to healthcare challenges such as the current physician shortage, suboptimal medication adherence, increased prescription drug use, and the aging U.S. population. Leveraging data from the Tennessee Department of Health and the Centers for Disease Control and Prevention, projections indicate a continued need for pharmacists, especially in areas like Knox County, characterized by notable healthcare concerns such as high rates of poor physical health days, adult obesity, and preventable hospital stays. This projected growth aligns with job market trends, with 85 percent of UTHSC students graduating with a PharmD in the Class of 2023 receiving job offers before graduation, and all graduates who sought employment being licensed and employed as pharmacists within three (3) months after graduation. Furthermore, the PharmD

contributes to the State's higher education completion agenda by addressing the significant need for pharmacists in Tennessee.

The Knoxville facility, situated at the University of Tennessee Medical Center, provides a stable educational infrastructure, with operational costs primarily covering faculty and staff salaries which are expected to be offset by projected tuition revenue. Led by Dr. James Wheeler, Associate Dean, the faculty at the Knoxville Center bring extensive experience in pharmacy education and practice. The center offers a four-year PharmD program aligned with the Memphis and Nashville curriculums while employing various delivery methods to optimize resource utilization and enhance instructional quality.



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: II.C.

MEETING DATE: May 16, 2024

SUBJECT: Off-Campus Center
University of Tennessee Health Science Center, College of Pharmacy – Nashville Center

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

Pursuant to Tenn. Code Ann. § 49-7-202(q)(3), the Tennessee Higher Education Commission is to review and approve or disapprove all proposals for off-campus locations at public institutions. Per THEC Policy A1.4A Off-Campus Instruction for Community Colleges and Universities, an off-campus center is defined as a location that is geographically apart from the main campus where students can enroll and complete academic programs. Additionally, there must be a continuing administrative presence, evidenced by at least one (1) full-time or part-time administrator housed on-site.

The University of Tennessee, Health Science Center (UTHSC) requests a center code for the College of Pharmacy, Nashville Center at the UTHSC Nashville Perimeter Park premises located at 301 S. Perimeter Park Drive, Suite 220, Nashville, TN 37211. The proposed center will meet the growing demand for pharmacy education in the region and address healthcare workforce needs by offering students the coursework and clinical training necessary to attain their Doctor of Pharmacy (PharmD) degree. The program offers instruction in the areas such as mathematics, physics, chemistry, biochemistry, anatomy, physiology, pharmacology, pharmaceutical chemistry, pharmacognosy, pharmacy practice, pharmacy administration, applicable regulations, and professional standards and ethics. The off-campus location was originally used as a clinical site for the PharmD program. However, UTHSC started offering courses for clinical students on-site at the Nashville Center, and students will be able to complete the PharmD starting in the Fall 2027 semester. UTHSC was not aware that they would need to have the location classified as a center, partially because clinical sites are exempt per THEC Policy A1.4A from requiring site codes. Once they discovered the oversight, they have been working with THEC and UT system staff to have the center approved.

UTHSC anticipates annual enrollment increases for its PharmD program, reflecting the pressing demand for pharmacists due to healthcare challenges such as the current physician shortage, suboptimal medication adherence, increased prescription drug use, and the aging U.S. population. Leveraging data from the Tennessee Department of Health and the Centers for Disease Control and Prevention, projections indicate a continued need for pharmacists, especially in areas like Davidson County, characterized by notable healthcare concerns such as high rates of poor physical health, adult obesity, preventable hospital stays, and a growing aging population. This projected growth aligns with job market trends, with 85 percent of UTHSC students graduating with a PharmD in the Class of 2023 receiving job offers before graduation, and all graduates who sought employment being licensed and employed as pharmacists within three (3) months after graduation. Furthermore,

the PharmD contributes to the State's higher education completion agenda by addressing the significant need for pharmacists in Tennessee.

The Nashville facility, situated at the Nashville Perimeter Park center, is situated in a commercial park, and is leased. There are no one-time expenditures. Five (5) pharmacy faculty members are located at the facility, in addition to Dr. Tracy Hagemann, Associate Dean. Recurring expenditures consist of salary and benefits for an administrator (Associate Dean), five (5) faculty members, and support staff members. The operating expenses cover the annual lease payments and general expenses common to any academic program. Revenues consist of tuition, calculated based on the projected enrollment. As it stands, the tuition revenue exceeds the cost of providing the PharmD program at the location. The center offers a four-year PharmD program aligned with the Memphis and Knoxville curriculums while employing various delivery methods to optimize resource utilization and enhance instructional quality.



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: II.D.

MEETING DATE: May 16, 2024

SUBJECT: Off-Campus Center
Tennessee College of Applied Technology Chattanooga/Chattanooga State
Community College – Hamilton County Jail and Detention Center

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

Pursuant to Tenn. Code Ann. § 49-7-202(q)(3), the Tennessee Higher Education Commission is to review and approve or disapprove all proposals for off-campus locations at public institutions. Per THEC Policy A1.4A Off-Campus Instruction for Community Colleges and Universities, an off-campus center is defined as a location that is geographically apart from the main campus where students can enroll and complete academic programs. Additionally, there must be a continuing administrative presence, evidenced by at least one (1) full-time or part-time administrator housed on-site. Typically, Tennessee Colleges of Applied Technology are not subject to this policy. However, Section 1.4A.1A distinguishes: “[i]n cases where a Tennessee College of Applied Technology (TCAT) is considered a part of a community college, as is the case with TCAT Chattanooga and Chattanooga State Community College, the joint institution will be considered under this policy.”

Tennessee College of Applied Technology Chattanooga (TCAT Chattanooga) requests a center code for the Hamilton County Jail and Detention Center located at 7609 Standifer Gap Rd. Chattanooga, TN 37421. The proposed center will provide programming to incarcerated individuals. These individuals will be offered opportunities for self-improvement, provided with goals for re-entry, and helped to attain a livable wage upon program completion. This program aims to extend access to postsecondary education to a population that otherwise would not have access. The initial program offering will be a Diploma in Cosmetology. Following the successful implementation of the Cosmetology program, there are plans to expand with other programs such as Industrial Electricity/Residential-Commercial Electricity and Carpentry/Building Construction. These programs will provide adult students with the necessary skills and credits needed to pursue further education in schools or college post incarceration.

TCAT Chattanooga projects an annual enrollment of 15 full-time equivalent (FTE) students. The initial trimester is expected have an enrollment of 5-10 students, with a projected increase of three (3) FTE students in the following year. However, enrollment is expected to stabilize at 18 students for the foreseeable future. In accordance with the 2021 Re-Entry Success Act, this program will provide compensation to Tennessee counties that provide evidence-based programming for inmates housed in county jails. Providing postsecondary education has been proven to lower recidivism rates and enables schools to reach marginalized communities, therefore expanding access to individuals who otherwise would not have these opportunities. While students are incarcerated, they have the opportunity to earn credits toward their education, setting the groundwork for potentially earning their diploma within the Hamilton center or upon re-entry at another school.

TCAT Chattanooga will utilize traditional face-to-face instruction methods in a renovated space within the Hamilton facility. The Hamilton County Sheriff's Office (HCSO) has been awarded a grant to bring education to incarcerated individuals as part of their preparation for re-entry. This grant allowed them to renovate their space based off the needs of the program as prescribed by the faculty. The grant will cover the contract salary for an instructor to teach at the facility and cover the book, tools, and supplies that are to be utilized by students. A portion of the tuition revenue will be used to cover the costs of travel for faculty and staff to and from the jail. TCAT Chattanooga will provide a full-time faculty member to instruct and oversee the 5-10 adult students participating in the program. HCSO will provide a coordinator at the detention center to assist with schedules, ordering of products, and selection of students. The anticipated total recurring expenditures are projected to be \$30,400, while total revenue is expected to reach \$44,192. The HCSO will provide the facilities, materials, and equipment to facilitate the success of the program.



TENNESSEE HIGHER EDUCATION COMMISSION

CONSENT CALENDAR ITEM: II.E.

MEETING DATE: May 16, 2024

SUBJECT: Off-Campus Center
Austin Peay State University – Innovation Academy Center

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

BACKGROUND

Pursuant to Tenn. Code Ann. § 49-7-202(q)(3), the Tennessee Higher Education Commission (THEC) is to review and approve or disapprove all proposals for off-campus locations at public institutions. Per THEC Policy A1.4A Off-Campus Instruction for Community Colleges and Universities, an off-campus center is defined as a location that is geographically apart from the main campus where students can enroll and complete academic programs. Additionally, there must be a continuing administrative presence, evidenced by at least one (1) full-time or part-time administrator housed on-site.

Austin Peay State University (APSU) requests a center code for the Innovation Academy Center located at 715 5th Avenue W. Springfield, TN 37172. Following the conclusion of the collaboration with the Highland Crest location, Robertson County requested that APSU continue to offer the Associate of Science degree in University Studies to its high school students. Austin Peay State University began offering courses at the Innovation Academy location in January of 2023, but these courses did not lead to a degree. APSU completed the consortium agreement with Innovation Academy and began offering the coursework leading to the Associate of Science degree in Fall 2024. The proposed center will provide programming to high achieving, dual enrollment students. Upon enrollment, students can complete coursework to earn credits toward both their high school education and their Associate of Science in University Studies Degree.

APSU projects an annual enrollment of 88 full-time equivalent students based on previous enrollment at both the Innovation Academy location and the recently closed Highland Crest location. APSU's University Studies, Associate of Science, is the only degree offered at this location. The program consists of 42 hours of general education coursework and 18 hours of electives. Upon completion of the University Studies, AS degree, students will usually have 60 remaining credits left to satisfy the requirements of a bachelor's degree. As part of Tennessee's Drive to 55 initiative, the focus remains on degree completion and addressing critical workforce shortages. Through participation in this program, students notably shorten their time to degree completion and accelerate their transition into the workforce.

APSU will leverage a mix of delivery methods, including traditional and online modalities for instruction. This site requires no expenses pertaining to the building or resources. The only expense to APSU is associated with the staffing of faculty to provide coursework at the location. APSU has regularly scheduled visits conducted by the university's dual enrollment staff and other relevant personnel to ensure that the space is adequate for student needs and meets all necessary requirements.



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: I.

MEETING DATE: May 16, 2024
SUBJECT: 2024-25 Binding Tuition and Fee Ranges
ITEM TYPE: Action
ACTION RECOMMENDATION: Approval

BACKGROUND

Since 2010, the Complete College Tennessee Act has required the Commission to make student fee and state appropriation recommendations concurrently. The FOCUS Act expanded THEC's authority on student fee levels, requiring that the Commission issue binding tuition and fee ranges each year. These ranges apply only to resident, undergraduate students on the tuition (maintenance fee) rate, as well as total maintenance and mandatory fees.

TENNESSEE'S TUITION AND FEE PROFILE

Average full-time, annual tuition and mandatory fees for 2023-24 is \$10,240 at public universities, \$4,765 at community colleges, and \$4,119 at the Tennessee Colleges of Applied Technology (TCATs). Tennessee's public higher education tuition and fee levels continue to be considered average compared to peers across member states of the Southern Regional Education Board. Tennessee's financial aid resources continue to be among the highest in the nation, according to the National Association of State Student Grant Aid Programs. In 2021-22, Tennessee ranked eighth in total state grant expenditures as a percentage of state fiscal support for higher education and had the sixth largest expenditure of grant dollars per estimated population.

BINDING TUITION AND FEE RANGES

In November 2023, the Commission approved a 0 to 4 percent guiding tuition range and tuition and fee range for 2024-25, in partnership with \$17.2 million to fund the outcomes-based funding formula and \$41.0 million to partially fund a 3 percent salary increase at our institutions of higher education.

On April 18th, the 113th General Assembly passed the 2024-25 General Appropriations Act, including funding to formula units of \$57.2 million for operating and salary increases. Unlike other state-funded entities, higher education salary increases rely on additional revenue to be generated by institutions through tuition increases, cost reductions, or a combination of the two. To make the salary increase whole and meet the same salary policy applied to all other state employees, institutions will need to fund a \$30.5 million balance—which may be met with remaining operating funds and tuition revenue (Attachment II).

Attachment I details the comparison of 2023-24 tuition and mandatory fee rates with the maximum allowed increase for each university and community college, and for the TCAT system under the ranges approved in November for 2024-25. To fully address the funding gap between the THEC request and the state budget, the THEC tuition model suggests a range of 0 to 6 percent.

