



TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: III. D.

MEETING DATE: July 28, 2022

SUBJECT: New Academic Program
University of Tennessee, Martin
Construction Management, Bachelor of Science (BSCM)
CIP Code: 15.1001 (Construction Management)

ITEM TYPE: Action

ACTION RECOMMENDATION: Approval

PROGRAM DESCRIPTION

The University of Tennessee, Martin (UTM) proposes a Construction Management, Bachelor of Science (BSCM). The proposed program requires 120 credit hours and will be offered primarily on-ground. The program is designed to provide a high-quality STEM pathway for students who are interested in engineering and construction related fields without the requirements of a math-intensive curriculum. It will also provide educational opportunities for professionals employed in the construction industry and meet market demand for trained construction managers.

The proposed program includes opportunities for experiential learning by requiring students to complete 10 weeks of full-time internship placements with construction and engineering firms in addition to their classroom learning. The program will seek accreditation by the American Council for Construction Education (ACCE). If approved, it would be the only ACCE accredited Construction Management program in the state of Tennessee.

INSTITUTIONAL GOVERNING BOARD APPROVAL

The proposed Construction Management, BSCM program was approved by the University of Tennessee System Board of Trustees on June 23, 2022.

PROPOSED IMPLEMENTATION DATE

Fall 2022 – UTM is confident that interest from current undergraduate students will enable them to meet year one enrollment projections. Additionally, the first-year curriculum of the Engineering, Bachelor of Science is similar to the proposed program, providing a clear pathway for students to enroll in the proposed Construction Engineering BSCM program.

ALIGNMENT WITH STATE MASTER PLAN AND INSTITUTIONAL MISSION/STRATEGIC PLAN

The proposed program aligns with the Tennessee Higher Education Master Plan by adding a new undergraduate degree program in a STEM field. The proposed program will increase education attainment levels in Tennessee and will address Tennessee's economic and workforce development needs in a growing field.

Graduates of the proposed Construction Management program will enter the workforce as leaders in the construction industry, aligning with UTM’s institutional mission by enabling the university to meet educational needs in their community, and thereby enhancing educational excellence, building vital collaboration with industry partners, and meeting the region’s current and future educational needs. In addition, this program provides students with career opportunities in a technical/STEM field.

CURRICULUM

The proposed curriculum consists of 120 credit hours comprised of 39 credit hours of general education, 55 credit hours of construction core courses, 12 credit hours of business management courses, 9 credit hours of electives, and 5 credit hours of internship and capstone courses. The proposed curriculum requires the development of 14 new courses. One full-time, tenure-track faculty member will be hired to support the new program. Adjunct faculty will be hired to teach courses that require specialized, industry knowledge.

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

- demonstrate the ability to effectively communicate orally and in writing;
- describe effective management practices of personnel, materials, equipment, costs, and time;
- facilitate advancement within the management of construction processes by demonstrating the ability to define problems and recognize solutions;
- demonstrate an ability to apply creativity, teamwork, and evaluation in their work; and
- demonstrate an understanding of professional ethics.

PROGRAM PRODUCTIVITY

The proposed Construction Management, BSCM program anticipates an initial enrollment of 14 students with an enrollment of 59 students by year five. The proposed program projects its first graduates in year three and 15 graduates by year five.

	2022-23	2023-24	2024-25	2025-26	2026-27
Enrollment	14	26	38	49	59
Graduates	--	--	5	10	15

PROGRAM DUPLICATION

Currently, the only similar program at a public institution in Tennessee is the Construction Science and Management, BSCSM at University of Tennessee, Knoxville. Additionally, Middle Tennessee State University offers a Certification in Road Construction Technology and Austin Peay State University, East Tennessee State University, University of Tennessee, Chattanooga, and University of Memphis each offer undergraduate concentrations in related areas. The proposed program will work to obtain the American Council for Construction Education (ACCE) accreditation and, if approved, will be the first in Tennessee to obtain this accreditation.

EXTERNAL JUDGEMENT

An external review of the proposed program was conducted during a virtual site visit on March 31, 2022. Dr. Long D. Nguyen, Program Director of Construction Management and Professor of Civil Engineering and Construction Management at Florida Gulf Coast University, served as the external reviewer. The site visit included meetings with campus administrators, faculty, prospective students, and community partners.

Dr. Nguyen recommended approval of the proposed Construction Management, BSCM program, pointing out that “the BSCM degree program would: (i) address the need of construction management employment from the industry; (ii) increase STEM degrees awarded; (iii) improve graduation metrics (e.g., 4-year graduation rate) though supporting transfer students and students switching major (e.g., from engineering to construction management); (iv) generate more credit hours per faculty by increasing the manageable class sizes of the required interdisciplinary classes (engineering and construction management); and (v) possibly improve the use of the available resources.”

STUDENT DEMAND

The University of Tennessee, Martin surveyed students in both the Department of Engineering and in the School of Agriculture and Engineering. Of the 66 students who responded to a spring 2021 interest survey, 44 percent indicated that they would have selected the construction management program if it was available when they made their major choice. Additionally, 24 percent of respondents indicated strong interest in changing their major to the proposed Construction Management, BSCM.

OPPORTUNITIES FOR PROGRAM GRADUATES

Graduates from the proposed program will be highly competent professionals who are ready for employment as construction managers. Construction management is an in-demand job in Tennessee, as evidenced by Career Explorer’s data which ranks Tennessee as 17th in the nation in demand for construction managers. Additionally, US News ranked construction managers as number one for best construction jobs in 2021.

