

BOARD OF TRUSTEES MEETING

April 30, 2025 Derryberry Hall, Room 210 9:30 a.m. CDT

AGENDA

- I. Call to Order
- II. New Academic Program Proposal (NAPP) for BS in Interdisciplinary Computing
- III. Maintenance and Mandatory Fees
- IV. Other Business
- V. Adjournment



Agenda Item Summary

Date: April 30, 2025

Agenda Item: New Academic Program Proposal (NAPP) for BS in Interdisciplinary Computing

Review	Action	No action required

PRESENTERS: Associate Provost Sharon Huo

PURPOSE & KEY POINTS: The new degree for which approval is sought is a Bachelor of Science in Interdisciplinary Computing. The College of Interdisciplinary Studies and College of Engineering faculty lead this proposal.

The proposed Interdisciplinary Computing program addresses the ever-growing need to create a workforce that can apply computing solutions across disciplines. At its core is a collaborative effort across the university guided by the College of Interdisciplinary Studies and the College of Engineering. The degree will be housed in the College of Interdisciplinary Studies. This program aims to attract a diverse range of students, including traditional students seeking to integrate computing knowledge within a cognate discipline (a secondary discipline such as agri-business, biology, journalism, etc), adult learners in the workforce, military veterans, and transfer students from community colleges and Tennessee Colleges of Applied Technology.

The new Interdisciplinary Computing program requires 120 credits for completion, divided into four primary focus areas: General Education Core, Computing Core, Intersectional Core, and Cognate Area. The program will be delivered through a combination of hybrid and face-to-face courses, emphasizing experiential, learner-centered instruction.

The proposed implementation date is fall 2025. Enrollment is projected to start with 10 students in the first year and grow to approximately 40 by year five.

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The estimated costs to deliver the proposed program include both one-time and recurring costs. One-time costs are estimated at \$8,500 to equip existing student labs with additional software during the initial year. Recurring expenses begin at \$241,350 in the first year and increase to \$274,118 by year five. The reoccurring expenditures include the hiring of a new Program Coordinator/Lecturer during the first year along with the costs for development and delivery of new coursework. Projected revenue grows from \$113,760 in Year One to \$512,151 by Year Five, driven by enrollment increases, more than offsetting program expenses.

New Academic Program Proposal (NAPP) for the

Bachelor of Science in Interdisciplinary Computing

Submitted by Tennessee Technological University

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Letter of Notification (LON)

Section 1: Overview

Program Information

Institution Name: Tennessee Technological University Proposed academic program and concentration(s): BS in Interdisciplinary Computing (BSIC) Degree name: Interdisciplinary Computing (IC) Degree designation: Bachelor of Science Proposed CIP code: *11.0104* CIP code definition: *Informatics* Corresponding SOC codes and SOC definitions applicable for graduates of the program:

CIP		SOC	
CODE	CIP Title	CODES	SOC Titles
		15-1221	Computer and Information Research Scientists
11.0104		15-1252	Software Developers
	11.0104	informatics	15-1253
		15-1255	Web and Digital Interface Designers

Academic Program Liaison names and contact information

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Proposed Implementation Date: Fall 2025

Estimated Timeline:

- LON submission June 28, 2024
- NAPP submission October 2024
- External review- November 2024
- Institutional governing board approval April 2025
- THEC Action May 2025
- Enroll students for Fall semester August 2025

Section II: Background

Purpose and nature of the academic program

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The Interdisciplinary Computing (IC) program is being proposed to address the ever-growing need to create a workforce that can apply computing solutions across disciplines. Computing has had a great impact on the way that government, education, entertainment, commerce, and industry operate, innovate, and create - indeed, the greatest impact over the past 50 years has been through the increased application of computing solutions to every one of these sectors. This has created a demand for computer science graduates, and while there has been some movement towards informal or ancillary "coding camp"-based training programs, such efforts result in creation of a trade mentality. We recognize, however, that computer science programs may swing to the other end of the spectrum, where gaining expertise in computing eschews other knowledge necessary to apply computing in either established or emerging industries. We are proposing, instead, to create a computing program that lives in the "intersection" between disciplines to allow the 21st century learner (i.e., digital and information age natives) to combine interests and skills in cognate areas with the knowledge of computing, artificial intelligence, and data sciences in order to lead organizations to discover new innovations for addressing the problems of an ever-dynamic world. In this context, a cognate area is a discipline that when combined with computing creates a new computationally enhanced area of study. Certainly, there currently exist such disciplines within the sciences, engineering, and business (e.g., computational science, computational engineering, business information systems, etc.). The National Science Foundation has long supported work in this "CS + X" area. It is our intent to create a mechanism on our campus by which CS + X can be embraced and implemented via partnerships between disciplinary units in which the potential for computing-enabled study exists. We believe this program creates a pathway for adult learners identified through Tennessee Reconnect to pursue computing degrees while also relying on knowledge gained from careers or past military service.

As such, the goals of this program are three-fold:

- To design a new kind of degree program that seeks to exist in the "intersection" between the disciplines of computer science, innovation, and entrepreneurship, and the many disciplines that form our public and private sector workforce
- To establish partnerships with the program stakeholders, especially employers, to ensure the future success of program graduates while also paving the way for addressing the need to develop a 21st century workforce
- To launch the IC Program with a cohort of students that come from a diverse set of backgrounds and experiences

The IC program will require 120 credits for completion in four (4) primary areas of focus:

- 1. General Education Core (41 credits)
- 2. Computing Core (30 credits)
- 3. Intersectional Core (18 credits)
- 4. Cognate Area (25 credits)
- 5. Elective Credit (6 hours)

Graduates from the IC program will have an ability to:

- 1. Analyze complex computing problems and apply principles of computing and other relevant disciplines to identify solutions.
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

A summary of the program and its structure is shown below.

- General Education Core (41 credits): The general education core follows the university's required model for breadth in writing, communication, history, sociology, humanities and fine arts, mathematics, and natural science. The total number of credits is 41 but will overlap with the mathematics required in the intersectional core.
- Computing Core (30 credits): The Computing core provides a strong foundation and expertise in the area of computer science and coding.
- Intersectional Core (18 credits): The intersectional core component of the program is designed to equip students with the ability to analyze problems, consider issues related to the cross-section of computing and a cognate area, and apply design thinking and entrepreneurship to support innovation in the intersection of the related disciplines.
- Cognate Area (25 credits): The Cognate component of the program is designed to provide depth in a non-computing area to facilitate graduates with a level of expertise needed to apply computing in that area. The Cognate includes the construction of a sequence of courses equivalent to a minor in that discipline and 10 credits of formal experiential learning using the studio model.

The program will be delivered in a mixture of hybrid and face-to-face courses that emphasize experiential and learner-centered instruction, including the use of practice-based studio courses. We expect to attract a wide variety of students ranging from traditional populations to adult learners and military veterans.

Alignment with State Master Plan and institutional mission profile

Alignment with State Master Plan

The IC program will address the following strategic initiatives:

- TN Reconnect—Drive to 55
- THEC Master Plan—Future of Work
- Hope Scholarship—Retention
- Future Workforce Initiative—STEM

A 2017 TN Reconnect report indicated that over 900,000 Tennesseans have some college credit but no college degree. For the state of Tennessee to meet the Drive to 55 initiative, we must take every reasonable step to keep students progressing toward the degree. The IC Program will provide options for students and advisors while embracing TTU's Strategic Plan to be responsive to the needs of stakeholders. Moreover, the IC Program addresses TBR's goal of Student Success by "fostering student persistence to degree completion."

The Higher Education Master Plan (entitled Enabling the Competitive Edge), cites a need to *increase computer science and data analytics offerings* in the section on the Future of Work (pp. 34-37). In addition, it emphasizes that programs need to think creatively about offering coursework in a manner that does not require proficiency in upper-level mathematics. This program directly aligns with this language.

Additionally, the Master Plan states that *all individuals employed in Tennessee must learn to interact with artificial intelligence using critical thinking, data analysis, and diverse communication skills.* The IC program will integrate practical artificial intelligence instruction to ensure that its graduates satisfy this goal.

The IC Program will be an efficient pathway for students to maintain scholarship eligibility (HOPE, Pell, and other scholarships). According to a recent THEC report "nearly two-thirds of the students who received the HOPE scholarship lost their awards in the second year of college". The program will enable students to pursue a degree path that is innovative and thus save their GPA and keep their financial aid. According to a recent Forbes study, losing financial aid is the main reason students drop out of college; therefore, maintaining scholarship eligibility is critical to student retention. IC Program will enable students to remain in college and make progress toward their degree. Consequently, the program will have a positive impact on retention rates. Tennessee Tech's fall-to-fall retention rates for first-time freshmen hover around 80%, and the program can enhance this percentage.

Governor Lee announced the Future Workforce Initiative to increase science, technology, engineering, and mathematics (STEM) training. Governor Lee said, "The Future Workforce Initiative is a direct response to the emerging technology industry and making sure our students are first in line to be qualified for technology jobs." Governor Lee noted that "58 percent of all STEM jobs created in the country are in computing but only 8 percent of graduates study computer science in college," The IC program will address workforce initiatives by creating partnerships that engage industry leaders, workplace managers, and business executives. The partnerships will identify gaps in the workforce and shape the IC curriculum to provide innovative solutions to address the shortcomings.

Alignment with Institutional Mission

Tennessee Tech University's Mission is to create, advance, and apply knowledge to expand opportunity and economic competitiveness while delivering enduring education, impactful research, and collaborative service. The proposed Bachelor of Science Degree in Interdisciplinary Computing aligns with the university's mission to create knowledge for students to be competent and help them apply this knowledge to improving the quality of life for individuals, families, and communities.

With respect to the Tennessee Tech University Strategic Plan, *Tech Tomorrow*, we believe the program will have the following impact:

Goal 1: Education For Life. Tennessee Tech provides education that unleashes the potential and passion within our students and prepares them for successful careers and culturally enriched lives. Tech also provides educational opportunities, programs, credentials, and degrees to fuel the lifelong learning necessary for enduring achievement.

The Program will incorporate experiential learning and workplace partnerships into the program at multiple points to create education/work connections.

Goal 2: Innovation in all We Do. TTU innovates in all we do, embracing and deploying our technological foundation in our education, research, service, and stewardship.

Innovation is at the core of the program. The goal is to create learning opportunities in the intersections between computing and various cognate areas. Building expertise in multiple areas will help create more career-ready, flexible graduates.

Goal 3: Exceptional Stewardship. Tennessee Tech is committed to optimizing resources and continuously improving effectiveness, efficiency, and return on investment for students.