Attachment II details the remaining balance of the 3 percent salary increase at each institution once operating increases and the state-funded portion of the salary increase made as part of the \$57.2 million appropriation improvement are considered.

SUMMARY

In November 2023, the Commission approved a 0 to 4 percent guiding tuition range and tuition and fee range for 2024-25, in partnership with \$17.2 million to fund the outcomes-based funding formula and \$41.0 million to partially fund a 3.0 percent salary increase at our institutions of higher education. The state provided an increase to formula units of \$57.2 million for operating and salary. For institutions to meet the full 3 percent salary increase, they must do so using their remaining operating funds, tuition increases, or cost reductions. To fully address this funding gap, the THEC tuition model suggests a range of 0 to 6 percent.

**Attachment I - Tuition and Fee Ranges
2024-25 Maintenance and Mandatory Fee Increase Scenario and Comparison - 4.00% Limit**

Institutions	2023-24		2024-25 Maximums	
	Maintenance Fee	Mandatory Fee	Combined	Maintenance Fee
Austin Peay	\$ 7,356	\$ 1,667	\$ 9,023	\$ 7,650
East Tennessee	7,950	2,000	9,950	8,268
Middle Tennessee	7,908	1,970	9,878	8,224
Tennessee State	7,324	1,247	8,571	7,617
Tennessee Tech (Admitted prior to Fall 2020)	8,436	1,320	9,756	8,773
Tennessee Tech (Flat Rate Model) ¹	9,510	1,320	10,830	9,890
University of Memphis	8,520	1,824	10,344	8,861
Chattanooga	\$ 4,452	\$ 326	\$ 4,778	\$ 4,630
Cleveland	4,452	306	4,758	4,630
Columbia	4,452	340	4,792	4,630
Dyersburg	4,452	316	4,768	4,630
Jackson	4,452	292	4,744	4,630
Motlow	4,452	312	4,764	4,630
Nashville	4,452	274	4,726	4,630
Northeast	4,452	318	4,770	4,630
Pellissippi	4,452	352	4,804	4,630
Roane	4,452	310	4,762	4,630
Southwest	4,452	326	4,778	4,630
Volunteer	4,452	300	4,752	4,630
Walters	4,452	295	4,747	4,630
UT Chattanooga (UG - Soar in Four) ²	\$ 8,232	\$ 1,912	\$ 10,144	\$ 8,561
UT Knoxville	11,332	2,152	13,484	11,785
UT Martin	8,546	1,662	10,208	8,888
UT Southern	9,270	1,236	10,506	9,641
TN Colleges of Applied Tech	\$ 3,870	\$ 249	\$ 4,119	\$ 4,025
University Avg	\$ 8,541	\$ 1,699	\$ 10,240	\$ 8,883
Community College Avg	\$ 4,452	\$ 313	\$ 4,765	\$ 4,630
				\$ 4,955

1 - Full-time students admitted in Fall 2020 or after at Tennessee Technological University will pay a flat rate for 15 credit hours per semester, regardless of the number of hours take. Full-time students admitted prior to Fall 2020 and part-time students will be charged a per credit hour rate for the first 12 credit hours and a discounted rate for additional hours.

2 - Beginning in 2019-20, first-time, full-time students enrolled at UT Chattanooga will pay a flat rate for 15 credit hours per semester, regardless of how many hours taken. Returning and part-time students will be charged a flat rate for 12 credit hours per semester, regardless of how many hours are taken.

Attachment II

2024-25 Legislative Action - 3.0% Salary Increase

	A	B	C	= (A + B) - C
	Operating Increase	State Portion of Salary Increase ¹	Full Salary Increase Cost	Remaining Available for Operating
Locally Governed Institutions				
Austin Peay	\$17,300	\$1,682,400	\$3,058,800	\$ (1,359,100)
East Tennessee	1,070,500	2,751,300	5,002,500	(1,180,700)
Middle Tennessee	2,250,300	3,795,600	6,900,900	(855,000)
Tennessee State	(1,777,800)	1,751,100	3,212,700	(3,239,400)
Tennessee Tech	296,200	1,839,600	3,394,500	(1,258,700)
University of Memphis	3,652,000	4,525,500	8,228,100	(50,600)
<i>subtotal</i>	\$5,508,500	\$16,345,500	\$29,797,500	\$ (7,943,500)
Community Colleges ²				
Chattanooga	(\$400,400)	\$950,294	\$1,442,700	\$ (892,806)
Cleveland	461,500	334,998	504,900	291,598
Columbia	(330,100)	505,010	762,900	(587,990)
Dyersburg	905,600	340,616	513,000	733,216
Jackson	(286,700)	383,193	579,000	(482,507)
Motlow	(1,185,900)	618,253	936,600	(1,504,247)
Nashville	(215,700)	710,207	1,077,300	(582,793)
Northeast	(1,069,000)	609,087	925,200	(1,385,113)
Pellissippi	(1,533,800)	1,177,963	1,791,900	(2,147,737)
Roane	(1,260,300)	722,330	1,093,800	(1,631,770)
Southwest	(1,019,800)	904,760	1,369,200	(1,484,240)
Volunteer	(591,700)	793,883	1,204,800	(1,002,617)
Walters	2,406,800	696,606	1,056,600	2,046,806
<i>subtotal</i>	(\$4,119,500)	\$8,747,200	\$13,257,900	\$ (8,630,200)
UT Universities ³				
UT Chattanooga	\$1,354,200	\$2,219,800	\$4,077,300	\$ (503,300)
UT Knoxville	\$10,575,400	\$9,207,800	18,188,100	1,595,100
UT Martin	\$825,600	\$1,110,700	2,082,600	(146,300)
UT Southern	\$75,000	\$156,600	306,000	(74,400)
<i>subtotal</i>	\$12,830,200	\$12,694,900	\$24,654,000	\$ 871,100
TN Colleges of Applied Tech	\$1,245,400	\$2,249,700	\$2,881,500	\$ 613,600
Total Academic Units	\$15,464,600	\$40,037,300	\$70,590,900	\$ (15,089,000)

1 - Salary increases for formula units are partially covered by state appropriations. The state provides 55% of funding for salary increases at the universities, 67% at community colleges, and 80% at the TN Colleges of Applied Tech.

2 - Legislative action is for the community college sector as a whole. Institutional detail displayed here is estimated and for informational purposes only.

3 - While UT Southern is not currently included in the outcomes-based funding formula during the data standardization process, the university is included in the binding tuition and tuition and fee ranges.

Note: This attachment does not include assumptions for the effects of other real, non-personnel inflationary cost-drivers on institutions.



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.A.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
East Tennessee State University
Master of Music (MM)
CIP Code: 50.0901 (Music, General)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

East Tennessee State University (ETSU) proposes a Master of Music (MM) with several concentrations and emphases, including: Conducting (emphasis in Choral, Wind Band, or Orchestral), Performance (Emphasis in Strings, Woodwinds, or Brass), Percussion Performance, Piano Performance, Vocal Performance, Music Education, and Composition. The proposed program will allow students to pursue an advanced study in specialized areas of music and will focus on performance and pedagogical skills.

The program was developed in response to significant growth in the undergraduate program over the past five (5) years and market research on the expansion of other Master of Music programs. Additionally, the program was designed to provide students the opportunity to gain workforce experience through graduate assistantships with community partners, as well as provide an avenue for students to hone technical skills prior to professional performance auditions. Furthermore, students interested in professional composition, performance, conducting positions, or music education, may seek continuing education credits to enhance their skills and their promotion possibilities. The proposed MM will require 32-36 hours of coursework and will be primarily on-ground at ETSU's main campus.

The proposed Master of Music at ETSU would be the only such program easily accessible to East Tennesseans and will appeal to students in bordering states as well. The proposed program will have a positive impact on the existing ETSU music program, develop deeper relationships with music educators throughout the region and expand overall enrollment in ETSU's Department of Music. Rapid regional growth has expanded the market for live performance, including two (2) orchestras. The new ETSU Martin Center for the Arts will offer unique opportunities for professional development and performance to students.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Master of Music was approved by the East Tennessee State University Board of Trustees on November 19, 2021.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Master of Music aligns with the State Master Plan for Higher Education in several ways. The program promotes family prosperity by offering the program to students in distressed counties and

provides professional growth opportunities for teachers in the region while allowing undergraduate students to further their training and advance their career trajectories. The proposed program aligns with the state master plans goal to engage adult learners, as it provides flexible learning opportunities for adult students who would like to further their education while remaining in the workforce. The program also aims to prepare students for the workforce needs of 2030 as many employment opportunities associated with the proposed program (such as teachers, music directors, composing, musicians, and singers) are expected to grow in the next decade according to the United States Bureau of Labor Statistics.

The proposed program aligns with ETSU's Strategic Plan by enhancing the university's role as an academic leader in the region and expanding partnerships with Johnson City and the West Walnut Street Corridor Redevelopment by preparing students to work in the arts locally.

CURRICULUM

The proposed Master of Music will require 32-36 hours of coursework, depending on the concentration, as well as 11 credit hours of a shared curricular core focused on real-world application. The program includes a symposium course that will bring in guest speakers currently working in the music industry. All students will complete a culminating project and the primary delivery method varies by concentration. The performance and conducting concentrations will be primarily on-ground at the ETSU main campus, the composition concentration will be a hybrid offering, and the music education concentration will be entirely online to accommodate working students. Plans of study are recommended to students by area of emphasis, but students can fulfill requirements with any of the courses listed for their concentration. Student learning outcomes align with requirements for accreditation by the National Association of Schools of Music (NASM); ETSU's undergraduate programs are currently NASM accredited, and the proposed program will seek NASM accreditation if approved. At the completion of the program, students will be able to:

- Formulate a focused research question that can lead to discovery and new understanding in the music field.
- Develop research plans that are applicable to specific research questions.
- Demonstrate depth of knowledge that includes both historical background and current practices demonstrated through, performances, discussion, and technique demonstrations.
- Practice a high level of self-critique and analysis for musical ability and pedagogical strengths.
- Critique musical performances for strengths and weaknesses using terminology that is appropriate to the industry.
- Work collaboratively with other musicians to both perform and design a performance event.
- Design a teaching curriculum for either a private student or ensemble that is effective and adaptive to student needs.
- Defend a performance/conducting/compositional decision based on historical precedent, practical application, and musical integrity.
- Write program notes that are well researched and understandable to public audiences.
- Perform, conduct, and/or create music at a high level of musicianship, technicality, and expressiveness.

The proposed program is comprised of 68 new courses, most of which have previously been taught at the undergraduate level. All new courses have been built and approved at the institutional level.

PROGRAM PRODUCTIVITY

Projections for the Master of Music estimate that five (5) students will enroll in the first program cohort, with total enrollment growing to 27 in year five. The program anticipates 20 percent attrition which is typical of other graduate programs at the university. The figures below account for full and part-time enrollments. The program projects its first graduates in year two.

	2024-25	2025-26	2026-27	2027-28	2028-29
Enrollment	5	14	21	25	27
Graduates	0	4	9	10	12

PROGRAM DUPLICATION

Master of Music programs are offered at six (6) public institutions in Tennessee, including Austin Peay State University, Middle Tennessee State University, the University of Memphis, University of Tennessee, Chattanooga, and University of Tennessee, Knoxville and one (1) private institution (Belmont University).

The proposed program is unique, due to geographic location and hybrid format, as there are no MM programs offered at public institutions within a 100-mile radius.

EXTERNAL JUDGMENT

A virtual external review of the proposed program was conducted on September 20, 2023, by Dr. Randy Kohlenberg, Professor of Trombone, Director of Graduate Studies, and Assistant Director of the School of Music at the University of North Carolina, Greensboro. The site visit included meetings with campus administrators and faculty at ETSU, as well as community partners and current and potential students. Dr. Kohlenberg noted: “[t]he thoroughness of the New Academic Program Proposal and the enthusiasm and support based on the interviews [at the site visit] ensure that immediate approval and implementation is warranted.” He wrote that the “curriculum is well-planned to equip completers with the skills and dispositions to be successful in their music careers,” and was very complimentary of the degree of curriculum planning, faculty expertise, and administrative support and enthusiasm for the proposed program. Finally, Dr. Kohlenberg expressed confidence that the proposed curriculum will provide sufficient opportunity for graduates, writing: “[e]ach area in the program appears to prepare completers for employment and advancement in their prospective professions.”