UTM also surveyed construction industry representatives from the Associated Builders and Contractors, Greater Tennessee; Associated Builders and Contractors, West Tennessee; Associated General Contractors of East Tennessee; and local general contractors in West Tennessee. All nineteen respondents agreed that a Construction Management, BSCM offered by the University of Tennessee, Martin would benefit their company, and that they had a positive opinion of UTM offering the proposed program. About 90 percent of these industry representatives also suggested that students who graduated from the proposed program would be better equipped to enter the construction industry than students with non-construction degrees.

Letters of support for the proposed program were included from a variety of business and industry leaders including Turner Construction; Barger Construction; Searcy Construction; Principal A2H Inc. Engineers, Architects Planners; and the Associated Builders and Contractors of Greater Tennessee.

INSTITUTIONAL CAPACITY TO DELIVER THE PROGRAM

The Construction Management, BSCM will be housed in the Department of Engineering in the College of Engineering and Natural Sciences. Four current faculty in the Department of Engineering will contribute to the proposed program. Several courses currently offered by the Department of Engineering are required in the proposed program and class capacity will expand to accommodate increased student enrollment.

Construction management classes will be offered in the 125,000 square-foot Latimer Engineering and Science Building, which contains all necessary classroom, lab, and faculty office space. Additionally, UTM’s library holdings are sufficient to support the proposed program.

The proposed program will require one full-time, tenure-track faculty member be hired in year two. Adjunct faculty will supplement course loads and teach courses that require specialized knowledge. These adjuncts will be recruited from local construction companies in the west Tennessee region.

ASSESSMENT AND POST-APPROVAL MONITORING

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

FINANCIAL PROJECTIONS

Tennessee Higher Education Commission						
Appendix A: THEC Financial Projections Form						
University of Tennessee Martin						
Bachelor of Science in Construction Management						
<i>Seven-year projections are required for doctoral programs.</i>						
<i>Five-year projections are required for baccalaureate and Master's degree programs</i>						
<i>Three-year projections are required for associate degrees and undergraduate certificates.</i>						
<i>Projections should include cost of living increases per year.</i>						
<i>Planning year projections are not required but should be included when appropriate.</i>						
	Planning Year	Year 1	Year 2	Year 3	Year 4	Year 5
I. Expenditures						
A. One-time Expenditures						
New/Renovated Space ¹	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Library	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Consultants	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
Sub-Total One-time	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000
B. Recurring Expenditures						
Personnel						
Administration						
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Faculty						
Salary	\$ -	\$ -	\$ 85,000	\$ 86,700	\$ 88,434	\$ 90,202
Benefits	\$ -	\$ -	\$ 25,500	\$ 26,010	\$ 26,530	\$ 27,060
Sub-Total Faculty	\$ -	\$ -	\$ 110,500	\$ 112,710	\$ 114,964	\$ 117,262
Support Staff						
Salary	\$ -	\$ -	\$ -	\$ 7,000	\$ 7,500	\$ 7,500
Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Support Staff	\$ -	\$ -	\$ -	\$ 7,000	\$ 7,500	\$ 7,500
Graduate Assistants						
Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tuition and Fees* (See Below)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-Total Graduate Assistants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating						
Travel	\$ -	\$ 2,000	\$ 2,000	\$ 2,200	\$ 2,200	\$ 2,200
Printing	\$ -	\$ 250	\$ 260	\$ 270	\$ 280	\$ 280
Equipment	\$ -	\$ 10,000	\$ 10,300	\$ 10,500	\$ 10,500	\$ 10,500
Other	\$ -	\$ 18,000	\$ 18,300	\$ 18,500	\$ 18,500	\$ 18,500
Sub-Total Operating	\$ -	\$ 30,250	\$ 30,860	\$ 31,470	\$ 31,480	\$ 31,480
Total Recurring	\$ -	\$ 30,250	\$ 141,360	\$ 151,180	\$ 153,944	\$ 156,242
TOTAL EXPENDITURES (A + B)	\$ 2,000	\$ 30,250	\$ 141,360	\$ 151,180	\$ 153,944	\$ 160,242

*If tuition and fees for Graduate Assistants are included, please provide the following information.						
Base Tuition and Fees Rate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Number of Graduate Assistants	-	-	-	-	-	-
	Planning Year	Year 1	Year 2	Year 3	Year 4	Year 5
II. Revenue						
Tuition and Fees ²	\$ -	\$ 108,000	\$ 210,000	\$ 300,000	\$ 390,000	\$ 474,000
Institutional Reallocations ³	\$ 2,000	\$ (77,750)	\$ (68,640)	\$ (148,820)	\$ (236,056)	\$ (313,758)
Federal Grants ⁴	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Private Grants or Gifts ⁵	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other ⁶	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BALANCED BUDGET LINE	\$ 2,000	\$ 30,250	\$ 141,360	\$ 151,180	\$ 153,944	\$ 160,242
Notes:						
(1) Provide the funding source(s) for the new or renovated space.						
NA						
(2) In what year is tuition and fee revenue expected to be generated? Tuition and fees include maintenance fees, out-of-state tuition, and any applicable earmarked fees for the program. Explain any differential fees.						
Year 1						
(3) Identify the source(s) of the institutional reallocations, and grant matching requirements if applicable.						
(4) Provide the source(s) of the Federal Grant including the granting department and CFDA(Catalog of Federal Domestic Assistance) number.						
(5) Provide the name of the organization(s) or individual(s) providing grant(s) or gift(s).						
(6) Provide information regarding other sources of the funding.						