Combining the resources and strengths of both the College of Engineering and the College of Interdisciplinary Studies allows for more effective use and deployment of finances and people. The program will utilize current quality resources and leverage strategic partnerships between departments/schools.

Goal 4: Engagement for Impact. Tennessee Tech fosters partnerships with government, business, and non-profit organizations to advance economic and workforce development, create and disseminate knowledge, serve the public good, and generate cultural impact.

Partnerships with industry/workforce connections will be central to the program. Education will be exploratory, experiential, and real-world applied. Students will work together to solve problems and apply learning.

Institutional capacity to deliver the proposed academic program

Tennessee Tech University offers a comprehensive set of programs that range from science and engineering to nursing, fine arts, business, and education, to name a few. The Department of Computer Science in the College of Engineering has 24 full-time faculty that are available to contribute effort towards this program. The College of Interdisciplinary Studies expects to add a faculty member to support the program, as well as adjunct faculty. In addition, faculty affiliates from each of the disciplines in which cognates will be developed will also provide support, either indirectly as students complete minors within the disciplines, or directly through engagement in practicum and capstone courses.

Support staff from the College of Engineering, College of Interdisciplinary Studies Student Success Center, and the Launchpad Student Success Center will be available to provide academic advising, and technical support and facilitate students who have other academic needs. Advisors in the College of Interdisciplinary Studies have extensive experience providing support services to students pursuing degrees that combine various fields of study and routinely work with adult students and military students/veterans. In addition, as students receive other instruction within the cognate areas, support will be provided through the affiliated colleges and departments.

Existing space in Bruner Hall and the Ashraf Islam Engineering Building will be used for instruction, including the collaborative spaces that have been created to facilitate team-based projects. Both buildings provide learning spaces that enable teams to seamlessly communicate and collaborate in face-to-face settings supported by technology. We also expect to develop several online and hybrid courses for this program with the support of the Center for Innovation in Teaching and Learning (CITL) at Tennessee Tech.

We expect the impact on other existing computing programs at Tennessee Tech to be negligible. Specifically, our target populations of students are not students that are currently seeking Computer Science, Computer Engineering, or Business Information Technology degrees, but rather students that are interested in the integration of technology within their disciplines of interest. As such, we expect the enrollment to positively affect overall enrollment rather than decreasing enrollment in existing programs.

Existing programs offered at public and private Tennessee universities

Currently, there are no programs in Tennessee's public and private universities that share the same CIP code, 11.0104, as the proposed program. However, multiple programs with similar CIP codes are offered in Tennessee universities.

Table 1 provides a list of the computing programs with similar CIP codes in the public and private universities within the State of Tennessee. These programs are largely situated in traditional locations including colleges of engineering and business. Other programs throughout the state

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fall within the expected computer science umbrellas, with concentrations ranging from cybersecurity, data science, and AI, to information systems and information technology, and other similarly traditional focus areas. The program most closely aligned with the IC program is the College of Emerging and Collaborative Studies, BS in Data Science, at the University of Tennessee at Knoxville, which will be implemented in Fall 2024. Their program is meant to address many of the same concerns as the program we are constructing, including the focus on interdisciplinarity, emerging technologies, and collaboration. The primary difference, based on our research into this program, is our focus on explicitly developing a cognate curriculum based on the alignment with minors, and the partnerships needed to provide students with situated experiences within the associated disciplines.

Program with Similar CIP Code						Degrees Awarded		
Institution	Public or Private	Degree	Program	CIP Code	2020- 21AY	2021- 22AY	2022- 23AY	
Austin Darry Chata		B.S.	Computer Information Technology	11.0103	32	26	21	
University	Public	B.S.	Computer Information Systems	11.0501	41	36	26	
		B.S.	Computer Science	11.0701	17	17	25	
East TN State University	Public	B.S.	Computing	11.0101	78	91	78	
Middle TN State	Dublis	B.S.	Computer Science	11.0701	74	83	73	
University	Public	B.S.	Data Science	30.0701	0	3	19	
Tennessee State University	Public	B.S.	Computer Science	11.0701	23	27	28	
Tennessee Technological University	Public	B.S.	B.S. Computer Science		88	115	129	
University of Memphis	Public	B.S.	Computer Science	11.0701	56	71	68	
University of Tennessee- Chattanooga	Public	B.S.	Computer Science (BS)	11.0701	36	36	44	
		B.S.	Information Sciences	11.0401	2	11	31	
		B.S.	Computer Science	11.0701	87	79	113	
University of Tennessee-		B.S.	Data Science*	30.7001				
Knoxville	Public	B.S.	Applied Artificial Intelligence*	11.0102				
		B.S.	Innovative Transdisciplinary Studies	30.0601				
University of Tennessee-	Dublic	B.S.	Computer Science	11.0701	12	7	9	
Martin	PUDIIC	B.S.	Information Systems	52.1201	7	11	12	

Table	1 List of	Computing	Programs	with Similar	· CIP	Codes at	Tennessee	Public	and Privat	e Universities
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University of Tennessee- Southern	Public	B.S. Computer Information Systems**		11.0101			
Vanderbilt University	Private	B.S.	B.S. Computer Science		114	157	158
Lipscomb University	Private	B.S.	Information Technology	11.0103	6	4	5
		B.S.	Computer Science	11.0701	1	2	3
		B.S.	Software Engineer	14.0903	8	6	10
Belmont University	Private	B.S.	Computer and Information Sciences	11.0101	7	15	13

*Program implemented in Fall 2024

**Program implemented in Fall 2021

Accreditation

The proposed program will fall under the umbrella of institutional accreditation from SACSCOC, as are all academic programs at Tennessee Tech University so accredited. The new program will not pursue a programmatic accreditation; however, we are committed to maintaining the high quality that accredited programs are known for. To ensure this, we will be utilizing ABET's established learning outcomes and evaluation criteria as benchmarks for our program's success. By aligning with these standards, we can provide students with a robust educational experience that meets industry expectations. This approach allows us to focus on delivering quality education while maintaining the flexibility to adapt the program to our student's needs and the evolving demands of interdisciplinary computing. The program will undergo a regular review process once every five years.

Section III: Feasibility Employment Opportunities

Computing is increasingly driving the transformations occurring across industries ranging from health care to finance and beyond. A recent article in Inside Higher Ed noted that students need a computer science foundation to prepare for success later in their curriculum. Archaeologists write programs to piece together fragments of ancient ruins. Economists apply deep learning models to financial data. Linguists write programs to study statistical properties of literary works. Physicists study computational models of the universe to analyze its origins. Musicians work with synthesized sound. Biologists seek patterns in genomes. Geologists study the evolution of landscapes. Artists work with digital images. Whether one thinks that the purpose of a college education is to prepare students for the workplace or to develop foundational knowledge with lifetime benefits (or both), computer science, in the 21st century, is fundamental. The program will cultivate the intersections that already exist within the college environment. Indeed, in addition to the physical computing technologies being used, the increased use of machine learning and analytics is changing the way that every industry conducts business. One needs to look no furtherthan their own pocket to find a transformative device that drives communication and

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Tennessee Tech University has created a *first-in-the-state* Computer Science Education (CSED) endorsement program meant to provide both pre-service and in-service teachers with the education and credentials needed to meet the goals of the initiative (TNCS, 2022). As such, Governor Lee has made Computer Science a major component of his legislative agenda. Oracle announced on April 23, 2024 that they are moving their corporate headquarters to Nashville. According to the Tennessean (Leyva, 2024), "The software giant's move to Nashville is expected to create 8,500 jobs over the next decade". A search of jobs available in Tennessee under "Computer and Information Systems Managers" yielded 560 available positions posted between February 27 and April 25. A similar search under "Computer Systems Analysts" yielded 559 postings, and "Software Developers" yielded 1216 postings for the same two-month period (O*NET Online, April 25, 2024). A search of Computer Information Systems positions on the job site *indeed* yielded 363 open positions in Tennessee requiring a bachelor's degree (6/21/24).

The THEC State Supply and Demand Report identified information technology as an in-demand occupation in Tennessee and across the nation. IT occupations are projected to grow 2.9 percent annually from 2020 to 2030, faster than the average for all occupations. The most in-demand IT occupations include computer user support specialists, computer network support specialists, computer systems analysts, information security analysts, and software developers. The report also indicated that several aligned academic programs are meeting unmet need criteria, including bachelor's degrees for computer systems analysts and computer and information sciences. This proposed program will help fill the gap, meet these unmet needs, and serve the state of Tennessee.

According to the U.S. Department of Labor Bureau of Labor Statistics (BLS), overall employment in computer and information technology occupations is projected to grow much faster than the average for all occupations from 2022 to 2032. About 377,500 openings are projected each year, on average, in these occupations due to employment growth and the need to replace workers who leave the occupations permanently.

Clearly, we need more students with knowledge and expertise in computing. With the emphasis on Computer Science from the Governor's office and the expanding role of Computer Science in our everyday lives, the IC program can help recruit, retain, graduate, and employ students who have a strong foundation in technical (computer science) and critical thinking skills (i.e., innovation) while having competency in the facets of both established and emerging disciplines(i.e., cognate areas). The IC program will weave technology-infused coursework into the deep knowledge base of cognate areas to build a 21st-century degree that more effectively and

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efficiently addresses the challenges of a changing world.

New Academic Programs Proposal (NAPP).

Section IV: Implementation Timeline

Estimated Timeline:

- LON submission June 28, 2024
- College Curriculum Committees September 2024
- University Curriculum Committees September 2024
- NAPP submission October 2024
- External review November 2024
- Submission of external review to THEC December 2024
- Submission of TTU's response to external reviewer's report February 2025
- Institutional governing board approval March 2025
- THEC Action May 2025
- A SACSCOC notification will be submitted immediately after THEC approval.
- Enroll students for Fall semester August 2025

Section V: Student Interest and Community Partnerships

Student interest in Computing

The Computer Science BS program grew from 364 to 722 between 2016 and 2023 (growth of over 100%) to become the largest undergraduate major by enrollment. The first-time freshman enrollment grew from 80 to 173 in the same time period, a growth of 115%. An associated *pre-major* program (Interdisciplinary Studies Interest in Computer Science) has seen 12.7% growth over the past three years to approximately 75 students. These students typically migrate to either Computer Science or to the Business and Information Technology program. The Computer Science minor enrolled 35 students in 2020, while Computer Engineering BS has over 110 students. In the College of Business, the Business & Information Technology (BIT) program has grown 11%, while the Business Intelligence & Analytics (BIA) program has grown 19%. Both programs combined number approximately 120 students. Including graduate programs, there are nearly 1000 students (roughly 10% of the total enrollment) at Tennessee Technological University that are pursuing computing-based degrees.