STUDENT DEMAND

To assess demand, ETSU surveyed current undergraduates majoring in all music concentrations. The survey had 113 responses, 88 percent of whom indicated that they plan to pursue graduate degrees in music later in their careers. The survey data confirmed anecdotal evidence of interest in a MM program. According to the Department of Music, faculty receive an average of 20 requests from people outside of the university each year interested in master’s-level music training. Inquiries have increased since current students have heard about the potential for adding a graduate program, demonstrated by increased calls, conversations, and letters of support from former students.

In addition, 15-20 percent of ETSU music undergraduates attend graduate programs at other universities, while another 25-30 percent pursue graduate school later in their careers. ETSU received several letters of support from current and former ETSU music undergraduates speaking to a desire for the proposed program in the region to allow students to continue their studies, as well as speaking to positive experiences had while studying in the Department of Music.

The institution plans to market the program to current and former music undergraduates, as well as music educators in the region, through existing marketing strategies such as social media and print, conference tabling, music events tabling, and recruiting at local high schools. Additionally, as community partnerships grow and strengthen, the department anticipates an uptick from local organizations and school systems.

Recruitment efforts will vary by concentration, and the campus has developed concentration-specific recruitment plans.

OPPORTUNITIES FOR PROGRAM GRADUATES

The proposed program will prepare graduates for a variety of positions, including music educators, composers, performers, music business, and other music-adjacent positions. According to the Bureau of Labor Statistics, graduate study in music often leads to independent employment that is not tied to a full-time employer, as well-trained musicians participate in the gig economy or on a commission/contract system. The Arts, Entertainment, and Recreation sector is projected to grow by 60 percent from 2020-2030, while the US Department of Labor predicts a 34 percent increase in the need for Musicians and Singers and nearly a 14 percent increase in the need for Music Directors and Composers in the state. Growth in the music industry is also expected in neighboring states in the East Tennessee region (North Carolina and Virginia). While not all of this growth will be in fields requiring a graduate degree, many of the jobs will.

Opportunities are likely to vary by concentration. Graduates in the music education concentration will be especially in demand given the number of vacant music education positions in the state. Johnson City is experiencing significant population growth, projected to be up to 35 percent over the next decade, and as the population grows, so too will demand for graduate-trained musicians. Public schools in the Tri-Cities area (Johnson City, Kingsport, Bristol) have large secondary music programs and bands, increasing demand for music educators. Conducting concentration graduates would also be in high demand as the population grows for churches, community music ensembles, and professional music ensembles.

Letters of support indicate employer demand for the MM in the music industry in Tennessee—an industry that generates more than \$3.2 billion annually—as well as a desire and willingness to hire ETSU graduates. Several local organizations have expressed a desire to fund and hire graduate students, including Johnson City Symphony Orchestra, the Mountain Empire Children’s Chorus, the Appalachian Equality Chorus, The Symphony of the Mountains, the Civic Chorale of Johnson City, and Blair Music Academy. Additional letters of support were received from Full Sail University, Blue Lake Fine Arts Camp, Johnson City Schools, Tri-Cities Jazz Orchestra, Northwestern University, Classical Movements, and West Ridge High School.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

ETSU is confident that the Department of Music has the capacity to deliver the proposed MM program. The department currently has 31 faculty members of varying ranks, all of whom are eligible to serve on graduate committees. The planning committee for the proposed program anticipates two (2) additional hires in Music Theory and Composition as well as employing graduate teaching assistants to ensure that faculty load remains balanced. New faculty hires are planned in year two and year four.

The proposed program will include opportunities for graduate student assistantships, starting with five (5) in the first year and increasing to eight (8) by year four. Assistantships will provide students with applicable workforce experience with community partners. The ETSU Martin Center for the Arts also offers unique opportunities for professional development and performance to students.

Existing facilities are adequate for the addition of a Master of Music, and the university intends to add practice rooms to accommodate the increase in students.

Students enrolled in the program will have access to all support services by the university. The Director of Graduate Music Studies will provide advising and support for students, while faculty will work one-on-one with students to provide career counseling and hands-on learning support.

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. The benchmarks include, but are not limited to, enrollment and graduation, program cost, progress toward accreditation, and other metrics set by the institution and staff. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program. If additional time is needed and requested by the institutional governing board, the Commission may choose to extend the monitoring period.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Master of Music program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

<i>Estimated Costs to Deliver the Proposed Program</i>						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff						
Non-Instructional Staff						
Graduate Assistants						
Accreditation						
Consultants		\$1,000				
Equipment		\$3,500				
Information Technology						
Library resources						
Marketing						
Facilities						
Travel						
Other						
<i>Total One-Time Expenditures</i>	<i>\$0</i>	<i>\$4,500</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff			\$75,000	\$77,625	\$157,123	\$162,622
Non-Instructional Staff		\$4,400	\$4,400	\$4,400	\$4,400	\$4,400
Graduate Assistants		\$82,420	\$98,904	\$115,388	\$131,872	\$131,872
Accreditation						
Consultants						
Equipment						
Information Technology						
Library						

Marketing						
Facilities						
Travel						
Other: General Operating		\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<i>Total Recurring Expenditures</i>	\$0	\$96,820	\$188,304	\$207,413	\$303,395	\$308,894
Grand Total (One-Time and Recurring)	\$0	\$101,320	\$188,304	\$207,413	\$303,395	\$308,894

Table 2: Projected Revenue

Projected Revenue						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$0	\$70,272	\$122,976	\$149,328	\$166,896
Grants						
Other: GA Stipend Partnerships		\$14,000	\$21,000	\$28,000	\$28,000	\$28,000
Other: Donations		\$1,000	\$1,500	\$2,000	\$2,000	\$2,000
Other: Course Fees		\$3,400	\$9,520	\$14,280	\$17,000	\$18,360
Other: Reallocations (Grad Assistant Tuition Waivers)		\$82,920	\$86,012	\$40,157	\$107,067	\$93,638
Total Revenue	\$0	\$101,320	\$188,304	\$207,413	\$303,395	\$308,894



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.B.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
Tennessee State University
Business Data Analytics, Master of Science (MSBDA)
CIP Code: 30.7102 (Business Analytics)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

Tennessee State University (TSU) proposes a 30-credit Master of Science in Business Data Analytics (MSBDA) designed for online delivery and twelve-month completion. The proposed program will be offered in a cohort model. Students will progress together through a common program of study with each course lasting four (4) weeks modeling the existing online Master of Business Administration (MBA) program, which is also offered by TSU's College of Business. All students will take a culminating capstone course, applying course concepts to real-world problems in partnership with industries serving on the College of Business advisory board.

The proposed program will provide access to online training in a high-demand field and will prepare graduates to work and excel in a variety of professional capacities across industries reliant on data analytics for decision making. The proposed MSBDA will provide internships and cooperative learning experiences to enrolled students, ensuring students apply skills and knowledge gained through the program in a real-world setting. The proposed program offers unique training in the application of data analytics techniques in a business context, while including additional instruction in management information systems, ensuring that students are prepared to engage in the technical side of data analytics as well.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Business Data Analytics, MSBDA program was approved by Tennessee State University's Board of Trustees on June 15, 2023.

PROPOSED IMPLEMENTATION DATE

January 1, 2025

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Business Data Analytics, MSBDA aligns with the State Master Plan for Higher Education by preparing students with the skills necessary to thrive in a high-demand technology field through an affordable and accessible program, allowing sustained family prosperity and increased student access. The proposed program will maximize chances of student completion through a cohort model and targeted, early faculty intervention, which aligns with the student success focus of the state master plan. Finally, the proposed MSBDA supports the future workforce by preparing graduates for high-demand jobs in an ever-expanding field.

The proposed program supports TSU’s mission by preparing a diverse group of competitive graduates and focusing on academic excellence through scholarly inquiry, teaching, research, lifelong learning, and public service. Program graduates will be positioned to serve as leaders in the global workforce, aligning with TSU’s strategic plan goals to “produce scholars to change the world,” and “to create a transformative educational environment that impacts Middle Tennessee and beyond.”

CURRICULUM

The proposed program will consist of 30 credit hours of coursework offered online. Twenty-one hours will be core courses, with an additional nine (9) hours of elective courses. Coursework will be completed in a cohort model over one (1) calendar year, with all students enrolling together in one (1) four-week course at a time. Twelve new courses will be developed for the program. The proposed program will be housed in the TSU College of Business, which is currently accredited by the Association to Advance Collegiate Schools of Business (AACSB).

Upon completion of the proposed program, students will be able to:

- Define problems to be addressed through data analysis techniques.
- Demonstrate the ability to convert client’s business (or problem domain) into analytics project requirements.
- Demonstrate the ability to collect data from different external sources and corporate databases, to assess data quality, and to provide analysis in terms of exploratory data analysis and data visualization.
- Demonstrate the ability to clean and transform raw data sets for further data analytics processes.
- Demonstrate the ability to use various machine learning algorithms and statistical modeling techniques to the data, including feature engineering and parameter optimization.
- Demonstrate the ability to use propose model validation, evaluation methods, and performance metrics.
- Demonstrate the ability to interpret model outputs, develop managerial and technical implications, and express oneself clearly, accurately, and professionally in both oral and written form.
- Demonstrate proficiency in various data analytics and visualization tools including R, Python, Tableau, Microsoft Power BI, SQL, and database programming.

PROGRAM PRODUCTIVITY

Projections for the Business Data Analytics, MSBDA program estimate that 20 students will enroll in the first year, with total enrollment of 30 by year five. The program will graduate its first students in year one. The campus anticipates low attrition figures due to the cohort model, early faculty intervention, and graduation and attrition data for similar existing programs.

	2025-26	2026-27	2027-28	2028-29	2029-30
Enrollment	20	22	24	27	30
Graduates	19	21	32	26	29

PROGRAM DUPLICATION

Several public and private institutions in Tennessee offer master’s degrees and graduate certificates in Data Science and Data Analytics. Master’s degrees are offered at East Tennessee State University, Middle Tennessee State University, University of Memphis, University of Tennessee, Chattanooga, University of Tennessee, Knoxville and Vanderbilt University. Institutions offering Data Analytics and Business Analytics

concentrations in an MBA program include the University of Memphis, Union University, University of Tennessee, Chattanooga, and Lincoln Memorial University. Graduate certificates are offered by Austin Peay State University, Middle Tennessee State University, East Tennessee State University, and University of Tennessee, Knoxville. TSU maintains that the proposed program is unique due to its online delivery mode, cohorting, inclusion of management information systems training, and affordability.

The Computer Science Department at TSU offers a Master of Science in Data Science program, but TSU does not anticipate that enrollments will be impacted by the implementation of the proposed program since the methods and training differ.

STUDENT DEMAND

Current TSU undergraduate students enrolled in College of Business programs were surveyed about their interest in the proposed program in Fall 2022. The 70 responses expressed positive interest in the program, with 90 percent indicating that the proposed Business Data Analytics program would provide them with a better career opportunity; 93 percent indicating that they believed that the degree would provide them with better earning potential; and 97 percent of the respondents indicating their belief that the applied nature of the program would yield the skills needed in the field. Further, 67 percent of the respondents indicated an interest in enrolling in the proposed program.

OPPORTUNITIES FOR PROGRAM GRADUATES

Data analytics is an expanding, high-demand field with many opportunities for program graduates. In Tennessee, growth is centered in manufacturing, finance, real estate, and healthcare, with the long-term growth of the state's economy contingent on a strong, well-trained workforce in data analytics. *The State of Middle Tennessee Tech 2023 Report* projected an 18 percent growth rate from 2022-2027 in tech jobs in the region, as well as a 23 percent growth rate for data scientists in the same area. A 2023 Noble Desktop report projected a 36 percent growth for data scientist jobs from 2021-2031, with approximately 13,500 job openings annually in Tennessee. Finally, the United States Bureau of Labor Statistics projects Data Analysts to grow by 25 percent between 2020 and 2030, a much more pronounced increase than for other professions. These openings are expected to be centralized in major metropolitan areas, including Nashville.

TSU conducted an industry/corporate survey during the Fall semester of 2022 to determine the interest of organizations in the proposed Business Data Analytics, MSBDS. Seventy-three percent of the 30 respondents indicated that the program would benefit their employees, and suggested they would be willing to enroll their employees in the program. Responses stemmed from a variety of industries, including but not limited to information technology, banking and finance, healthcare, and accounting.