The demand for computing graduates continues to grow both in Tennessee and nationwide. According to the Bureau of Labor and Statistics, nationwide demand for software developers will increase by 22% between 2019 and 2029. Other similar jobs, such as information security analysts, are expected to see similar increases in job availability.

We believe, as stated earlier, that this program will be appropriate for the following populations

of students:

- Adult learners in the workforce and military veterans: This population of students is comprised of people that have experience and knowledge from a wide variety of disciplines that are interested in using computing to enhance their abilities within a given domain. This program allows those learners to integrate computing with knowledge gained from prior work environments.
- Traditional students with interests in integrating computing knowledge within a cognate discipline: Computing is has become more and more integral to all disciplines, especially as data science, analytics, and artificial intelligence become critical for gaining insight into strategic and tactical operations of organizations in public and private sectors. This program helps to create a new brand of workforce that is highly integrated into these sectors.
- Tennessee Colleges of Applied Technology (TCAT) and Community College (CC) transfer students: Graduates and transfers from TCAT and Community College institutions represent a growing population of students. The focus on the practical application of computing within cognate disciplines will allow this population to more seamlessly transition into the program through the use of skills gained at their TCAT and CC institutions.

Student Surveys

A survey was distributed to N=248 students (with an 18% return, 45 responses) asking the following questions with a 5-point Likert Scale ranging from Strongly agree to Strongly disagree:

- 1. A computing degree that is integrated with another specific discipline such as biology, geosciences, humanities, engineering, or some other major is well aligned with my future career goals.
- 2. If the BS in Interdisciplinary Computing had been available as a major when I started at Tennessee Technological University, I would have considered it as a major.
- 3. Given that computing technologies (including artificial intelligence) is used by public and private sector businesses and organizations, it is important for Tennessee Technological University to have a major in Interdisciplinary Computing.

94% believe the university should have this degree.

The responses for the survey are shown in the following tables. <u>Table 2</u> shows the respondent data for Question 1. Question 1 was used to determine relevancy of the interdisciplinary computing program with respondents' career goals. The data shows that 72% of the respondents

find the program to be in alignment with their goals.

Table 2 Q1 - Alignment with Career Goals

Q1 - A computing degree that is integrated with another specific discipline such as biology, geosciences, humanities, engineering, or some other major is well aligned with my future career goals.	Percentage
Strongly agree	38%
Somewhat agree	34%
Neither agree nor disagree	9%
Somewhat disagree	9%
Strongly disagree	9%

<u>Table 3</u> shows the responses for Question 2. Question 2 was used to determine whether students would have chosen the BS in IC had it been available as a major when the student joined the university. 59% of the students either *strongly* or *somewhat agreed* to the statement while less than 25% selected *strongly* or *somewhat disagree*.

Table 3 Q2 - Would have considered IC as a major

Q2 - If the BS in Interdisciplinary Computing had been available as a major when I started at Tennessee Technological University, I would have considered it as a major.	Percentage
Strongly agree	25%
Somewhat agree	34%
Neither agree nor disagree	19%
Somewhat disagree	13%
Strongly disagree	9%

Table 4 shows the responses for Question 3. Question 3 was used to determine student opinion on the importance of the IC program for Tennessee Technological University. 94% of the respondents indicated either *strongly agree* (66%) or *somewhat agree* (28%).

Table 4 Q3 - Importance	of the BS in IC fo	or Tennessee Tech
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Q3 - Given that computing technologies (including artificial intelligence) is used by public and private sector businesses and organizations, it is important for Tennessee Technological University to have a major in Interdisciplinary Computing.	Percentage
Strongly agree	66%
Somewhat agree	28%
Neither agree nor disagree	3%
Strongly disagree	3%

Students were also asked to provide other comments. The responses discuss the value of interdisciplinary degree programs, especially combining computer science (CS) with other fields such as healthcare. The responses highlight the importance of understanding both the fundamental tools and the application context—using healthcare and computer science as examples. The responses support the idea of programs that educate students not just in computer usage but in applying computing effectively to specific fields, such as healthcare, to make tools that are both powerful and usable. They also note the rapid evolution of Al and its impact on the job market, advocating for interdisciplinary programs to adapt to these changes. One respondent personally relates to the need for such programs, expressing how an interdisciplinary computing class would benefit their own career and company in Cookeville, suggesting that such education would expand employment and internship opportunities. Another respondent related the effort to their educational journey, noting a switch from computer science to business and information technology due to challenges with calculus, suggesting that a more tailored program could have better supported their needs.

Articulation and transfer

Since the program pairs computing with a secondary discipline, pathways associated with the secondary disciplines that the proposed program supports are likely to be acceptable for entry into the proposed program. We expect the number of supported secondary disciplines to grow over time. Therefore, the number of acceptable entry pathways should grow correspondingly. Additionally, there are a small number of community college programs that are good candidates for articulation into the proposed program as the appropriate secondary disciplines are supported. These include Medical Informatics at both Cleveland State and Roane State as well as Health Informatics at Volunteer State or other similar programs.

Enrollment and Graduation Projections

Projected Enrollments and Graduates						
Year	Academic Year	Projected Total Fall Enrollment	Projected Attrition (per year)	Projected Graduates		
1	2025-2026	10	2	0		
2	2026-2027	15	3	0		
3	2027-2028	20	5	0		
4	2029-2030	30	7	7		
5	2030-2031	40	7	12		

Community and industry partnerships

The Department of Computer Science has established several partnerships with companies that serve both public and private sectors alike. These partnerships include support for experiential learning projects with students in its senior capstone in the Computer Science BS degree program. Organizations include SAIC, Tennessee Valley Authority, Naval Sea Systems Command (NAVSEA), Oak Ridge National Laboratory, Averitt, AO Smith, ADTran, TN State Parks System, TN State Treasury, Transcard, EOSys, AutoFlyte, Urban Science, and Digital Dream Forge to name a few. We hope to both engage organizations such as these, as well as develop new partnerships, to create experiential learning projects for students in the IC program.

Section VI: Curriculum

Goals and Outcomes

We have designed the architecture of the Interdisciplinary Computing (IC) program so that students with interests originating from different colleges and divisions can have experiences that integrate computing and innovation with those interests.

The goals of this program are three-fold:

- To design a new kind of degree program that seeks to exist in the "intersection" between the disciplines of computer science, innovation, and entrepreneurship, and the many disciplines that form our public and private sector workforce
- To establish partnerships with the program stakeholders, especially employers, to ensure the future success of program graduates while also paving the way for addressing the need to develop a 21st century workforce
- To launch the IC Program with a cohort of students that come from a diverse set of backgrounds and experiences

The Student Outcomes of the program are aligned with the ABET General Criteria for computing programs as listed below and discussed in more detail in the Program of Study section. While we align with these criteria and use them as a model, it is not our intent to seek ABET accreditation.

- 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. (Graduates will have an ability to) recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. (Graduates will have an ability to) function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

The program will be offered through a collaborative effort across the university guided by the College of Interdisciplinary Studies and the College of Engineering. The degree will be housed in the College of Interdisciplinary Studies. The computing core of the program will be taught by faculty in or affiliated with the Department of Computer Science in the College of Engineering. The entrepreneurship, design thinking, and innovation core will be taught by faculty in or affiliated with interdisciplinary studies, engineering, and business. The courses in cognate areas will be taught by faculty in or affiliated with the disciplines embedded in various colleges. Graduates of the IC program will have affiliations with the degree programs that align with their cognate of choice to enable better alignment with the industries in which they will eventually be employed.

Assessment

A Program Coordinator will be hired and collaborate with the chairs of Computer Science and School of Interdisciplinary Studies to assess Student Learning Outcomes. The student learning outcomes for the Interdisciplinary Computing Program align with the ABET learning outcomes followed by the Computer Science department. Each student learning outcome is assessed using a combination of direct and indirect measures including course level assessment of student work, faculty course reflections, and pre-post surveys of student perceptions.

Direct Assessment. Several courses are assessed every semester. These assessments directly examine student work based on performance criteria created specifically for each student outcome. Assessed student work can include sets of exam questions, course activities and projects. The measurement rubric used for direct assessment uses a four-level rubric: Excelling, Practicing, Apprentice, and Novice (E/P/A/N). These criteria are performed on a per student basis.

Faculty Course Reflections (all courses): Each faculty member is asked to complete a course reflection at the end of each semester. The reflection allows a faculty member to summarize the results of the course, map the appropriate objectives and outcomes to the course and identify successes from the semesters, opportunities for improvement, puzzles (i.e., questions to be resolved), suggested changes, issues with facilities, technology issues, and other reflections.

Pre-Post Surveys (Pre-Post): Pre-post surveys are conducted for courses in which a direct assessment is scheduled. The pre-post survey is administered twice: once at the beginning of a semester and again at the end of a semester.

Program Review

After the required THEC post-approval monitoring is completed, the program will be included in Tennessee Tech's QAF plan for the 2030-31 program review.

Academic program requirements

The IC program will require 120 credits for completion in four (4) primary areas of focus:

- 1. General Education Core (41 credits)
- 2. Computing Core (30 credits)
- 3. Intersectional Core (18 credits)
- 4. Cognate Area (25 credits)

will have an ability to:

5. Electives (6 credits)

The program is designed to include 10 credits of formal experiential learning using the studio model as part of the cognate curriculum.

Existing and new courses

The IC program will have the following four components:

• General Education Core (41 credits): The general education core follows the university's required model for breadth in writing, communication, history, sociology, humanities and fine arts, mathematics, and natural science. The total number of credits is 41, but will have overlap with the mathematics required in the intersectional core. The General Education core aligns with Student Outcome 3. Specifically, graduates will have an ability to:

(3) Communicate effectively in a variety of professional contexts.

The courses in this component are expected to follow the university model:

Table 6. General Education Core (41 credits)	
Торіс	Cr
English Composition I and II	6
Communication	3
History	6
Sociology (incl impacts of computing on society)	6
Humanities and Fine Arts (incl one literature)	9
Mathematics (MATH 1830, 1845, 1904, or 1910)	3
Natural Science	8
Total Credits	41

 Computing Core (30 credits): The Computing core aligns with Student Outcomes 1 and 2 of the ABET Computing Accreditation Commission's general criteria. Specifically, graduates

- (1) Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
- (2) Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

The courses in this component include coverage of fundamentals and practice in application development, data and information management, infrastructure, and design.

Table 7. Computing Core (30 credits)

Title	Credits
IC 1020 Connections to Interdisciplinary Computing	1
IC 2500 Introduction to Interdisciplinary Computing	3
CSC 1380 Algorithmic Thinking I in Python	3
CSC 1390 Algorithmic Thinking II (incl data structures)	4
CSC 2380 Software Development	4
CSC 2220 Data Science and AI for Everyone	3
CSC 2700 Discrete structures in CS	3
CSC 2510 Introduction to DevOps	3
CSC 3390 Data Management and Analysis	3
CSC 3380 UX/UI and Usability	3
Total Credits	30

- Intersectional Core (18 credits): The intersectional core component of the program is designed to equip students with the ability to analyze problems, consider issues related to the cross section of computing and a cognate area, and to apply design thinking and entrepreneurship to support innovation in the intersection of the related disciplines.
- The courses in this component provide the foundations for analysis, entrepreneurship, ethics, design thinking, and societal impacts.

Table 8. Intersectional	Core (18 credits)
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Title	Credits
Math 1530 Intro to statistics	3
IC 2500 Technology, Society, and Ethics	3
LIST 3100 Critical Thinking and Problem Solving	3
LIST 4710 Workplace Conflict Resolution	3
LIST 4910 Entrepreneurship	3
IC 4950 or ART 4950 Design Thinking	3
Total Credits	18

- Elective Credit (6 Credits)
- Cognate Area (25 credits): The Cognate component of the program is designed to provide depth in a non-computing area to facilitate provide graduates with a level of expertise needed to apply computing in that area. The Cognate includes construction of a sequence of courses equivalent to a minor in that discipline.

Potential Cognate areas include:

Agri-Business	Computational Engineering
Nursing	Corporate Communication
Project Management	Bio-Science
Business	Interdisciplinary Studies
Sociology	History
Criminal Justice	Environmental Studies
Journalism	Education

This component also adds a three-course *studio* sequence in which students will actively engage in software development relevant to their cognate discipline. This includes a yearlong multidisciplinary capstone course aimed at providing experience with developing software that applies the ideals of innovation and intersection embodied by the degree program.

The courses in this component provide a disciplinary foundation for graduates within the cognate area as well as the software development necessary to facilitate software development on inter- and trans-disciplinary teams.

Title	Credits	
Minor in the cognate discipline		15
IC 3100 Cognate Computing Studio 1 or internship		4
IC 4100 Cognate Computing Studio 2 (Capstone)		3
IC 4200 Cognate Computing Studio 3 (Capstone)		3
Total Credits		25

Table 9. Cognate Area (25 credits)

The table below shows all non-general education courses that are related to the program. This includes 11 new courses. We plan to submit the following four courses—IC 1020 Connections, IC 1200 Introduction to Interdisciplinary Computing, CSC 1380 Algorithmic Thinking I in Python, and CSC 1390 Algorithmic Thinking II (including data structures) in Python—for approval in the Spring 2025 semester. Additional new courses will go through the approval process during the 2025-2026 academic year. These courses have secured campus support.

		Existing	New
Title	Credits	Course	Course
IC 1020 Connections	1		х
IC 1200 Introduction to Interdisciplinary Computing	3		х
CSC 1380 Algorithmic Thinking I in Python	3		х
CSC 1390 Algorithmic Thinking II (incl data structures) in			х
Python	4		
CSC 2380 Software Development	4	х	
CSC 2220 Data Science and AI for Everyone	3	х	
CSC 2700 Discrete structures	3	х	
CSC 2510 Introduction to DevOps	3	х	
CSC 3380 Data Management and Analysis	3		х
CSC 3390 UX/UI and Usability	3		х
MATH 1830 Applied Calculus	3	х	
MATH 1845 Technical Calculus	3	х	
MATH 1904 Extended Calculus	3	х	
MATH 1910 Calculus I	4	х	
MATH 3070 Statistical Methods I	3	х	
IC 2200 Technology and Society / Ethics	3	х	
LIST 3310 Entrepreneurship	3		х
IC 2300 Design Thinking	3		х
IC 3100 Cognate Computing Studio I	4		х
IC 4100 Cognate Computing Studio II	3		х
IC 4200 Cognate Computing Studio III	3		х
LIST 3100 Critical Thinking and Problem Solving	3	х	
LIST 4710 Workplace Conflict and Resolution	3	х	

Table 10. Existing and new courses

<u>Table 11</u> shows the 4-year degree map for the Interdisciplinary Computing program. New courses are depicted in italics. The entire program as shown is comprised of 120 credit hours, with a total of 38 upper-division credits. General Education courses will transfer from Community Colleges. As we collaborate with Community Colleges and TCAT centers, we expect additional courses and programs to transfer. A TTP will be developed for this program for students transferring from Tennessee Community Colleges.

Students can receive a minor in the program by using electives and courses required for their cognate area. The minor would be determined by the Department's offering the minor.

Course Credit He		Jrs	Course Credit Hou	irs	
Semester: Fall Sem Hours:			Semester: Spring Sem Hours:	17	
ENGL 1010 English Composition 1			ENGL 1020 English Composition 2	3	
IC 1020 Connections		1	Natural Sciences Elective	4	
IC 1200 Intro to Interdisciplinary Cor	nputing	3	IC 2200 Technology, Society, and Ethics	3	
CSC 1380 Algorithmic Thinking I in Python			CSC 1390 Alg Thinking II and Data Structures	4	
MATH 1830, 1845, 1904, 1910	TH 1830, 1845, 1904, 1910 3 Comm 2025/PC			3	
Course	Credit Hou	ırs	Course Credit Hou	ırs	
Semester: Fall	Sem Hours:	16	Semester: Spring Sem Hours:	15	
Humanities / Fine Arts Elective		3	Humanities / Fine Arts Elective	3	
CSC 2380 Software Development			CSC 2700 Discrete Structures in CS	3	
CSC 2220 Data Science and Al for Everyone			MATH 1530 Introductory Statistics		
IC 2300 Design Thinking		3	LIST 3100 Critical Thinking and Problem Solving		
Cognate I		3	Cognate II		
Course Credit Ho		urs	Course Credit Hou	Irs	
Semester: Fall	Sem Hours:	15	Semester: Spring Sem Hours:	17	
LIST 3310 Entrepreneurship	-	3	Elective		
CSC 2510 Introduction to DevOps w	ith Unix	3	HIST 2020 Modern US History		
CSC 3380 Introduction to UX/UI		3	Cognate IV		
HIST 2010 Early US History		3	IC 3100 Cognate Computing Studio I		
Cognate III	0	3	Natural Sciences Elective		
Course	Credit Hou	ırs	Course Credit Hou	Irs	
Semester: Fall	Sem Hours:	15	Semester: Spring Sem Hours:	12	
Social / Behavioral Science Elective		3	Social / Behavioral Science Elective	3	
CSC 3390 Data Management and An	alysis	3	Humanities / Fine Arts Elective	3	
Cognate V	105 0.0	3	Elective	3	
IC 4100 Cognate Computing Studio I	f	3	IC 4200 Cognate Computing Studio III	3	
LIST 4710 Workplace Conflict and Resolution					

Table 11 Degree Map

Students in the program will receive advisement from the Student Success Center in the College of Interdisciplinary Studies. The advisers are trained to work with students that have in-class and out-of-class stressors. Additionally, tutors are available through the university and the College of Engineering to assist students in need. They readily recognize and address students that might be struggling. If a student desires to take an overload, advisors work with the student and approval by the Chair of the department is required.

Construction of Cognate Areas

Several potential cognate areas were listed above. The methodology for creating cognate areas will include these steps in partnership with affiliated faculty within a given discipline:

- (1) Development of cognate vision statement outlining the purpose and motivation behind enhancing the cognate discipline with computing.
- (2) Identification and recruitment of designated Cognate Champions in cognate areas. These champions will serve as advocates for the program, promoting, designing, and teaching interdisciplinary computing courses within their disciplines.
- (3) Identification of key courses in the cognate area needed to prepare an ICS student to acquire the domain knowledge necessary to develop computing solutions within that cognate specialty
- (4) Creation and management of relationships with key employers to identify, validate, and maintain key skills necessary for computing professionals within the cognate domain

Example Cognate Area: Biology

In this section, we provide examples of three different potential cognate areas built upon a foundation in biology. The cognate is constructed under the assumption that two science sequence courses scheduled in the third year of the degree map would be scheduled in the Freshman year to allow for completion of the remaining cognate courses as designed (with the history courses moving to the Junior year). The cognate design includes three different biology pathways: a laboratory science pathway, an environmental science pathway, and a combined pathway with elements of both laboratory science and environmental science.

<u>General Requirements</u> BIOL 1113 General Biology 1 (4) BIOL 1123 General Biology 2 (4)

<u>Biology Lab Cognate</u> - 15 credits of the following: BIOL 3120 General Ecology BIOL 3140 Cellular Biology (3) BIOL 3200 General Microbiology OR 3230 Health Science Microbiology (3) BIOL 3810 General Genetics (3)

BIOL 4150 Molecular Genetics (3) BIOL 4850 Applied Microbiology (3)

Environmental Science Cognate - 15 credits of the following:

BIOL 3120 General Ecology (3)
GEOG 4410 Remote Sensing (3)
WFS 4870 GIS for Wildlife and Fisheries OR GEOG 4510 Theory of GIS (3)
BIOL 4840 Limnology (3)
WFS 4730 Conservation Biology
WFS 4770 Nongame Species Management or WFS 4700 Habitat Management (3)

Biology Cognate - 15 credits of the following:

Biol 3120 General Ecology (3) BIOL 3810 General Genetics (3) BIOL 3140 Cellular Biology (3) GEOG 4410 Remote Sensing (3) WFS 4870 GIS for Wildlife and Fisheries OR GEOG 4510 Theory of GIS (3) WFS 4730 Conservation Biology OR BIOL 4150 Molecular Genetics OR BIOL 4850 Applied Microbiology (3)

Benefits:

- The IC program recognizes the "technological" part of our university identity by integrating computing across the curriculum of the associated cognate areas.
- By affiliating students with their choice of cognate, students retain their identity within that discipline (viewing computing as a foundational skillset for that discipline) and units maintain a relationship with those students as part of their departments, enabling all of campus to share in the anticipated enrollment growth (cooperation not competition)
- Increased inter-disciplinary opportunities across campus (for students and faculty), leading to increased innovation both inside and outside the classroom.
- Provides a new option for a population of students whose needs do not match well with our existing options.