Letters of industry support indicate willingness to partner with the proposed program are included from CompTIA and Ascension Together with Compassus.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Six (6) full-time, tenured faculty will teach in the proposed program, and modest administrative resources are requested to support an existing faculty member to direct the program. Existing space on the TSU Avon Williams campus will be utilized for the proposed program, and the site has sufficient classrooms, computer labs, library resources, and tools required for online course delivery such as video conference tools. The program will be offered fully online, so additional physical resources are not required. One (1) graduate assistantship is requested to provide online tutoring services for students enrolled in the proposed program, and funds to support marketing the proposed program are included in the financial projections.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during an in-person site visit on February 22, 2024 by Dr. Michael Choi, Clinical Associate Professor and Director of the Master of Science in Management Information Systems at the University of Illinois, Chicago. The site visit included meetings with campus administrators and faculty from TSU, as well as current TSU students and industry partners.

Dr. Choi recommended approval of the proposed Master of Science in Business Data Analytics, noting the “enthusiasm” of the administration, department, and students for the proposed program. Dr. Choi indicated that “existing faculty can accommodate the on-line delivery method” due to the online teaching support team in the College of Business. Dr. Choi described the “nationwide need for the skills” developed through such a program and added that the “prospective local job markets will grow rapidly” as Nashville industry continues to thrive. Finally, Dr. Choi commended TSU for proposing an “affordable” program in “one of the fastest growing jobs in all business areas.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Business Data Analytics, MSBDA program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

Estimated Costs to Deliver the Proposed Program						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Faculty Lead)						
Accreditation						
Consultants	\$2,000					
Equipment						
Information Tech						
Library						
Marketing						
Facilities						
Travel						
Other						
<i>Total One-Time Expenditures</i>	<i>\$2,000</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5

Faculty & Instructional Staff (Note 1)		\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
Non-instructional Staff (Note 2)		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Graduate Assistants						
Accreditation						
Consultants						
Equipment						
Information Tech						
Library						
Marketing		\$33,000	\$33,000	\$33,000	\$33,000	\$33,000
Facilities						
Travel						
Other						
<i>Total Recurring Expenditures</i>	\$0	\$77,000	\$77,000	\$77,000	\$77,000	\$77,000
Grand Total (One-Time and Recurring)	\$2,000	\$77,000	\$77,000	\$77,000	\$77,000	\$77,000

Table 2: Projected Revenue

Projected Revenue						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$303,810	\$335,790	\$367,770	\$415,740	\$463,710
Grants						
Other						
Total Revenue	\$0	\$303,810	\$335,790	\$367,770	\$415,740	\$463,710



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.C.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
Tennessee State University
Public Health, Doctor of Philosophy (PhD)
CIP Code: 51.2201 (Public Health, General)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

Tennessee State University (TSU) proposes a 72-credit hour Doctor of Philosophy (PhD) in Public Health designed to be completed in four (4) years. The proposed program will be offered on-ground with some synchronous, online delivery allowing for national collaboration through the Technology Hub, a TSU partnership with Amazon, Apple, and Massachusetts Institute of Technology (MIT), as well as the HBCU C² system, which is designed to foster research at HBCUs across the country. The proposed program will offer a concentration in Public Health Sciences and is designed to prepare researchers at the doctoral level. The proposed program will be the only program in the state to examine public health issues such as pandemics, health disparities, environmental health, and global health through a holistic cultural competency framework approach. Students will receive advanced instruction in the core disciplines of public health, including epidemiology, biostatistics, environmental health, policy, and behavioral science, as well as courses that examine the underlying causes of and the impact of health disparities, alongside the development of culturally relevant strategies to address healthcare disparities.

Graduates of the proposed Public Health, PhD will be prepared for careers in public health research, senior level administration, policy making, and education. The proposed program was developed in direct response to stated desires by the Tennessee Department of Health and the Metro Nashville Public Health Department, as well as the Center for Disease Control and Prevention and the Health Resources and Services Administration for a diverse pool of trained public health professionals to support health services in Tennessee. Providing doctoral-level training in public health at Tennessee's public HBCU aligns with priorities from the United States Department of Health and Human Services' Office of Minority Health to increase public health researchers with cultural competency to increase health outcomes for African Americans and other vulnerable populations.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Public Health, PhD program was approved by Tennessee State University's Board of Trustees on June 15, 2017.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Public Health, PhD supports the State Master Plan goal to provide “workforce and economic development and enhanced competitive research” and will contribute to desired “improvements to public health and improved civic engagement.” Further, the program will provide skilled, credentialed graduates who are prepared for work in the high-demand fields of healthcare research and will provide an accessible pathway for underrepresented students to attain an advanced degree. Finally, the proposed Public Health, PhD aligns with workforce development goals in the State Master Plan by ensuring skilled Tennesseans are available to employers in the public health sector.

The proposed program aligns with TSU’s institutional mission and strategic plan by creating an academic program that “prepares a diverse population of leaders” by offering a pathway to advanced public health training for diverse students; by offering “affordable and accessible education programming” through a doctoral program at a lower cost than private institutions in the metro Nashville area; and by “cultivat[ing] a climate of interdisciplinary research” through an increase in scholarly inquiry, research, and public service in the proposed program. The program will provide opportunities for collaboration with programs across TSU’s campus, such as the College of Agriculture, School of Nursing, and the Center for Prevention Research and with other institutions to bolster and expand research opportunities.

CURRICULUM

The proposed program will consist of 72-credit hours of coursework, offered mostly on-ground. Students will complete 18 credit hours in core courses, including Health Administration and Policy, Health Behavior, Biostatistics, Environmental Health, and Epidemiology. All students will complete 12-15 credit hours of research methods (quantitative, qualitative, community-based research, program planning, and mixed methods), and 12 additional hours of public health science focused courses. Finally, students will select 18 hours of electives aligned to their research focus, and complete 12-credit hours of dissertation research. Twenty-seven new courses will be developed for the program.

The proposed Public Health, PhD will be housed in the Department of Public Health, Health Administration, and Health Sciences in the College of Health Sciences. In the future, TSU is planning to create a School of Public Health to house the proposed program along with existing public health-focused programs. The department will seek accreditation with the Council on Education for Public Health (CEPH), as well as membership in the American Public Health Association (APHA) and the Consortium of African American Public Health Programs (CAAPHP). Current undergraduate and graduate degrees in public health at TSU are accredited by CEPH.

Program outcomes for the proposed program will ensure students will be able to:

- Critically read and synthesize published literature.
- Assess appropriateness of study design and analytic approaches, and recommend and describe additional feasible approaches.
- Conceptualize and specify a structured research problem which encompasses developing viable alternatives.
- Conduct and analyze research that advances current understanding of specific problems to address gaps in knowledge.
- Write a study protocol, know how to recruit subjects, and develop study instruments.
- Collect and manage, or supervise the collection, and management of data.
- Analyze health disparities related to cultural norms and differences.
- Apply research methods to investigate social and environmental factors that contribute to different health outcomes within different populations.

- Apply standard public culturally competent modalities to the measurement of behaviors, conditions, and exposures that impact community health.

PROGRAM PRODUCTIVITY

Projections for the Public Health, PhD program estimate that six (6) students will enroll in the first year, with total enrollment of 16 by year seven. The program will graduate its first students in year four. The campus anticipates low attrition figures due to the requirements of CEPH accreditation for doctoral programs in public health, which requires retention of at least 80 percent. TSU is positioned to provide robust retention and graduation rates aligned with admission criteria and ongoing supports for admitted students.

	2024-5	2025-6	2026-7	2027-8	2028-9	2029-30	2030-1
Enrollment	6	10	14	18	15	16	16
Graduates	0	0	0	6	4	4	3

PROGRAM DUPLICATION

Five (5) higher education institutions in Tennessee currently offer public health doctoral programs, though none of those programs are at public institutions in the Nashville metropolitan area. The University of Memphis, University of Tennessee Health Science Center, the University of Tennessee, Knoxville, and Vanderbilt University offer PhDs in Public Health and related areas (such as Health Outcomes and Policy Research, Epidemiology and Biostatistics, and Public Health Sciences). East Tennessee State University and University of Tennessee, Knoxville currently offer a Doctor of Public Health (DrPh), although UTK’s program is currently in phase out and will terminate in 2025.

TSU also offers a Master of Public Health and is confident the proposed Public Health, PhD will not have a negative impact and will likely enhance the existing program through increased opportunity for research for all students.

STUDENT DEMAND

From 2016-2022, more than 25 percent of the 51 graduates from the TSU Master of Public Health program expressed interest in pursuing a PhD during their exit interviews. In 2019, TSU surveyed undergraduate and graduate students affiliated with TSU’s Department of Public Health, Health Administration, and Health Sciences. Of the 369 respondents, 77 percent (n=284) were moderately or very interested in pursuing a PhD in Public Health at TSU. Additionally, in 2020, Kaiser Health News reported that between 2010 and 2020, applications to public health programs have increased 75 percent and new enrollments increased 83 percent, showing widespread demand for public health training.

OPPORTUNITIES FOR PROGRAM GRADUATES

Program graduates will be prepared for various careers in public health research, including positions in postsecondary education, health education, epidemiology, biostatistics, health policy, as well as health safety. Trained, culturally competent healthcare workers and researchers are increasingly in demand for a variety of reasons, including changing demographics and an increased need for health disparities research. The United States Bureau of Labor Statistics projects that 2.4 million new public health jobs will be created through 2029, not including replacing the 40 percent loss to the public health workforce that is expected due to retirement.

Tennessee’s 2020 Master Plan suggests that the state should “support the development, recruitment, and retention of a sufficient and quality health and healthcare workforce.” The Tennessee Department of Health, Health Disparity Taskforce for Tennessee has identified a growing increase in health disparities and social

inequities that could be addressed through the translation and dissemination of culturally competent research in public health by doctoral-level researchers. Finally, several federal agencies have identified increased need for educators, researchers, and practitioners in public health areas to address disparities in health outcomes, including the National Institutes of Health, the American Public Health Association, and the Substance Abuse and Mental Health Services Administration.

Letters of support indicating a willingness to partner and sponsor internships for students enrolled in the proposed program are included from: the Tennessee Department of Health, Tennessee Representative Harold Love, Congregational Health and Education Network, the TSU College of Agriculture, Saint Augustine's University, Chicago State University, Metro Nashville/Davidson County Health Department, Vanderbilt University Medical Center, Urban Campus and Core, Morgan State University, and Texas Southern University.

Additional existing community and industry partnerships for public health programming at TSU include TSU's Department of Human Sciences, the Consortium of African American Public Health Programs, Kaiser Permanente, American College of Healthcare Executives, Association of Public Health Nutritionists, American Heart Association, Tennessee Kidney Foundation, Focus First, Harvard University, Boston School of Public Health, University of California at Irvine, the Center for Health Prevention, the Tennessee Department of Veterans Affairs, the American Red Cross, the American Cancer Society, Eli Lilly Company, and the Office of the Center for Disease Control Director.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Twelve full-time, tenured or tenure-track faculty will teach in the program, and the department plans to hire one (1) additional full-time graduate faculty member. The program will hire a program coordinator to provide support for program accreditation and management, along with outreach support for recruitment and enrollment of students. Costs associated with these hires will be \$108,000 and \$67,500 annually and are expected to start in year one. Existing space on the TSU Avon Williams campus will be used for offices for faculty and graduate assistants, and study carrels will be provided for all enrolled students. One (1) graduate assistantship will be offered starting in year one, increasing to two (2) assistantships in year two and beyond.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a virtual site visit on November 29, 2023 by Dr. Cynthia Harris and Dr. Jennifer Reneker. Dr. Harris is Associate Dean and Director and Professor of the Institute of Public Health at Florida A&M University, while Dr. Reneker is Associate Professor and Interim Chair of the Department of Population Health Sciences at the University of Mississippi Medical Center. The site visit included meetings with campus administrators and faculty from TSU, as well as current TSU students and industry partners.

Dr. Harris and Dr. Reneker noted that the program is "in alignment with several key areas, including increased degree production and workforce needs within the state." The reviewers also noted the "rich cultural and ethnic diversity in middle Tennessee as a driver of research and population health needs," as well as the "benefit of housing this degree program within an HBCU." The reviewers recommended approval "based on the need for doctoral degrees in public health and the staunch support of the identified stakeholders."