Section VII: Projected Costs and Revenues for the Proposed Program Costs

The estimated costs to deliver the proposed program include one-time expenditures and Recurring Expenditures

• One-Time Expenditures:

Information Technology: The fund will be used for new computers and software for student labs.

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<u>Consultants.</u> Costs for the external reviewer contract	Consultants:	Costs	for the	external	reviewer	contract.
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One-Time Expenditures									
	Planning Year	Year 1	Year 2	Year 3	Year 4	Year 5			
Marketing	\$1,000								
Consultant	\$2,500								
Information Technology		\$2,500	\$2,500						
Library									
Travel									
Total One-Time Expenditures	\$3,500	\$2,500	\$2,500						

Table 12. One-Time Expenditures

Recurring Expenditures

<u>*Coordinator/Lecturer:*</u> A Coordinator/Lecturer will be hired in the School of Interdisciplinary Studies to address needs in certain special fields and to accommodate growing enrollment.

Faculty and Instruction Staff: Cognate champions or faculty members who advocate for the program in cognate areas will receive compensation. They will create and teach courses in the program. The number of Cognate champions will depend on students' interest areas. Instructional adjuncts will also be hired to teach new courses. As the number of students in the program increases, additional funding will be allocated for hiring more adjuncts.

<u>Non-Instructional Staff</u>: The College of Interdisciplinary Studies will hire a recruitment specialist to assist with recruitment, advising, course scheduling, and other administrative responsibilities. The recruiter will devote 50% of the time to recruiting for the program. Additionally, the College of Interdisciplinary Studies will provide administrative support for the program. As the program grows, an administrative assistant will be hired in the School of Interdisciplinary Studies.

<u>Marketing</u>: This new degree program will be marketed through print, online and in-person methods. A draft website page will be created when appropriate to begin to spread the word about this new graduate degree. The School of Interdisciplinary Studies pays a monthly service fee to the Office of Communications and Marketing to receive a certain number of hours each month for website maintenance. Print brochures and postcards will be designed with assistance from the Office of Communications and Marketing.

Library: The costs for periodicals, journals, reference materials, and possible multimedia resources.

<u>*Travel:*</u> The travel funds will be used for faculty professional development and attending conferences.

<u>Other operating</u>: An Administrative Assistant will be hired in SOIS to support the program.

Recurring Expenditures								
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5		
Coordinator/Lecturer		\$95,000	\$97,850	\$100,786	\$103,809	\$110,131		
Cognate Champions								
and Instructional		\$40,000	\$40,000	\$45,000	\$45,000	\$45,000		
Adjuncts								
Fringe Benefits		\$55,850	\$56,476	\$57120	\$57,784	\$58467		
Non-Instructional Staff		\$40,000	\$41,200	\$42,436	\$43,708	\$45,020		
Graduate Assistants								
Program Review						\$2,500		
Consultants								
Equipment								
Information								
Technology								
Library		\$4,000	\$4,000	\$4,000	\$4,000	\$4,000		
Marketing		\$2,000	\$3,000	\$4,000	\$5,000	\$6,000		
Facilities								
Travel		\$2,000	\$2,500	\$2,500	\$2,500	\$3,000		
Other Operating								
Total Recurring	\$0	¢2112E0	\$217026	¢255 Q12	\$261 201	¢271 110		
Expenditures		\$ <i>241,</i> 550	<i>⊅241,</i> 020	<i>⊅</i> ∠⊃⊃,042	\$201,0U1	\$∠14,110 }		

Table 13. Recurring Expenditures

Tuition

In projecting revenues, the tuition component includes both tuition and fees. The estimates for tuition and fees are based on projected enrollments and graduates outlined in Table 5, assuming in-state undergraduate tuition and fees. Full-time students are assumed to take at least 12 credits each fall and spring semester. For Years 2 through 5, a 3% increase in tuition is projected. Please refer to the Financial Projections Form for the total revenues for each year.

For example, in Year 1, the total in-state full-time tuition and fees are \$5,688 per semester. The

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anticipated enrollment for Year 1 is 10 students. Therefore, the total revenue for Year 1 is calculated as follows: $5,688 \times 10$ (students for the Fall semester) + $5,688 \times 10$ (students for the Spring semester) = 113,760.

Projected Revenue							
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	
Tuition & Fees		\$113,760	\$175,759	\$241,376	\$372,925	\$512,151	
Grants		\$0	\$0	\$0	\$0	\$0	
Total Revenues	\$0	\$113,760	\$175,759	\$241,376	\$372,925	\$512,151	

Table 14. Projected Revenue

Grants

It is not estimated that any grant funding will be used.

Other

No other funding source is identified.

Section VIII: Institutional Resources Faculty Resources

The Department of Computer Science in the College of Engineering has 26 full-time faculty. CS courses that already exist will be taught using relevant faculty as part of the regularly scheduled offerings. The School of Interdisciplinary Studies will utilize current adjunct faculty to assist with Intersectional Core and other applicable courses. Additional courses that already exist will be taught through the minor degree programs associated with the cognate areas, and general education courses.

Current Faculty

All faculty have met SACSCOC faculty credential requirements. They have attained appropriate expertise and educational background in their respective area of study and will contribute to providing a robust program. The following table shows faculty that are qualified to teach any new course being designed as part of the program. It is projected that each course taught is equivalent to 5% effort in the workload of a faculty member in a given academic year.

Current Faculty Roster									
Faculty Name	Highest Degree	Rank	Primary Department	Full- time or Part- time	% of Time Devoted to Program				
Doug Talbert	PhD	Professor	Computer Science	FT	10				
Jacob Strickler	MS	Lecturer	Computer Science	FT	10				
Benjamin Burchfield	MS	Lecturer	Computer Science	FT	10				
Travis Brummett	MS	Lecturer	Computer Science	FT	10				
Gerald Gannod	PhD	Prof. and Chair	Computer Science	FT	10				
Steven Frye	PhD	Prof. and Chair	Interdisciplinary Studies	FT	10				

Table 15. Current Faculty Roster

Anticipated new faculty and instructional staff

The College of Interdisciplinary Studies expects to add a coordinator/faculty member to support the program, as well as additional adjunct faculty. In addition, faculty affiliates from each of the disciplines in which cognates will be developed will also provide support, either indirectly as students complete minors within the disciplines, or directly through engagement in practicum and capstone courses.

The coordinator hired in the first year will create new courses, teach, and direct the program. They will responsible for recruiting "Champions" across the campus. In addition to recruiting "Champions," they will work with the Recruiter to enroll students into the program.

We will recruit cognate champions in related cognate areas beginning in the fall semester of 2025. Compensation will be provided to faculty in the cognate areas for new course creation. SOIS has a history of providing compensation for new course development. Additionally, SOIS will collaborate with the Center for Innovative Learning and Teaching to assist faculty in course development.

Table To. Anticipated Faculty and Instructional Stan										
Anticipated Faculty and Instructional Staff										
Faculty Rank or Job Title	Full-time or Part-time	Anticipated Start Date	Comments							
Coordinator/ Lecturer	Full-time	\$95,500	August 2025	A nationwide search will be conducted in 2025.						

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Table 16. Anticipated Faculty and Instructional Staff

Cognate Champions	Compensations for full-time faculty in cognate areas	\$5,000/per cognate champion	August 2025	Number varied depending on students' interest areas
Adjuncts	Part-Time	\$6,000 per adjunct/per year	August 2025	2 – 4, varied

Non-Instructional staff

The School of Interdisciplinary Studies Administrative Associate will provide administrative support in the form of student information reports, ordering supplies, program communication and maintaining financial records. University assistance is already being provided by the Office of the Provost (consultation and guidance); the Center for Innovation in Teaching and Learning (faculty development); as well as the College of Interdisciplinary Studies Student Success Center.

The College of Interdisciplinary Studies will hire a recruitment specialist to assist with recruitment, advising, course scheduling, and other administrative responsibilities. The recruiter will devote 50% of the time to recruiting for the program. An Administrative Associate will be hired in SOIS to support the program. The Administrative Associate's primary duties will be with this program.

Student support services

Since the BS in Interdisciplinary Computing program is proposed to be housed in the School of Interdisciplinary Studies in the College of Interdisciplinary Studies, the student advising procedure that is currently used in the University, College, and School will be followed.

Student advising is a very important priority to the University for student success. Evidence of this commitment can be seen in the University's new "Launchpad," which sets out the institution's priorities and actions for the next few years. The Launchpad Student Success Center is the one-stop-shop for freshman and undeclared student advising, transition assistance, and academic and personal support at Tennessee Tech. The team is dedicated to helping new students adjust to college life, navigate their first year on campus, and supporting their transition into their academic program of study.

The advising of new freshman begins in the summer prior to the student's entrance term with participation in a SOAR session (Student Orientation, Advising, and Registration) conducted by the University Launchpad and the department. Offered multiple times during the summer, the SOAR sessions enable students and parents to come to campus for a day-and-a-half to meet with 30

their advisors and register for classes, as well as a number of other related activities and events.

The advising at SOAR and throughout the rest of their freshmen year is done by dedicated Launchpad advisors assigned to specific programs. These advisors have in-depth knowledge of issues related to freshmen advising, including such things as General Education requirements, AP & ACT course credit, and mathematics course requirements. Upon reaching their sophomore year, each student is then assigned a college academic advisor for their remaining years in the undergraduate program.

At the college level, student advising is seen as an important area to student retention and success. As part of the College of Interdisciplinary Studies' commitment in this area, the College's Student Success Center was created in the 2012-2013 academic year. The Center currently has a full-time Director, and two full-time academic advisors to provide academic advising, support, encouragement, and resources to help our students as they work toward successful completion of a bachelor's degree.

Students in the program will receive advisement from the Student Success Center in the College of Interdisciplinary Studies. The advisers are trained to work with students that have in-class and out-of-class stressors. They readily recognize and address students that might be struggling. If a student desires to take an overload, advisors work with the student and approval by the Chair of the department is required. Additionally, tutors are available through the university and the College of Engineering to assist students in need.

After the freshman year, students meet with their college advisor at least once a semester, as advisors must approve courses that the students wish to take the next term. College staff members assist with the gathering of information and preparation of advising materials, the approval of course selection forms, substitution forms, course adds/drops, and senior electives requiring the signature of a faculty member. Further details on advising and academic resources for engineering students are available at

https://www.tntech.edu/ssc/advisingresources.php and https://www.tntech.edu/ssc/engineering/resources.php.