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first seven (7) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a

summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Public Health, PhD program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

<i>Estimated Costs to Deliver the Proposed Program</i>								
One-Time Expenditures								
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Faculty & Instructional Staff (Faculty Lead)								
Accreditation								
Consultants	\$3,700							
Equipment		\$3,000		\$3,000		\$3,000		\$3,000
Information Tech								
Library								
Marketing								
Facilities								
Travel		\$2,400		\$2,400		\$2,400		\$2,400
Other								
<i>Total One-Time Expenditures</i>	<i>\$3,700</i>	<i>\$5,400</i>	<i>\$0</i>	<i>\$5,400</i>	<i>\$0</i>	<i>\$5,400</i>		<i>\$5,400</i>
Recurring Expenditures								
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Faculty & Instructional Staff (Note 1)		\$108,000	\$111,240	\$114,577	\$118,014	\$121,555	\$125,202	\$128,957
Non-instructional Staff (Note 2)		\$67,500	\$69,525	\$71,070	\$73,202	\$75,971	\$78,251	\$80,599
Graduate Assistants		\$51,690	\$104,465	\$105,576	\$106,716	\$107,883	\$109,080	\$110,308
Accreditation		\$4,475	\$4,475	\$8,949	\$8,949	\$8,949	\$8,949	\$8,949
Consultants								
Equipment		\$3,000		\$3,000		\$3,000		\$3,000
Information Tech								
Library								
Marketing		\$11,000	\$9,000	\$8,000	\$7,000	\$6,000	\$5,000	\$4,000
Facilities								

Travel		\$6,000	\$6,000	\$11,400	\$12,000	\$17,400	\$18,000	\$23,400
Other		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
<i>Total Recurring Expenditures</i>	\$0	\$254,665	\$307,705	\$325,572	\$328,881	\$343,758	\$347,482	\$362,213
Grand Total (One-Time and Recurring)	\$3,700	\$260,065	\$307,705	\$330,972	\$328,881	\$349,158	\$347,482	\$367,613

Table 2: Projected Revenue

Projected Revenue								
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Tuition		\$130,140	\$222,325	\$319,032	\$420,444	\$359,123	\$392,640	\$402,464
Grants			\$200,000	\$200,000	\$500,000	\$500,000	\$500,000	\$500,000
Other*		\$700,000	\$609,753					
Total Revenues	\$0	\$830,140	\$1,032,078	\$519,032	\$920,444	\$859,123	\$892,640	\$902,464

**Geier Funds: The PhD in Public Health will be supported by funding from the Geier Lawsuit and Consent Decree (Geier, 2022). A portion of that award was designated to provide graduate degree opportunities at TSU, and more than \$700,000 remains in the fund for use to establish public health programming.*



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.D.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
Tennessee Technological University
Nuclear Engineering, Bachelor of Science (BSNE)
CIP Code: 14.2301 (Nuclear Engineering)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

Tennessee Technological University (TTU) proposes a 128-credit hour, Bachelor of Science (BSNE) in Nuclear Engineering. The proposed program was developed, in part, due to Governor Lee's commitment to the advancement of nuclear energy in Tennessee. The proposed program will teach students the principles of physics, chemistry, engineering-related mathematics, materials, mechanics, thermodynamics, and metallurgy. The program will also prepare students to contribute to the existing need for nuclear engineers trained at the baccalaureate level, and for an emerging need as Tennessee expands the nuclear development and manufacturing network.

The proposed program is designed to provide foundational knowledge to contribute to the nuclear energy industry and will focus on recruiting traditional high school students within Tennessee, alongside transfer students from regional community colleges and adult learners returning to school. Graduates will also excel in diverse career paths, using their engineering knowledge and professional skills to address complex problems and make positive impacts on society.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Nuclear Engineering, BSNE program was approved by Tennessee Technological University Board of Trustees on March 7, 2024.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed program will assist in meeting Tennessee's Drive to 55 goals by providing a new degree program in an in-demand field that provides educational opportunities for students. The program will also provide graduates access to a high paying career, which will both increase family prosperity, and contribute to the Tennessee economy. Governor Lee's 2023 State of the State Address includes extensive investment in creating a nuclear development and manufacturing ecosystem. The proposed program will prepare graduates to enter this expanding field and provide access to high-paying jobs.

The proposed Nuclear Engineering, BSNE supports TTU's mission to "create, advance, and apply knowledge to expand opportunity and economic competitiveness." The proposed program is a STEM-infused curriculum, which will strengthen faculty and student research opportunities, advance state and regional

workforce development, enhance student success, foster community engagement, and promote sustainability. The program’s learning outcomes each connect with TTU’s mission and will be regularly reviewed by the Mechanical Engineering Department’s External Advisory Board to ensure continued alignment.

CURRICULUM

The proposed program will consist of 128-credit hours of coursework and will be offered fully on-ground. The coursework will include 41-credit hours of general education requirements, 21-credit hours of math and science, and 66-credit hours of programming core and electives. Fifteen new courses will be developed for the proposed program.

Student learning outcomes follow the Accreditation Board for Engineering and Technology (ABET) guidelines, and point to several skills that graduates of the Nuclear Engineering program will possess by the time of their graduation, including:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- An ability to communicate effectively with a range of audiences.
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

PROGRAM PRODUCTIVITY

The Nuclear Engineering, BSNE program anticipates enrollment of 10 students in the first year and 47 students by year five. The proposed program anticipates graduating its first six (6) students in year four.

	2024-25	2025-6	2026-27	2027-28	2028-29
Enrollment	10	18	27	36	47
Graduates	--	--	--	6	8

PROGRAM DUPLICATION

The only other bachelor’s degree in nuclear engineering offered in Tennessee is at the University of Tennessee, Knoxville.

STUDENT DEMAND

In February and March 2023, 265 students enrolled in TTU College of Engineering programs responded to a surveyed about their interest in the proposed program. Sixty-five percent of respondents (N=74) indicated

that they were extremely or very likely to have considered majoring in nuclear engineering if it had been available when they started at TTU. Furthermore, 43 percent indicated that they would consider nuclear engineering as a major now.

OPPORTUNITIES FOR PROGRAM GRADUATES

In 2021 the Center for Energy Workforce Development projected a need for 15,000 nuclear engineering employees by 2026. Further, small modular reactors have been recently approved by the United States Nuclear Regulatory Commission, which could signal a potential shift in developing and integrating next-generation power plants in the United States which will likely increase the demand for nuclear engineers. In addition, the United States Department of Energy has invested more than \$600 million since 2014 to support small reactor concepts.

Letters of support for the Nuclear Engineering, BSNE were received from Spectra Tech Inc, Teledyne Brown Engineering, EchoWolf Solutions, Alex A. Beehler and Co., and General Atomics Electromagnetic Systems.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

The Department of Mechanical Engineering at TTU currently has 17 faculty members, four (4) of which have transferable expertise in energy, thermal science, and fluid mechanics that will be utilized in teaching the curriculum of the proposed program. The program anticipates hiring a program director before the implementation of the program and plans to hire two (2) assistant professors and one (1) lecturer. Searches for tenure track faculty members will occur in the first and second year of program implementation, and a lecturer will be hired in the first year of program implementation.

Five (5) classroom spaces in Brown Hall will serve the program, in addition to faculty offices in the same building. Additional classroom space will be provided through the engineering building, slated for occupation in August 2024. Nine (9) existing labs, located in the Lab Science building, from the Department of Mechanical Engineering will be used for various aspects of the program.

The existing Mechanical Engineering External Advisory Board will be recruited to support the proposed program. Two (2) current members have expertise and background in Nuclear Engineering, and additional members from the nuclear industry will be added shortly.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a site visit on November 8, 2023 by Dr. Farzad Rahnema, Professor of Nuclear Engineering, Nuclear and Radiological Engineering, and Medical Physics Programs at Georgia Institute of Technology. The site visit included meetings with campus administrators and faculty from TTU, as well as current TTU students and industry partners.

Dr. Rahnema recommended approval of the proposed program, noting: “[t]he need for a new nuclear engineering program in Tennessee is motivated by several factors such as the positive public perception and employment opportunities in the State, Governor Lee’s initiative for establishing a nuclear development and manufacturing ecosystem built for the future of Tennessee, the State’s robust nuclear infrastructure (e.g., Oak Ridge National Laboratory, Tennessee Valley Authority, and the many other nuclear related companies in the State), and particularly the highly positive ME [mechanical engineering] students survey results indicating their interest in the nuclear engineering major.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal.

At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUES

The proposed one-time and recurring expenditures for the Nuclear Engineering, BSNE program are listed in Table 1.

TABLE 1: ESTIMATED COSTS TO DELIVER THE PROPOSED PROGRAM

<i>Estimated Costs to Deliver the Proposed Program</i>						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Faculty Lead)						
Accreditation						\$9,700
Consultants	\$8,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Equipment*	\$3,000,000					
Information Tech						
Library						
Marketing	\$10,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Facilities						
Travel	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Other						
<i>Total One-Time Expenditures</i>	<i>\$23,000</i>	<i>\$12,000</i>	<i>\$12,000</i>	<i>\$12,000</i>	<i>\$12,000</i>	<i>\$21,700</i>
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Note 1)		\$471,900	\$629,057	\$790,929	\$814,657	\$839,096
Non-instructional Staff (Note 2)						
Graduate Assistants						
Accreditation						
Consultants						
Equipment						
Information Tech						
Library						
Marketing						
Facilities						
Travel						
Other						
<i>Total Recurring Expenditures</i>	<i>\$0</i>	<i>\$471,900</i>	<i>\$629,057</i>	<i>\$790,929</i>	<i>\$814,657</i>	<i>\$839,096</i>

Grand Total (One-Time and Recurring)	\$23,000	\$483,900	\$641,057	\$802,929	\$826,657	\$860,796
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* Department of Education Congressional Direct one-time Grant obtained for this program. This covers cost for both equipment and IT (software). This is not included in the estimated cost.



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.E.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
University of Tennessee, Knoxville
Data Science, Bachelor of Science (BSDS)
CIP Code: 30.7001 (Data Science, General)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

The University of Tennessee, Knoxville (UTK) proposes a 120-credit hour, Bachelor of Science in Data Science (BSDS). The program builds on the existing Data Science concentration in UTK's Interdisciplinary Program (IDP) housed in the College of Arts and Sciences, as well as an existing minor. The proposed program will be offered through the College of Emerging and Collaborative Studies (CECS) and will differ from the existing concentration by adding additional core courses and resources for course delivery, staffing, student advising, and internship placements.

The proposed program was developed in response to significant workforce demand for data scientists from entry level technicians to specialized research scientists and includes training in applied data science concepts and methods to address problems in a real-world context. The proposed BSDS will be offered via hybrid delivery, providing multiple options for potential students. The curriculum is flexible, enabling students to design a focus area that matches their interests and career aspirations. Internships and capstone courses aimed to prepare students for workforce or graduate school requirements are built into the curriculum, and students will complete at least six (6) credits of service research or internship courses.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Data Science, BSDS program was approved by the University of Tennessee Board of Trustees on February 29 – March 1, 2024.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Data Science, BSDS aligns with the State Master Plan for Higher Education by providing curriculum for an in-demand occupation while ensuring students graduate with an employable skillset, thereby contributing to the Drive to 55. Data science skills are highly sought-after and incredibly versatile, which will also contribute to the family prosperity and employability of graduates of the proposed program. Finally, the proposed data science program addresses the future of work imperative in the State Master Plan for Higher Education Update.

The proposed program supports the mission and goals of UTK in three (3) critical areas. First, by enhancing educational excellence – the proposed program leverages UTK's strengths, and existing course offerings to

create a new valuable program. Second, by creating value through economic, social, and technological development – the program will be cultivating internship opportunities for enrolled students. Finally, by fostering outreach where students will be taught by industry professionals, the program will be engaged in industry engagement, and the capstone will involve real-world research and outreach projects.

CURRICULUM

The proposed program will consist of 120 credit hours of coursework and will be offered in a hybrid delivery method. The coursework will include 51-58 hours of general education requirements, 27 hours of core courses, six (6) credit hours of internship or research courses, and 15 hours of upper-division electives. The program of study allows for 20 credit hours of prerequisite courses for upper-division subjects while remaining within 120 hours. Six (6) new courses will be developed for the program.

The proposed program and associated student learning outcomes (listed below) have been developed to meet the Data Science Council of America (DASCA) accreditation standards. UTK plans to achieve accreditation in academic year 2024-2025.

Upon completion of the proposed program, students will be able to:

- Develop relevant programming abilities.
- Demonstrate proficiency with statistical analysis of data.
- Develop the ability to build and assess data-based models.
- Demonstrate skill in data management.
- Apply data science concepts and methods to address problems in real-world contexts.
- Employ methods to visualize data patterns.
- Uphold and apply principles of data ethics.

PROGRAM PRODUCTIVITY

Projections for the Data Science, BSDS program estimate that 50 students will enroll in the first year, with total enrollment of 90 by year five. The program will graduate its first students in year three. Initial graduates are projected based on current students enrolled in the data science concentration as well as UTK’s first year retention rate of 90 percent.

	2024-25	2025-6	2026-27	2027-28	2028-29
Enrollment	50	60	70	80	90
Graduates	--	--	10	35	42

PROGRAM DUPLICATION

Several public and private institutions in Tennessee offer certificates, bachelor’s, and master’s degree programs in data science, including bachelor’s degrees offered at Middle Tennessee State University and Belmont University; master’s degrees offered at Middle Tennessee State University, East Tennessee State University, Tennessee State University, University of Memphis, and Vanderbilt University; and graduate certificates offered at Austin Peay State University, Middle Tennessee State University, University of Memphis, and University of Tennessee, Knoxville.

UTK currently offers a data science concentration in their Interdisciplinary, Bachelor of Arts program. During the academic year 2023-2024, the existing Data Science concentration and minor have been moved to the College of Emerging and Collaborative Studies (CECS), and when the proposed program is launched in Fall 2024, CECS will inactivate the data science concentration in the Interdisciplinary Degree Program (IDP) and offer a teach out through the 2028-2029 academic year.

STUDENT DEMAND

The current data science concentration and minor have grown exponentially in one year, from one (1) major and 12 minors in 2021-2022 to 16 majors in the Data Science concentration of the existing interdisciplinary undergraduate Bachelor of Arts (IDP program) and 76 minors in 2022-2023. In addition, UTK distributed an online survey to 3,915 undergraduates in the Tickle College of Engineering and School of Information Sciences. Of the 281 respondents, 66 percent indicated they would be interested in a data science major.

OPPORTUNITIES FOR PROGRAM GRADUATES

The Tennessee Department of Labor and Workforce Development projects that the “Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services” sector will grow by 43 percent in Tennessee by 2030. Further, data scientists earn about \$80,000 annually, with the top 10 percent earning over \$130,000 in 2021. According to the United States Bureau of Labor and Statistics (USBLS), data science has a unique ability to be conducted remotely, increasing employment opportunities in nonmetropolitan areas which includes a high percentage of the southeast region. Based on analysis conducted by Lightcast for UTK, the proposed program will support the region by graduating students with in-demand skills, where 324,600 total job postings were listed in 2022, with almost 35,000 job openings annually. The USBLS also predicts a 36 percent increase of employment by 2031 with 135,000 data scientist openings annually.

Letters of industry support indicate a willingness to provide internships, sponsor capstone projects, and hire graduates. Letters were received from multiple organizations, including the Knoxville Chamber of Commerce, Labcorp, XS Power, Lirio, CGI Federal, Nell One, Moment Energy, JTEKT, Viridi Parent, and iO Urology.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Seventeen existing faculty are anticipated to contribute to the proposed program from several colleges at UTK, which is reflective of the program’s interdisciplinary nature. The program anticipates hiring a program director (to be shared with the proposed Applied Artificial Intelligence, Bachelor of Science, which is also in the College of Emerging and Collaborative Studies (CECS)), several full-time lecturers, faculty leads, and undergraduate graders. The proposed program will also utilize two (2) existing UTK faculty as CECS faculty fellows each year. These faculty fellows will contribute to curriculum development, teaching, and program service. In addition, the program will have a coordinator, internship coordinator, a full-time director of advising, and a director of partnerships and economic engagement, all of which will be shared across several CECS programs.

Existing space in the Claxton Education Building will be used for the proposed program, and renovations are underway to create faculty office space, as well as laboratory space. Renovations are expected to be completed by the end of the Spring 2024 semester.

The proposed program will offer specialized supports for students, including tailored academic advising, technical workshops and seminars, internship and research opportunities, and peer support and study groups. Other campus-based resources include the Artificial Intelligence Tennessee Initiative, the Writing Center, the Stat Lab, The Math Place, and a number of supports in place for all UTK undergraduates.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a site visit on November 27, 2023 by Dr. Manuel D. Rossetti, University Professor and Director of the Data Science Program at the University of Arkansas. The site visit included meetings with campus administrators and faculty from UTK, as well as current UTK students and industry partners.

Dr. Rossetti recommended approval of the proposed Bachelor of Science in Data Science, noting, “employers have shown strong signals that indicate the need for graduates with the skill sets of data scientists.” Further, Dr. Rossetti found the proposed program’s employment benchmarking “credible and thorough,” adding that the “level of national demand is more than sufficient to ensure employment in the field of data science.” Finally, Dr. Rossetti was complimentary of the university’s commitment to the proposed program, noting “[t]he administration was supportive of the program, and the proposal itself provides evidence that [it] fits within the mission of UT and CECS, in particular.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Data Science, BSDS program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

Estimated Costs to Deliver the Proposed Program						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Faculty Lead)	\$10,000					
Accreditation					\$21,900	
Consultants		\$2,000				
Equipment						
Information Tech			\$2,000			
Library						
Marketing						
Facilities	\$62,006					
Travel						
Other						
<i>Total One-Time Expenditures</i>	<i>\$72,006</i>	<i>\$2000</i>	<i>\$2,000</i>	<i>\$0</i>	<i>\$21,900</i>	<i>\$0</i>
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff*	\$105,600	\$165,200	\$188,168	\$230,831	\$278,742	\$282,204
Non-instructional Staff**		\$51,600	\$68,524	\$121,476	\$145,648	\$160,273
Graduate Assistants						
Accreditation						

Consultants						
Equipment		\$500	\$500	\$500	\$500	\$500
Information Tech		\$500	\$500	\$500	\$500	\$500
Library						
Marketing		\$2,000	\$2,000	\$2,000	\$1,000	\$1,000
Facilities						
Travel						
Other						
<i>Total Recurring Expenditures</i>	\$105,600	\$219,800	\$259,692	\$355,307	\$426,390	\$444,477
Grand Total (One-Time and Recurring)	\$177,606	\$221,800	\$261,692	\$355,307	\$448,290	\$444,477

* This includes the Program Director, Faculty Fellows (Years 1 and 2), and lecturers.

** This includes student graders, lab assistants, program coordinator, and internship coordinator (beginning in Year 3).

Table 2: Projected Revenue

Projected Revenue						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$158,940	\$333,774	\$654,833	\$948,872	\$1,091,918
Grants						
Other						
Total Revenue	\$0	\$158,940	\$333,774	\$654,833	\$948,872	\$1,091,918



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.F.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
University of Tennessee, Knoxville
Applied Artificial Intelligence, Bachelor of Science (BSAAI)
CIP Code: 11.0102 (Artificial Intelligence)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

The University of Tennessee, Knoxville (UTK) proposes a 120-credit hour, Bachelor of Science (BSAAI) in Applied Artificial Intelligence. The proposed program is designed to provide training in foundational artificial intelligence (AI) concepts, data sources, and tools across multiple disciplines. Additionally, the program will prepare students for careers in emerging AI-related positions across a multitude of industries. Graduates of the proposed program will have a blend of technical prowess and interdisciplinary acumen and will be well-equipped to influence the emerging workplace applications of AI.

The proposed Applied Artificial Intelligence, BSAAI will leverage UTK's existing and new industry relationships to provide students with hands-on experience in the field. The proposed program will be delivered in a hybrid format, and the campus plans to expand to a fully online option in the future to provide flexibility for students. All students will complete six (6) to 12 hours in research, service, or internships to strengthen employability. The Applied Artificial Intelligence program is designed to accommodate transfer students from Tennessee community colleges and will offer a flexible curriculum, allowing students to pursue in-depth training in areas of interest.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Applied Artificial Intelligence, BSAAI program was approved by the University of Tennessee Board of Trustees on February 29 – March 1, 2024.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Applied Artificial Intelligence, Bachelor of Science aligns with the State Master Plan for Higher Education by responding to a growth in AI-related jobs and the need to “interact with artificial intelligence using critical thinking, data analysis, and diverse communication skills.” The program aligns with a strategic mission from the State Master Plan to develop graduates who are technically skilled, ethically aware, and socially responsible by providing interdisciplinary instruction, emphasizing technical skills, and broader competencies and offering a foundational understanding of AI.

The program also aligns with UTK's mission by providing forward-looking and innovative academic offerings, reflecting the institution's commitment to stay at the forefront of technology and innovation. The Applied

Artificial Intelligence program is structured around hands-on and real-world experiences, which further UTK's strategic partnerships and innovative research. Finally, given the high demand for AI professionals, many graduates of the proposed program will remain in Tennessee following graduation, fulfilling UTK's mission to give back to the state through its alumni.

CURRICULUM

The proposed program will consist of 120 credit hours of coursework and will be offered with both on-ground and online course options, with the intention of developing a fully online option in the future. The coursework will include 50-60 credit hours of general education requirements; 27 credit hours of core courses specifically tailored to the Applied Artificial Intelligence, BSAAI program, including two (2) capstone courses; and at least 15 credit hours of upper-division elective courses, allowing them to delve into the application of artificial intelligence technologies in their chosen field of interest. Following implementation, the program intends to add specific AI application tracks, such as data analytics, healthcare, finance, or robotics, to provide additional structure in the elective area. The program dedicates approximately 21 credit hours to allow students to take prerequisite courses for upper-division subjects while remaining within 120 hours. A total of 10 new courses will be developed for the program.

The proposed program and associated student learning outcomes (listed below) have been developed to meet the Data Science Council of America (DASCA) accreditation standards. Once the proposed program is approved and accredited by DASCA, UTK will initiate accreditation with the Artificial Intelligence Board of America (ARTIBA).

At the completion of the program, graduates will be able to:

- Demonstrate a comprehensive understanding of the core principles, algorithms, and models underpinning artificial intelligence.
- Be adept at applying AI techniques to solve real-world problems across diverse industries and disciplines.
- Possess the capability to evaluate the ethical, social, and legal implications of AI applications, ensuring responsible implementation.
- Exhibit proficiency in interdisciplinary collaboration, integrating AI knowledge with insights from fields such as business, social sciences, design, and more.
- Exhibit robust problem-solving skills, employing AI solutions creatively and effectively to address complex challenges.
- Showcase an ability to adapt to emerging AI trends, emphasizing the importance of lifelong learning in this rapidly evolving field.
- Acquire experience in AI research and development, cultivating a mindset of innovation and exploration.
- Be effective communicators, articulating complex AI concepts to both technical and nontechnical audiences.
- Through internships and practical projects, gain real-world experience that ensures job readiness upon graduation.

PROGRAM PRODUCTIVITY

Projections for the Applied Artificial Intelligence, BSAAI program estimate that 15 students will enroll in the first year, with total enrollment of 50 by year five. The program will graduate its first students in year four.

	2024-25	2025-26	2026-27	2027-28	2028-29
Enrollment	15	25	35	40	50
Graduates	--	--	--	10	17

PROGRAM DUPLICATION

No public institutions in Tennessee offer a freestanding undergraduate program in Applied Artificial Intelligence. However, The University of Tennessee, Knoxville, Tennessee Technological University, and the University of Memphis offer undergraduate degrees and/or graduate certificates in Computer Science or Data Science with a concentration in AI. Several public and private institutions offer courses in Artificial Intelligence and Machine Learning, including East Tennessee State University, Middle Tennessee State University, Tennessee State University, Belmont University, Christian Brothers University, Rhodes College, and Vanderbilt University.

STUDENT DEMAND

In July 2023, UTK distributed an online survey to 3,716 undergraduates in the Tickle College of Engineering. Of the 536 respondents, approximately 34 percent (178) indicated that they would have been extremely interested in the proposed program, had it been available when they selected their major. Additionally, 41 percent of the respondents (213) expressed considerable interest in pursuing a human-robot interaction concentration or major, while 26 percent (132) indicated that they would have selected a concentration or major in AI for cybersecurity.

OPPORTUNITIES FOR PROGRAM GRADUATES

Current and projected demand for employees with skills in AI are strong in the region and beyond. Lightcast analysis of job postings from July 2022 to June 2023 in the Southeast region returned more than 200,000 ads seeking employees with AI skills, and 106,382 ad postings were for AI positions. A study commissioned by UT's Office of Research, Innovation, and Economic Development, and executed by Boston Consulting Group found there was a 40 percent compound annual growth rate in AI-related job postings since 2019. Jobs identified in the UT study include manufacturing and materials, transportation and logistics, health, information technology, agriculture and farming, energy, and hospitality and entertainment. Furthermore, an analysis by Lightcast projects the regional (Tennessee and neighboring states) trends for target occupations from the proposed degree to increase by 16 percent in the region from 2022-2027. This equates to an increase of approximately 55,000 jobs.