Career advising and mentoring is done through several means. The individual faculty advisors counsel students about career paths, co-ops, and employment opportunities. In addition, faculty also discuss this in their lectures; and there is a dedicated lecture on career guidance, resume writing, and interview skills in the Professionalism and Ethics course. Tech's Center for Career Development also conducts regular seminars and workshops every semester as part of a professional development seminar series in cooperation with the College of Engineering.

A Peer Tutoring program is available by appointment and as a drop-in service, providing individual and small group tutoring to students offered by the CoE Clay N Hixon Student

Success Center. Trained peer tutors assist students in improving academic achievement by meeting with them on a regular basis to clarify learning problems, work on study skills through coaching, and assist the student in becoming a successful, independent learner. Other assistance might include reviewing class material, discussing the text, predicting test questions, formulating ideas for papers, or working on solutions to problems.

The Center for Career Development (https://www.tntech.edu/career/students/index.php) is the university's centralized career planning and development and student recruitment center. The center connects students and alumni with employers by offering Career Readiness Certificates, hosting workshops, conducting on-campus interviews, annual career fairs, and coordinating the cooperative (Co-op) education program, which provides students with real-world work experience in their chosen major. The center hosts a variety of programs to help students for career readiness. The workshops, career fairs, and employer engagement events conducted by the center provide students the opportunity to develop skills needed for a co-op, internship, part-time job, and first employment after graduation.

Tennessee Tech is committed to a supportive environment for all students, staff and faculty. As stated in the university's strategic plan, "Tech Tomorrow," we are dedicated to providing a welcoming community, as well as a campus size and atmosphere that fosters personal attention and fit. Students in the proposed Interdisciplinary Computing program will have access to all of the resources, including over 200 student organizations.

Equipment

A list of campus computer labs is available at

https://its.tntech.edu/display/MON/Computer+Labs. Labs such as the Library Learning Commons are open for general use during business hours and allow students to check out laptops and other items for temporary use. Some labs are restricted for the use of students within a particular college or discipline. Two labs on campus are normally open for 24-hour access. The primary role of university laboratories maintained by Information Technology Services (ITS) is to provide fixed computing resources hosting software that is prohibitively expensive or difficult to configure for the end user.

The College of Engineering at Tennessee Tech has a variety of computing facilities available for the proposed IC program. Tennessee Tech offers numerous computer labs for use across campus for teaching and general student use, and faculty can reserve some of these laboratories for teaching classes.

Information technology

The university's ITS provides and supports traditional desktop laboratories, but also a range of other opportunities for accessing software and storage space, along with technology assistance,

as follows:

- TechAnywhere virtual desktops provide on- and off-campus access to a computer environment similar to those found in campus computer labs. This environment is divided in desktop pools. In addition to the Anywhere Computer Lab pool, a student's class enrollment may grant access to additional pools with specialized software.
- Tennessee Tech's secure wireless network for students, faculty, and staff is known as EagleNet. During the past six years, network access has been significantly enhanced in both bandwidth and reliability.
- LabDrive is a file storage space available for faculty, staff, and students using any computer lab on campus. This storage provides up to 5GB of space, and is available from any desktop, laptop, or virtual (VDI) lab computer. It provides temporary storage only.
- TECHcheck on the main floor of the Volpe Library offers a technology checkout service for currently-enrolled Tech students. Laptops, projectors, and other technologies are available for checkout at TECHcheck and may be used for the purposes of study, work, and research.
- The myTECH HelpDesk offers first-level (Tier 1) IT services to the Tennessee Tech community. These services include password resets for Banner SSB (Eagle Online), Banner INB, and e-mail accounts; network connectivity troubleshooting; general technology knowledge base; student PC Service, i.e., general assistance with computer-related issues for students currently enrolled at Tech; Scantron exam grading; and Tier 1 support for Tech-owned faculty and staff devices. Access is available by e-mail and telephone. A chat service is available during normal business hours.
- Lab Patrol is part of the Tier 1 services of ITS. Student Lab Patrol workers are tasked with maintaining the cleanliness and presentability of the university's computer labs. They monitor lab supplies such as printer toner, paper, and other consumables, as well as clean desks, sanitize computer peripherals, straighten chairs, and perform similar tasks.
- Tech provides a High-Performance Computing cluster and a staff member to support it. The staff member assists faculty and students on the use of the cluster, especially with ensuring that the cluster is used both efficiently and equitably across units that wish to use this resource. The staff member also provides short courses and other informal learning opportunities that assist with optimal use of the cluster.
- LinkedIn Learning is an online learning portal offering video courses in multiple fields. It is available for free to all Tennessee Tech faculty, staff, and students.
- Students can download a free copy of Microsoft Office as well as Windows 10. Faculty, staff, and students can also install Office 365 to work from home. Other software and hardware

can be purchased at a discount.

The College of Engineering employs three technical specialist personnel with IT-related backgrounds who work with ITS, college faculty, graduate students, and R&D engineers in the College to provide computer/software support to the departments and programs in terms of computing needs and requirements.

Library resources

The 105,000 square foot Angelo and Jennette Volpe Library at Tennessee Tech has a number of services to support academic programs. The Volpe Library is regularly open 98 hours per week and keeps extended hours during projects week and final examinations week each semester.

Library Collections and Related Services

The Volpe Library offers access to approximately 276,000 physical books and 294,000 electronic book titles. The library also has over 88,000 print and electronic magazines, journals, and newspaper titles. As a selective depository for U.S. government publications, the library receives materials from various government agencies. There are over 35,000 bound volumes of government publications and approximately 4,000 maps. An increasing number of online databases offer on-campus and off-campus access to magazines, journals, and e-books, many with full text. Students needing help finding resources, print or electronic, can make appointments online to meet with a librarian. Like most university libraries, the Volpe Library has transitioned from a focus on providing on- site resources to an approach of enabling access to online resources. Numerous online databases, along with e-journals and government publications, are available from the library's website. (Please see https://www.tntech.edu/library/databases.php.)

EagleSearch is the Volpe Library's one-stop search service for resources. Available from the library's homepage, it searches most of the Volpe Library databases for journal articles, books, and conference proceedings. Every Tech student has an account that allows searches and results to be saved, and the search capability is integrated with inter-library loan and RefWorks. Interlibrary loan is a free service for the Tech community to find and access full-text resources. Resources requested are delivered within two to three days, if digital, to the requestor's account and provide PDF file access. Through the inter-library loan program, students and faculty have easy access to the holdings of most of the libraries in the United States and Canada, as well as a few libraries in other countries.

RefWorks is an online citation management software system provided to Tennessee Tech students and faculty. These systems allow access to the library's holdings and electronic resources from on- and off-campus locations.

Tennessee Tech has partnered with several libraries that augment the library resources on campus. Students and faculty have access to the libraries of the University of Tennessee at Knoxville and a reciprocal borrowing program for faculty with Vanderbilt University, located in Nashville. Tech's faculty build most of the library's collection by making purchase requests to the library tailored to fit their instruction and research needs. Faculty may submit requests either directly to the library online, or through their departmental liaison. Final decisions on purchases are made by the Volpe Library staff. The funds available for this purpose are sufficient to cover all faculty requests of this type.

Testing and Learning Center (TLC)

The TLC area on the first floor of the Volpe Library is for examinees to take class exams, makeup exams, standardized tests, exit exams, major field tests, placement tests, and other proctored exams. Students schedule exams online, and all types of exams are administered simultaneously. The testing area facilitates both paper and computer-based exams.

The TLC also runs the university's tutoring program, which offers free, peer tutoring both inperson and online. Tutors help students understand course material, answer questions, and offer suggestions for studying and learning. Students can schedule tutoring appointments online for any class/subject, writing help, resumes, test preparation, and study skills.

Facilities

The SoIS is located in Southwests Hall. Southwest Hall is where the majority of faculty offices for the department are also located.

The Department of Computer Science is located in Bruner Hall where the majority of faculty offices for the department are also located. A total of two classroom spaces are directly controlled by the School of Interdisciplinary Studies, and a total of 4 are controlled by the Computer Science Department, for instructional purposes. Class sizes are dictated by fire code limits. Each classroom space is multimedia-equipped with a computer, projection equipment, and DVD player. In addition, the University purchased classroom-scheduling software called "Course Dog" is available to assist in finding and scheduling available classrooms on a campuswide basis. Overall, classroom space and quality are more than adequate for the proposed new program.

Table 17. Classroom Space

Room	Description	Equipment	Seating Capacity
AIEB 249	EB 249 Classroom Classroom with mobile seating, multi-display visual reinforcement and wireless networking		67
Bruner 327	Classroom	Multimedia classroom with multi-display visual reinforcement and wireless networking	42
Bruner 228	3runer 228 Classroom with wireless networking capabilities		72
Bruner 410	runer 410 Classroom with additional outlets at the walls and wireless networking		32
Southwest Hall 145	thwest Hall Classroom Classroom with movable seating and wireless networking capabilities		40
Southwest Hall Classroom Multimedia classroom with 142 Detworking capabilities			15

All offices (administrative, clerical, faculty, and staff) are equipped with either a desktop computer or laptop computer with at least one external monitor. Each office has an inkjet or laser printer. Teaching assistants have a shared office space but use their own laptops.

Other resources

In addition to all of the resources previously discussed, other resources located in the Volpe Library are available for students and faculty.

• iCUBE

Tennessee Tech's iCube is a place where students and faculty "imagine, inspire, and innovate" (i3). The goal is to provide creative solutions to traditional problems through marketing, training, website and app development, public policy campaigns, and the application of emerging technologies, such as virtual reality.

• iMakerSpace

The iMakerSpace is a university-wide, student-centered space under the leadership of the Colleges of Engineering and Business. The iMakerSpace serves as a focal point on campus to provide training, service, partnership, research, and evaluation in innovation and entrepreneurship to all disciplines. The iMakerSpace encourages interdisciplinary teams and provides support and training to extend innovation and entrepreneurship activities into research and the classroom.

It is anticipated that the proposed new BSIC program will be marketed by Tennessee Tech's Office of Undergraduate Admissions with dedicated staff and the Office of Communications & Marketing (OCM). The OCM consists of a variety of teams and individuals that are available for help. The OCM reports to the Division of Enrollment & Communication and supports the communication and marketing needs for campus and community.

Section IX: NAPP Appendices

The following pages contain the letters of support from the university president as well as the companies and organizations listed in the Community and Industry section.