Letters of industry support indicate a willingness to provide internships, sponsor capstone projects, and hire graduates. Letters were received from multiple organizations including CGI Federal, Eonix Energy, Reelay Meetings, Inc., RobotLAB, NellOne Therapeutics, Inc., Philips Research, Atmosera, and Advai, Ltd. The proposed program will strengthen existing ties with industry partners like Oak Ridge National Laboratory, as well.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Eighteen existing faculty are anticipated to contribute to the proposed program. These faculty are at various ranks and come from various colleges at UTK, which is reflective of the program's interdisciplinary nature. The program anticipates hiring a program director (to be shared with the proposed Data Science, Bachelor of Science, which is also in the College of Emerging and Collaborative Studies (CECS)), several full-time lecturers, and undergraduate graders. The proposed program will also utilize two (2) existing UTK faculty as CECS faculty fellows each year. These faculty fellows will contribute to curriculum development, teaching, and program service. In addition, the program will have a coordinator, internship coordinator, a full-time

director of advising, and a Director of Partnerships and Economic Engagement, all of which will be shared across several CECS programs.

Existing space in the Claxton Education Building will be used for the proposed program, and renovations are underway to create faculty office space as well as an Applied AI Living and Learning Lab, which will allow students and instructors to test innovative ideas for teaching and learning in an immersive fashion. Renovations are expected to be complete by the end of the Spring 2024 semester.

The proposed program will offer specialized supports for students, including a program director, tailored academic advising, technical workshops and seminars, internship and research opportunities, and peer support and study groups. Other campus-based resources include the AI Tennessee Initiative, the Writing Center, the Stat Lab, The Math Place, and a number of supports in place for all UTK undergraduates.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a virtual site visit on November 20, 2023 by Dr. Kenneth R. Fleischmann, Professor and Director of Undergraduate Studies in the School of Information at the University of Texas at Austin. The site visit included meetings with campus administrators and faculty from UTK, as well as current UTK students and industry partners.

Dr. Fleischmann “wholeheartedly” recommended approval of the proposed program, noting that it is “extremely exciting and timely,” and that he is “confident that this program will be successful and that it will be effective in serving the state of Tennessee and the world.” Dr. Fleischmann added that graduates of the program “will be highly in demand and very employable”, and that the interdisciplinarity of the program “will help to equip graduates [with the skills] to sustain long and successful careers.” Finally, Dr. Fleischmann was complimentary of the university’s commitment to the proposed program, noting “[t]he strengths of the program are a testament to the extremely strong and innovative leadership at all levels.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Applied Artificial Intelligence, BSAAI program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

Estimated Costs to Deliver the Proposed Program						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Faculty Lead)	\$10,000					
Accreditation					\$21,900	\$15,900
Consultants	\$2,000					
Equipment						
Information Tech						
Library						
Marketing						
Facilities	\$62,006					
Travel						
Other						
Total One-Time Expenditures	\$74,006	\$0	\$0	\$0	\$21,900	\$15,900
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff*	\$105,600	\$218,264	\$286,772	\$359,135	\$313,788	\$346,950
Non-instructional Staff**		\$45,200	\$52,524	\$92,676	\$107,248	\$121,873
Graduate Assistants						
Accreditation					\$715	\$715
Consultants						
Equipment		\$500	\$500	\$500	\$500	\$500
Information Tech		\$500	\$500	\$500	\$500	\$500
Library						
Marketing		\$2,000	\$2,000	\$2,000	\$1,000	\$1,000
Facilities						
Travel						
Other						
Total Recurring Expenditures	\$105,600	\$266,464	\$342,296	\$454,811	\$423,751	\$471,538
Grand Total (One-Time and Recurring)	\$179,606	\$266,464	\$342,296	\$454,811	\$445,651	\$487,438

* This includes the Program Director, Faculty Fellows (beginning in Year 2), and lecturers.

** This includes the student graders, lab assistants, program coordinator, and internship coordinator (beginning in Year 3).

Table 2: Projected Revenue

Projected Revenue						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$47,682	\$120,794	\$295,628	\$451,390	\$597,614
Grants						
Other						
Total Revenues	\$0	\$47,682	\$120,794	\$295,628	\$451,390	\$597,614



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.G.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
University of Tennessee, Knoxville
Innovative Transdisciplinary Studies, Bachelor of Science (BSITS)
CIP Code: 30.0601 (Systems Science and Theory)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

The University of Tennessee, Knoxville (UTK) proposes a 120-credit hour, Bachelor of Science (BSITS) in Innovative Transdisciplinary Studies. The proposed program is designed to be a customizable degree to prepare students for future employment opportunities and emerging workforce demands that require interdisciplinarity. The program curriculum is designed to cater to student interests across disciplines and incorporates several 12-credit, stackable certificates including cybersecurity, applied artificial intelligence, and data science.

The proposed program will have a hybrid delivery method and will include hands-on experience for all students via 6-12 credit hours in research, service, and internships. These courses are designed to strengthen skills and employability and will be taught in partnership between faculty in the College of Emerging and Collaborative Studies (CECS) and the UTK Center for Career Development. The proposed program is designed to accommodate transfer students interested in pursuing a four-year degree in an emerging field, students interested in a specific interdisciplinary career path, and students who are uncertain about their ideal career and want to explore options. Further, the customizable curriculum allows for timely adaptation to workforce demands and students' interests.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Innovative Transdisciplinary Studies, BSITS program was approved by the University of Tennessee Board of Trustees on February 29 – March 1, 2024.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Innovative Transdisciplinary Studies, BSITS aligns with the Drive to 55 and THEC's State Master Plan for Higher Education by enabling students from diverse backgrounds to customize their own bachelor's degree, and specifically furthers this goal by providing a pathway to a bachelor's degree for Tennessee Transfer Pathway (TTP) students.

The proposed program aligns with UTK's mission, which states: "we are a diverse community with a shared commitment to discovery, creativity, learning, and engagement. At UT Knoxville, we: empower learners of all ages and backgrounds to achieve their dreams through accessible and affordable

education and state-of-the-art research training opportunities. Advance the prosperity, well-being, and vitality of communities across Tennessee and around the world through our research, teaching, service, and engagement. Commit to excellence, equity, and inclusion within the university, across the state, and in all our global activities.” More specifically, the proposed program will allow students to “advance the prosperity, well-being, and vitality of communities across Tennessee” through internship placements, research courses, and capstone projects that affect their communities. Finally, the program also aligns with UTK’s mission to “empower learners of all ages and backgrounds” by offering an innovative and customizable curriculum designed to capture a significant portion of TTP students annually. CECS is actively engaged in discussions with community colleges, such as Roane State Community College, to work out TTP arrangements.

CURRICULUM

The proposed program will consist of 120 credit hours of coursework and will be offered with both on-ground and online course options. The coursework will include 50-58 credit hours of general education requirements; 27 credit hours of core courses; 6-12 credit hours in research, service, and internships; and 21-37 credit hours earned in stackable 12-credit-hour certificates and minors. An internship will be required for all students, and all internships will be developed in partnership with industry.

CECS plans to launch ten certificates in fall 2024, with offerings in cybersecurity, data science, applied artificial intelligence, human-computer interaction, emerging design studies, user experience and game design, law tech, connected world, one health, and sustainability. Each certificate will include a Gateway 101 course, plus three (3) additional three-credit hour disciplinary courses. The gateway courses will introduce key concepts to students to ensure success in more advanced coursework. Fourteen new courses will be developed, including nine (9) core courses and five (5) courses for the applied artificial intelligence certificate. These certificates will be built into the curriculum of the proposed program and will allow students to build skill sets in their areas of interest across disciplinary bounds.

At the completion of the Innovative Transdisciplinary Studies, BSITS program, students will be able to:

- Demonstrate a deep understanding of concepts, theories, and methods from multiple disciplines relevant to the chosen transdisciplinary field of study.
- Identify connections, patterns, and interdependencies between different disciplines and integrate this knowledge to address complex problems.
- Apply systems thinking principles to comprehend the complexity and interconnectedness of social, environmental, and technological systems.
- Consider the societal and environmental implications of transdisciplinary solutions and propose responsible courses of action.
- Plan and conduct transdisciplinary research projects, employing appropriate methodologies from different disciplines.
- Synthesize and interpret data from diverse sources to support evidence-based conclusions.
- Design and execute a comprehensive transdisciplinary project that integrates insights from different disciplines to address a complex issue.
- Collaborate effectively with individuals from different disciplines to collectively address transdisciplinary problems.
- Communicate ideas and findings clearly and coherently to diverse audiences, including those without specialized knowledge in particular disciplines.

PROGRAM PRODUCTIVITY

Projections for the Innovative Transdisciplinary Studies, BSITS program estimate ten (10) students will enroll in the first year, with total enrollment of 40 by year five. The program will graduate its first students in year four.

	2024-25	2025-6	2026-27	2027-28	2028-29
Enrollment	10	15	20	30	40
Graduates	--	0	0	7	11

PROGRAM DUPLICATION

No other programs are offered at Tennessee institutions with the innovative transdisciplinary focus of the proposed program.

Comparable programs are offered with an interdisciplinary approach at the following public institutions: East Tennessee State University, Interdisciplinary Studies (BS and BAS); Middle Tennessee State University, Integrated Studies (BS); Tennessee State University, Arts and Sciences (BS); Tennessee Technological University, Interdisciplinary Studies (BS); University of Tennessee, Martin, Interdisciplinary Studies (BS); University of Memphis, Bachelor of Liberal Studies and Bachelor of Professional Studies.

The proposed program is distinctive from the existing Bachelor of Arts in Interdisciplinary Studies at UTK because of the transdisciplinary focus as opposed to traditional discipline-specific courses, the stackable credentials, internships, and industry partnerships. The existing interdisciplinary programs do not have a coherent theme but are a selection of courses that can count towards degree completion. In contrast, the ITS program will utilize faculty expertise to develop courses collaboratively in in-demand and emerging areas of study.

STUDENT DEMAND

A survey of current undergraduate students in the Tickle College of Engineering and the College of Information Sciences was conducted in 2023 and resulted in 281 responses. 34 percent (N=96) indicated that they would have been interested in a major with opportunities for multidisciplinary education had it been available. Respondents indicated the most interest in Artificial Intelligence (N=99) and Game Design (N=97) as potential areas for study but selected Artificial Intelligence (N=73) and Data Science (N=62) as the certificates they would be most likely to choose.

OPPORTUNITIES FOR PROGRAM GRADUATES

Lightcast, a labor market analytics firm, conducted a study of local and regional demand. Many of the target occupations for graduates, including software developers, computer systems analysts, computer and information systems managers, network and computer systems administrators and engineers are projected to increase by 14 percent from 2022-2027. Because of the transdisciplinary nature of the program, UTK also conducted opportunity analysis in several areas, including the foci of certificates developed for the proposed program. For example, Artificial Intelligence, Game Design, and Human/User-Centered Design are all anticipated to experience double-digit growth in coming years. From July 2022 to June 2023, there were 307,329 unique job postings in fields related to the proposed program, such as software engineers, systems engineers, java developers, software developers, DevOps engineers, system administrators, IT project managers, and scrum masters.

No programs in the entire Southeast region graduate students in the category of the proposed program, making UTK well poised to provide a unique, adaptable degree program to serve the needs of industry.

Future certificate development will occur in partnership with industry as well, meaning that the proposed program will continue to offer skills that are valued and sought out in industry.

Letters of industry support were received from multiple organizations including Moment Energy, JPMorgan Chase, Viridi Parente, IonQ, iO Urology, and Carbon Rivers. Additional letters of support from higher education institutions and systems in Tennessee include the Tennessee Board of Regents, Roane State Community College as well as the Tickle College of Engineering and Herbert College of Agriculture at the University of Tennessee, Knoxville.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Nineteen existing faculty are anticipated to contribute to the proposed program. These faculty are at various ranks and come from a number of colleges and departments at UTK, which is reflective of the interdisciplinary nature of the program. A program director has been hired and began in July 2023. Faculty Fellows (from existing UTK faculty) will be strategically recruited from across campus to co-develop and co-teach the collaborative core courses starting in August 2026. Industry partners may also play a role in teaching. One (1) full-time lecturer has already been hired to support the program, and an additional five (5) will be hired to start in August 2024. Additionally, the program will have a coordinator, director of marketing and communications, director of advising, director of business operations, and director of partnerships, all housed in CECS. An internship coordinator will begin in year three and will split their time between the three (3) proposed CECS programs.

Existing space in the Claxton Education Building will be used for the proposed program. The building is well suited for interdisciplinary instruction and experiential and group learning, and includes lounge space, multi-purpose seminar rooms, as well as an Applied Living and Learning Lab. Drop-in advising and specialized support for internships will be available for students of the proposed program. Claxton is currently being renovated to provide offices for support staff of the proposed program, in addition to renovations underway for the other two (2) proposed CECS programs. Other campus-based resources include the AI Tennessee Initiative, the Writing Center, the Stat Lab, the Math Place, and a number of supports in place for all UTK undergraduates.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a site visit on December 5, 2023, by Dr. Bruce Kingma, Professor of Entrepreneurship and Director of Undergraduate Programs in the School of Information Systems at Syracuse University. The site visit included meetings with campus administrators and faculty from UTK, as well as current UTK students and industry partners.

Dr. Kingma recommended approval of the proposed program, noting that it is a “great idea to start a college that is nimble and can create new courses, certificates, and programs in response to trends in market demand for graduates.” He added that the curriculum is “sufficiently extensive and sophisticated,” and that the “certificate areas of study are in high demand by employers.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Innovative Transdisciplinary Studies, BSITS program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

<i>Estimated Costs to Deliver the Proposed Program</i>						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff (Faculty Lead)						
Accreditation						
Consultants	\$2,000					
Equipment						
Information Tech						
Library						
Marketing						
Facilities	\$62,006					
Travel						
Other						
<i>Total One-Time Expenditures</i>	<i>\$64,006</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff*	\$105,600	\$165,200	\$188,168	\$215,981	\$278,742	\$282,204
Non-instructional Staff**		\$39,866	\$44,166	\$61,699	\$72,466	\$83,268
Graduate Assistants						
Accreditation						
Consultants						
Equipment						
Information Tech						
Library						
Marketing		\$2,000	\$2,000	\$2,000	\$1,000	\$1,000
Facilities						
Travel						
Other						
<i>Total Recurring Expenditures</i>	<i>\$105,600</i>	<i>\$207,066</i>	<i>\$234,334</i>	<i>\$279,680</i>	<i>\$352,208</i>	<i>\$366,472</i>
Grand Total (One-Time and Recurring)	\$169,606	\$207,066	\$234,334	\$279,680	\$352,208	\$366,472

* This includes the Program Director (all years), Faculty Fellows (years 1 and 2), and lecturers (years 1-5).

** This includes student graders, program coordinator, and internship coordinator (beginning in Year 3).

Table 2: Projected Revenue

Projected Revenue						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$27,252	\$65,405	\$122,634	\$218,016	\$314,761
Grants						
Other						
Total Revenues	\$0	\$27,252	\$65,405	\$122,634	\$218,016	\$314,761



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: II.H.

MEETING DATE: May 16, 2024

SUBJECT: New Academic Program
University of Tennessee, Knoxville
Environmental Engineering, Bachelor of Science (BS)
CIP Code: 14.1401 (Environmental/Environmental Health Engineering)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

The University of Tennessee, Knoxville (UTK) proposes a 128-credit hour, Bachelor of Science (BS) in Environmental Engineering. The proposed program will augment and build on the strengths of existing bachelor, master, and doctoral programs offered in the Department of Civil and Environmental Engineering at UTK. The proposed program is designed to prepare graduates to pass the Environmental Engineering Fundamentals of Engineering Exam administered by the National Council of Examiners for Engineering and Surveying and prepare them for work in various Environmental Engineering roles.

The proposed Environmental Engineering, BS responds to the increasingly complex environmental issues faced by our society over the last 50 years, providing graduates with the skills needed to create sustainable food, water, and energy; curb climate change and adapt to its impacts; design a future without pollution or waste; create efficient, healthy, resilient cities; and to foster informed decisions and actions. All students will complete a two-semester capstone design project that progresses from project scoping, community outreach, professional communication, and reflection toward detailed engineering design. The program also has the potential to address specific regional needs and institutional strengths, including atmospheric science, watershed and river management, hydropower, and nuclear decommissioning and waste management.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Environmental Engineering, BS program was approved by the University of Tennessee Board of Trustees Executive Committee on January 20, 2023.

PROPOSED IMPLEMENTATION DATE

August 1, 2024

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed Environmental Engineering, BS aligns with the State Master Plan for Higher Education by increasing "enrollment in majors leading to high-demand jobs" by providing training that addresses workforce shortages in both civil engineering and construction, and environmental scientists and specialists, indicated in the THEC supply and demand report. The program will also contribute to the Drive to 55 goals, by offering a STEM oriented degree that is appealing to students, particularly to students from underrepresented groups within the engineering field, such as women and minorities, who are often

unlikely to enroll in a traditional Civil Engineering program but make up about 50 percent of the student body in Environmental Engineering programs at comparable institutions.

The proposed program will also align with key aims of UTK’s strategic plan. Specifically, it enhances educational excellence by offering a new, high-demand program that will increase enrollment and degrees awarded. Further, it will expand research capacities through supporting new faculty expertise. Finally, it will foster outreach and engagement by addressing grand challenges in Tennessee through teaching, research, and outreach.

CURRICULUM

The proposed program will consist of 128 hours of coursework and will be offered with both on-ground and online course options. The coursework will include 41-credit hours of fundamental courses, 30-credit hours of core courses, four (4) credit hours of lab requirements, 25-credit hours of supporting courses, and four (4) credit hours for Senior Design 1 and 2. The remaining 24-credit hours are technical electives and additional courses to satisfy UTK’s general education requirements. A total of six (6) new courses will be developed for the implementation of the proposed program.

The proposed program and associated student learning outcomes has been developed to meet the Accreditation Board for Engineering and Technology (ABET) accreditation standards. At the completion of the program, graduates will have:

- An ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics;
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
- An ability to communicate effectively with a range of audiences.
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions, and,
- An ability to acquire an apply new knowledge as needed, using appropriate learning strategies.

PROGRAM PRODUCTIVITY

Projections for the Environmental Engineering, BS program estimate that 50 students will enroll in the first year, with total enrollment of 115 by year five. The program will graduate its first students in year three.

	2024-25	2025-26	2026-27	2027-28	2028-29
Enrollment	50	75	100	111	115
Graduates	--	--	14	21	23

PROGRAM DUPLICATION

No public institutions in Tennessee offer a freestanding undergraduate program in environmental engineering. Tennessee Technological University and the University of Memphis offer environmental engineering concentrations in their existing Civil Engineering, BS programs. The University of Tennessee,

Chattanooga offers an environmental concentration in both their Civil Engineering, BS and Chemical Engineering, BS.

STUDENT DEMAND

Thirty UTK students who had selected water resources or environmental engineering as their specialty-area electives were surveyed to determine their interest in the proposed program as compared to the existing Civil Engineering, BS. More than half of these students indicated that they were extremely interested or very interested in the proposed program. In addition, 492 first-and-second-year students enrolled in engineering fundamentals courses were surveyed to gauge their interest in the proposed program and 45 indicated that they were extremely or very interested in the proposed program. Finally, between 2017 and 2019, 165 civil engineering students selected either environmental engineering or water resources as their specialty area.

OPPORTUNITIES FOR PROGRAM GRADUATES

There is a strong national demand for environmental engineers. The United States Bureau of Labor Statistics (BLS) indicates that 52,300 environmental engineering jobs were posted in 2020, representing an increase of 1,900 between 2010 and 2020. BLS estimates a 4 percent increase in environmental engineering jobs over the next decade. To assess regional demand, UTK distributed a survey to 15 employers. Eleven employers responded to the survey, and the results indicated that there is a regular and steady demand for environmental engineers, and that undergraduate training in environmental engineering would help fill this demand.

Letters of industry support were received from United Cleanup Oak Ridge, LLC; Gresham Smith; S&ME, Inc.; First Utility District of Knox County; Amentum National Security; HDR Engineering, Inc.; Tennessee Department of Environment and Conservation; and the Tennessee Valley Authority. Several of these letters express a willingness to sponsor student interns, assist with capstone projects, and to hire program graduates.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

Several existing faculty members will support the proposed program, including two (2) governor's chairs, the department head, six (6) tenure-line faculty, and a PhD student who teaches two (2) labs. Searches are approved for a full-time lecturer and for the Goodrich Chair of Excellence. One (1) faculty member has already been hired to teach in the proposed program. Existing campus infrastructure includes environmental engineering research labs and equipment, a fully equipped environmental teaching lab, a designated water resources teaching lab, two (2) full-time staff technicians, and the Water Quality Core Facility. Additionally, the proposed program will be supported by several campus research centers, including the Tennessee Water Resources Research Center, the Institute for a Secure and Sustainable Environment, the Center for Environmental Biotechnology, the Baker Center for Public Policy, and the Bredesen Center for Interdisciplinary Research and Graduate Education.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a site visit on September 25, 2023, by Dr. Shannon Bartelt-Hunt, Professor and Chair of the Department of Civil and Environmental Engineering, University of Nebraska-Lincoln. The site visit included meetings with campus administrators and faculty from UTK, as well as current UTK students and industry partners. Dr. Bartelt-Hunt enthusiastically recommended approval of the proposed program, noting that "the proposed degree requirements will provide all the necessary training for students to meet the stated program goals and objectives and to gain successful employment in the environmental engineering workforce." Further, she stated "discussions with the community partners indicated a very strong need for more environmental engineers across the public and private sector workforce." Dr. Bartelt-Hunt also observed that "the department has the resources and

faculty capacity and expertise to support development of this new program and it will make a positive impact on the university and state.”

ASSESSMENT AND POST-APPROVAL MONITORING

An annual performance review of the proposed program will be conducted for the first five (5) years following program approval. The review will be based on benchmarks established in the approved proposal. At the end of this period, the campus, institutional governing board, and THEC staff will perform a summative evaluation. If benchmarks are not met during the monitoring period, the Commission may recommend that the institutional governing board terminate the program.

PROGRAM COSTS AND REVENUE

The proposed one-time and recurring expenditures for the Environmental Engineering, BS program are listed in Table 1. Projected revenue is displayed in Table 2.

Table 1: Estimated Costs to Deliver the Proposed Program

<i>Estimated Costs to Deliver the Proposed Program</i>						
One-Time Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Accreditation				\$6,700		
Consultants	\$2,500					
Equipment		\$103,935	\$78,740			
Information Tech						
Library						
Marketing		\$8,000				
Facilities						
Travel	\$2,000					
Other						
Total One-Time Expenditures	\$4,500	\$111,935	\$78,740	\$6,700	\$0	\$0
Recurring Expenditures						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Faculty & Instructional Staff		\$136,990	\$141,100	\$145,333	\$149,693	\$154,183
Non-instructional Staff		\$31,920	\$32,878	\$33,864	\$34,880	\$35,926
Graduate Assistants		\$44,686	\$87,979	\$46,229	\$90,720	\$92,171
Accreditation					\$715	\$715
Consultants						
Equipment						
Information Tech						
Library						
Marketing						
Facilities						
Travel						
Other						
Total Recurring Expenditures	\$0	\$213,596	\$261,956	\$225,426	\$276,008	\$282,995

Grand Total (One-Time and Recurring)	\$4,500	\$325,531	\$340,696	\$232,126	\$276,008	\$282,995
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Table 2: Projected Revenue

<i>Projected Revenue</i>						
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5
Tuition		\$913,357	\$1,394,363	\$1,844,895	\$2,070,289	\$2,175,933
Grants			\$22,343	\$22,450	\$43,565	\$43,991
Other						
Total Revenues	\$0	\$913,357	\$1,416,706	\$1,867,345	\$2,113,854	\$ 2,219,924



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: V.

MEETING DATE: May 16, 2024

SUBJECT: Legislative Update

ITEM TYPE: Information

ACTION RECOMMENDATION: N/A

PRESENTATION

Mr. Lou Hanemann, Chief of Staff, will present the Commission with an update on key legislation passed during the 2024 Session of the 113th General Assembly pertinent to THEC and the higher education landscape.