Appendix A – Letters of Support Appendix B – THEC Financial Projections Form Appendix C – Faculty CVs Appendix D – Course Syllabi Appendix A

Letters of Support

2



Dr. Steve Frye Director School of Interdisciplinary Studies Tennessee Technological University Cookeville, TN 38505

Dear Dr. Frye:

I am writing to express my support for the proposed new Bachelor of Science degree in Interdisciplinary Computing. I believe the program will enhance Tennessee Tech's academic offerings and serve a wide array of students for the rapidly evolving technology space by bridging the gap between multiple fields of study. Based on my experience, I believe there is an underserved market for graduates of this proposed program. It would be my desire in the future to offer internship opportunities at Cookeville Regional Medical Center for the students of the program that could prepare them for employment postgraduation.

Please feel free to contact me if I can provide any further information.

Sincerely,

In gon

Tim McDermott, MBA Chief Information Officer Cookeville Regional Medical Center



August 25, 2021

Dr. Gerald Gannod Department Chair, Computer Science Tennessee Tech University 1 William Jones Dr. Cookeville, TN 38505

Dr. Gerald Gannod:

Please accept this letter as an indication of our support of Tennessee Tech University's Department of Computer Science and College of Interdisciplinary Studies as they work together to create an Interdisciplinary Computing and Innovation (ICI) program.

In my role as one of the larger IT employers in the region and as chair of our regional Highlands IT Pathway committee, I am acutely aware of the need to offer opportunities such as this to allow students every chance to gain an understanding of growing job markets in our region and the education and skills required to obtain those jobs. Grants like this are exactly what we need to ensure that we are prepared to meet the needs of employers in years to come.

EpiOn and the Highlands IT Pathway Committee are committed to supporting the goals and objectives presented in this proposal. We are part of an extremely strong collaborative made up of K-12 education partners, postsecondary institutions, employers, and community organizations that produce outstanding results that have led to a pipeline of students being prepared for the regional labor market.

We believe Tennessee Tech University's Department of Computer Science and College of Interdisciplinary Studies have presented a proposal with clear intent to create new and strong pathways into computer science while broadening the availability of graduates to serve a wide variety of industries. We are happy to assist with any planning needs of Tennessee Tech as well as provide meaningful data and feedback to encourage the success of this program.

Sincerely,

Don Viar Information Technology Pathway Committee, Chair Highlands Economic Partnership



Barney Maccabe PO Box 2008 Oak Ridge, TN 37831-6164 (865) 241-6504 |<u>maccabeab@ornl.gov</u>

October 15, 2021

The Tennessee Higher Education Commission 312 Rosa Parks Ave, 9th Floor Nashville, Tennessee 37243

To Whom It May Concern:

I am writing in support of the *Letter of Notification* being submitted by Tennessee Technological University (TTU) for the proposal on the Interdisciplinary Computing and Innovation (ICI) program.

In regards to the ICI program, we have discussed the idea with Dr. Jerry Gannod, Harry C. Stonecipher Distinguished Professor and Department Chair at TTU, and how it would potentially impact Oak Ridge National Laboratory (ORNL), especially as we continue to establish best practices in Software Engineering for the support of our research activities at the Lab. We are interested in continuing this conversation and are willing to help TTU further identify needs and outcomes for this program. As currently specified, we believe that the graduates of this program would have the background needed for software development internships and careers at ORNL and look forward to this collaboration with TTU.

Regards,

Sincerely,

Arthur (Barney) Maccabe, Director Computer Science and Mathematics Division



10 W Broad St. Ste. 300 Cookeville, TN 38501 865.298.6454 | saic.com

September 27, 2021

Dr. Gannod,

Thank you for providing a vision of your future Interdisciplinary Computing and Innovation program. I am looking forward to hearing more about the program as it evolves.

As you know computing has a great impact on all of our business lines. SAIC would be interested in seeing how the graduates can support our other business lines outside of Engineering, in particular healthcare and business with strong computing foundations, possibly others depending upon the established programs. As such we offer our full support in establishment of this new program and look forward to engaging with the students.

Thank you,

Jíll C. Moffitt

Jill C. Moffitt, PMP, PMI-ACP Software Engineer Senior Manger Cookeville Site Director

Appendix B

THEC Financial Projections Form

		7		IEC				
		Financi	al Project	ions Forn	n			
Institution	Tennesse	e Technol	ogical Uni	versity				
Program Name	Bachelor	of Science	e, Interdiso	ciplinary C	omputing			
		Projected	One-Time	Expenditu	res			
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6*	Year 7*
Faculty & Instructional								
Non-Instructional Staff								
Graduate Assistants								
Accreditation								
Consultants	\$2,500							
Equipment								
Information Technology		\$2,500	\$2,500					
Library resources								
Marketing	\$1,000							
Facilities								
Travel								
Other								
Total One-Time	¢2 500	¢7 E00	¢7 500	¢∩	¢O	¢O		
Expenditures	<i>₽3,300</i>	<i>₽2,500</i>	<i>₽2,500</i>	<i>\$</i> 0	<i>\$0</i>	<i>\$0</i>		
		Projected	Recurring	Expenditu	res			
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6*	Year 7*
Faculty & Instructional		¢100.950	¢104 226	¢202.006	¢206 E02	¢212 E00		
Staff		\$190,o50	⊅194, 520	\$202,900	\$200,595	⊅Z15,596		
Non-Instructional Staff		\$40,000	\$41,200	\$42,436	\$43,708	\$45,020		
Graduate Assistants								
Program Review						\$2,500		
Consultants								
Equipment								
Information Technology								
Library		\$4,000	\$4,000	\$4,000	\$4,000	\$4,000		
Marketing		\$2,000	\$3,000	\$4,000	\$5,000	\$6,000		
Facilities								
Travel		\$2,000	\$2,500	\$2,500	\$2,500	\$3,000		
Other Operating								
Total Recurring	<i>t</i> 0	#220.050	#2.45.02C	¢255.042	#2C4 004	¢274.440		
Expenditures	\$0	\$238,850	\$245,026	\$255,842	\$261,801	\$274,118		
Grand Total (One-Time	40 700	+0.44.000				+0 - 1110		
and Recurring)	\$3,500	\$241,350	\$247,526	\$255,842	\$261,801	\$274,118		
		Pro	ojected Rev	venue	1			1
Category	Planning	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6*	Year 7*
Tuition		\$113,760	\$175,759	\$241,376	\$372,925	\$512,151		
Grants								
Other								
Total Revenues	\$0	\$113,760	\$175,759	\$241,376	\$372,925	\$512,151		
*Years 6 and 7 should only b	e included fo	r doctoral pi	rograms					



DR. STEVEN GENTILE EXECUTIVE DIRECTOR

BILL LEE GOVERNOR

STATE OF TENNESSEE HIGHER EDUCATION COMMISSION STUDENT ASSISTANCE CORPORATION 312 ROSA L. PARKS AVENUE, 9TH FLOOR NASHVILLE, TENNESSEE 37243

0124 (615) 041-3605 (615) 041-3605

Memorandum

TO:	Dr. Lori Bruce, Provost Tennessee Technological University
FROM:	Dr. Julie A. Roberts, Chief Academic Officer Tennessee Higher Education Commission
SUBJECT:	Tennessee Technological University Interdisciplinary Computing, Bachelor of Science (BS)

DATE: April 7, 2025

Pursuant to Tennessee Higher Education Commission (THEC) Academic Policy A1.0 – New Academic Programs: Approval Process, THEC staff will support the proposed Interdisciplinary Computing, BS. This proposed program has satisfied all requirements including conducting a site visit and responding satisfactorily to all recommendations and suggestions by the external reviewer, Dr. Glenn Platt, C. Michael Armstrong Chair/Professor and Director of the Armstrong Institute for Emerging Technology at Miami University.

Tennessee Technological University (TTU) may now submit a formal request to place the program Interdisciplinary Computing, BS, on the Commission's agenda for consideration of approval. Please note, the request must also include the date of the TTU's Board of Trustees approval for the proposed program.

cc: Dr. Philip Oldham, TTU, President

- Dr. Steven Gentile, THEC, Executive Director
- Dr. Sharon Huo, TTU, Associate Provost
- Dr. Gerald C. Gannod, TTU, Chair, Department of Computer Science
- Dr. Steven Frye, TTU, Associate Professor/Director, School of Interdisciplinary Studies
- Dr. Katherine Brackett, THEC, Senior Director of Academic Affairs
- Dr. Megan Roberts, THEC, Director of Academic Affairs

Ms. Maya Robinson, THEC, AAWA Project Manager



Agenda Item Summary

Date: April 30, 2025

Agenda Item: Maintenance and Mandatory Fees



PRESENTER(S): Claire Stinson, Vice President for Planning & Finance

PURPOSE & KEY POINTS: THEC met on March 19 and voted to approve a binding range for maintenance (tuition) and mandatory fees of 0% to 6.5% for FY 2025-26.

TTU is proposing 4.83% increase for undergraduate tuition and mandatory fees. TTU is proposing to increase graduate tuition by 5%. The tuition increases will be used to provide the required matching for the 2.6% salary pool, costs such as faculty promotions, software contract escalations, increases in utility costs, and increased costs associated with scholarships and state mandated fee waivers.

The increase in mandatory fees will provide an increase in our fitness center operating budget and costs associated with equipment renewal and replacement. The facilities development fee will be used to renovate existing spaces or build new student centric spaces. Projects funded with the facility development fee will focus on facilities where it is extremely difficult, if not impossible, to receive state funding to address the needs.



University



Mandatory

Fee Proposal

2025-2026

TENNESSEE TECH UNIVERSITY PROPOSED FEE CHANGES 2025-26

Rates				Annual Revenue	Prior			
Current	Proposed	Incre	ase	Impact of	Fee Increases			
2024-25	2025-26	Ş/sem	%	Fee Change		Justification		
ervice Fee, charg	ed hourly and reaching a m	naximum at 6 houi	rs)					
3.00 max/sem	\$118.00 max/sem	\$15.00	14.56%	\$274,000	2024-25 \$33 per sem/ 47.14%	*Development and renovation of student centric		
					2023-24 \$19 per sem/ 37.25%	spaces.		
	Part-time per hour fee to b	pe included			2013-14 \$51 per sem/ Initial			
	with Program Service Fee	per hour rate						
enet - Fitness Cer	nter							
ervice Fee, charg	ed hourly and reaching a m	naximum at 6 houi	rs)					
			-					
.00 max/sem	\$68.00 max/sem	\$20.00	41.67%	\$365,350	2017-18 \$3 per sem/ 6.67%	* Operational cost and renewal and replacment of		
		-		. ,	2012-13 \$10 per sem/ 28.57%	equipment.		
	Part-time per hour fee to b	oe included			2001-02 General Access Fee component			
	with Program Service Fee	ner hour rate						
		per nour fute						
(2 3.	Current 2024-25 rvice Fee, charg 00 max/sem net - Fitness Cer rvice Fee, charg 00 max/sem	Rates Current Proposed 2024-25 2025-26 rvice Fee, charged hourly and reaching a n 00 max/sem \$118.00 max/sem Part-time per hour fee to I with Program Service Fee rvice Fee, charged hourly and reaching a n 00 max/sem Part-time per hour fee to I with Program Service Fee When the per hour fee to I With Program Service Fee With Program Service Fee Part-time per hour fee to I with Program Service Fee	Rates Current Proposed Increation 2024-25 2025-26 \$/sem crvice Fee, charged hourly and reaching a maximum at 6 hour 00 max/sem \$118.00 max/sem \$15.00 00 max/sem \$118.00 max/sem \$15.00 Part-time per hour fee to be included with Program Service Fee per hour rate net - Fitness Center rvice Fee, charged hourly and reaching a maximum at 6 hour 00 max/sem \$68.00 max/sem \$20.00 Part-time per hour fee to be included with Program Service Fee per hour rate \$20.00	Rates Current Proposed Increase 2024-25 2025-26 \$/sem % 2024-25 2025-26 \$/sem % revice Fee, charged hourly and reaching a maximum at 6 hours) 00 max/sem \$15.00 14.56% Part-time per hour fee to be included with Program Service Fee per hour rate Inter-Fitness Center rvice Fee, charged hourly and reaching a maximum at 6 hours) 00 max/sem \$20.00 41.67% Part-time per hour fee to be included with Program Service Fee per hour rate	Rates Annual Revenue Impact of Pee Change Current Proposed Increase Impact of Fee Change 2024-25 2025-26 \$/sem % revice Fee, charged hourly and reaching a maximum at 6 hours} On max/sem \$15.00 14.56% \$274,000 Part-time per hour fee to be included with Program Service Fee per hour rate not - Fitness Center rvice Fee, charged hourly and reaching a maximum at 6 hours) 00 max/sem \$68.00 max/sem \$20.00 41.67% \$365,350 Part-time per hour fee to be included with Program Service Fee per hour rate	Rates Annual Revenue Impact of S2024-25 Prior Fee Increases 2024-25 2025-26 \$/sem % Fee Change Prior rvice Fee, charged hourly and reaching a maximum at 6 hours/ 00 max/sem \$18.00 max/sem \$15.00 14.56% \$274,000 2024-25 \$33 per sem/ 47.14% 2023-24 \$19 per sem/ 37.25% 2013-14 \$51 per sem/ 17.25% 00 max/sem \$18.00 max/sem \$10 14.56% \$274,000 2024-25 \$33 per sem/ 47.14% 2023-24 \$19 per sem/ 37.25% 00 max/sem \$18.00 max/sem \$10 14.56% \$274,000 2024-25 \$33 per sem/ 47.14% 2023-24 \$19 per sem/ 37.25% 00 max/sem \$18.00 max/sem \$10 14.56% \$213-14 \$51 per sem/ 6.67% 2013-14 \$51 per sem/ 10.113 00 max/sem \$68.00 max/sem \$20.00 41.67% \$365,350 2017-18 \$3 per sem/ 6.67% 2012-13 \$10 per sem/ 28.57% 2011-21 3 \$10 per sem/ 28.57% 00 max/sem \$68.00 max/sem \$20.00 41.67% \$300 per sem/ 28.57% 2001-02 General Access Fee component		

Tennessee Tech University Proposed Program Service Fee Breakdown Fall 25, Spring 26, and Summer 26

Description		Current Amount Per Semester			Proposed Amount Per Semester		Proposed Incremental Increase	
Student Activity Fee								
Fitness Center		\$	48.00	\$	68.00	\$	20.00	
Athletics Fee		\$	248.00	\$	248.00	\$	-	
Mental Health Wellness		\$	5.00	\$	5.00	\$	-	
Technology Access Fee		\$	130.00	\$	130.00	\$	-	
Debt Service Fee		\$	29.00	\$	29.00	\$	-	
Debt Service Fitness		\$	100.00	\$	100.00	\$	-	
Facilities Fee		\$	103.00	\$	118.00	\$	15.00	
Solo Fee		\$	4.50	\$	4.50	\$	-	
Superfund		\$	25.50	\$	25.50	\$	-	
	Ī	\$	693.00	\$	728.00	\$	35.00	



State of Jennessee

PUBLIC CHAPTER NO. 614

SENATE BILL NO. 1665

By Dickerson, Gresham, Yarbro

Substituted for: House Bill No. 1684

By Smith, Ragan, Daniel, Moody, Hardaway, Terry, Towns

AN ACT to amend Tennessee Code Annotated, Title 49, Chapter 11; Title 49, Chapter 7; Title 49, Chapter 8 and Title 49, Chapter 9, relative to higher education.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. Tennessee Code Annotated, Title 49, Chapter 7, is amended by adding the following language as a new part:

49-7-1601.

This part shall be known and may be cited as the "Tuition Transparency and Accountability Act."

49-7-1602.

As used in this part:

(1) "Board" means the trustees of the University of Tennessee or a state university board, as applicable;

(2) "Cost of attendance" means the combined cost of tuition, mandatory fees, room and board, books, and other educational expenses as determined by the financial aid office of the postsecondary institution;

(3) "Predictive cost estimate" means a non-binding estimated cost of attending an undergraduate program at the postsecondary institution based on a student's chosen field of study over a four-year period. A predictive cost estimate may include, but is not limited to, potential tuition and mandatory fee increases, projected increases in tuition based on a student's chosen field of study, and historical trend data; and

(4) "Tuition and mandatory fees" means the charges imposed to attend the relevant institution of higher education as an in-state undergraduate student and all fees required as a condition of enrollment as determined by the board. "Tuition and mandatory fees" does not include fees charged to out-of-state students by institutions of higher education, room and board, or other non-mandatory fees and charges.

49-7-1603.

(a) At least fifteen (15) days prior to holding a meeting to adopt an increase in tuition and mandatory fees, a board shall give public notice of the proposed tuition and mandatory fee increase as an action item on the board's meeting agenda. Individuals shall be permitted to provide comments during the fifteen-day period. The public notice of the proposed tuition and mandatory fee increase shall, at a minimum, include:

(1) An explanation for the proposed tuition and mandatory fee increase;

(2) A statement specifying the purposes for which revenue derived from the tuition and mandatory fee increase will be used; and

(3) A description of the efforts to mitigate the effect of the tuition and mandatory fee increase on students.

(b)(1) By January 1, 2019, each board shall develop a list of factors that shall be considered when developing recommendations to increase tuition and mandatory fees. The factors shall include, at a minimum, the level of state support; total cost of attendance; and efforts to mitigate the financial effect on students.

(2) Each state university and each campus in the University of Tennessee system shall post on its website a summary of the recommendations pursuant to subdivision (b)(1).

49-7-1604.

By February 1 of each year, each governing board shall provide a report to the office of legislative budget analysis, for distribution to the general assembly, with information regarding expenditures of revenues derived from any tuition and fees increase in the previous full academic year. The report shall include how revenues were used, the effect on student financial aid, and the effect on the average total cost of attendance per student.

49-7-1605.

Beginning August 1, 2019, each state university and each campus in the University of Tennessee system shall provide, with a student's letter of acceptance, a predictive cost estimate for students applying for undergraduate degree programs for the 2020-2021 academic year and for academic years thereafter.

SECTION 2. This act shall take effect July 1, 2018, the public welfare requiring it.

SENATE BILL NO. 1665

PASSED:

March 19, 2018

Vh. RANDY MCNALLY SPEAKER OF THE SENATE

BETH HARWELL, SPEAKER HOUSE OF REPRESENTATIVES

2nd phil APPROVED this 2018 day of

BILL HASLAM, GOVERNOR

State of Tennessee

2018 Public Acts, Chapter 614

T.C.A. § 49-7-1603(b)

(1) By January 1, 2019, each board shall develop a list of factors that shall be considered when developing recommendations to increase tuition and mandatory fees. The factors shall include at a minimum, the level of state support, total cost of attendance, and efforts to mitigate the financial effect on students.

(2) Each state university and each campus in the University of Tennessee system shall post on its website a summary of the recommendations pursuant to subdivision (b)(1)

Mandatory factors:

- 1. Level of state support
- 2. Total cost of attendance
- 3. Efforts to mitigate the financial effect on students

Additional factors to consider:

- 1. THEC mandatory tuition and fee ranges
- 2. Comparison to peer institutions, competitor institutions, other LGIs
- 3. Higher Education Price Index

From: TN Tech News <<u>News@tntech.edu</u>>
Sent: Wednesday, April 23, 2025 2:10 PM
Subject: Explaining the upcoming vote on tuition costs at Tennessee Tech



Explaining the upcoming vote on tuition costs at Tennessee Tech

Students,

As you may know, our Board of Trustees will hold a meeting on Wednesday, April 30 to consider a tuition adjustment for the upcoming year, just like other universities around the state.

The meeting comes after a 15-day comment period, during which students, parents, alumni and community members have shared input that is reviewed by trustees and university leadership.

Here are some fast facts about the tuition conversation:

• The board will vote on a proposed 4.8% undergraduate tuition adjustment, below the maximum tuition increase rate of 6.5% set by the Tennessee Higher Education Commission. This adjustment will cover operating costs and faculty/staff support that directly impact the student experience

- Even with this tuition adjustment, our 2025-2026 flat rate undergraduate tuition costs will remain below the 2024-2025 average tuition cost for Tennessee's public universities.
- No tuition dollars are used for Tech's football stadium, despite recent claims circulating on campus. Money for the stadium comes from fundraising and projected revenues generated by the stadium.
- Earlier this year, the Board of Trustees also voted to support phased-in adjustments to on-campus housing costs over the next five years to better invest in the spaces our students call home.
- We're proud to be a university that invests heavily in our students, including direct scholarships like our Presidential Scholars program. In fact, more than 80% of our students receive some form of institutional, state or federal aid part of the reason that half of our students graduate from Tech debt free.

As our board weighs these upcoming decisions, the university wants to thank each of you who have offered input and assure you that Tennessee Tech takes seriously its responsibility to be a good steward of your tuition dollars and your trust.

You can find more details by visiting the Tuition Transparency page <u>here</u>.

Those interested in following the board's upcoming votes can watch a livestream of the meeting on April 30 beginning at 9:30 a.m. <u>here.</u>

Wings Up!

news@tntech.edu | www.tntech.edu

