APPROVAL FORM FOR

DEGREE PROGRAMS

MISSISSIPPI STATE UNIVERSITY

NOTE: This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

College: Architecture, Art & Design **Department:** Building Construction Science

Contact Person: George Ford **Mail Stop:** 9635 **E-mail:** gdf53@msstate.edu

Nature of Change: Addition of Distance **Date Initiated:** 12 Feb 24

Current Degree Program Name: None

Current Major: None

Current Concentration(s): Trade Supervision

Current Campus(es): Meridian

New Degree Program Name: Building Technology **Effective Date:** 02/12/20

Semester	Year
Summer	2025

Proposed Major: Bachelor of Applied Science

Proposed Concentration(s): None **Proposed Campus(es):** Distance

Summary of Proposed Changes:

The Bachelor of Applied Science in Building Technology will replace the BAS Trades Supen

Approved:	Date:
Syed M. Ahmed	03/01/2024
Department Head	
	3/4/24
Director of Academic Quality	
	3/11/24
Chair, College or School Curriculum Committee	
	4-12-24
Dean of College or School	
Chair, University Committee on Courses and Curricula	
Chair, Graduate Council (if applicable)	
Chair, Deans Council	

NEW DEGREE OUTLINE FORM

Use the chart below to indicate your new degree outline. If any General Education (Core) course is acceptable in the category, please indicate by saying "any Gen Ed course". There is no need to type in the whole list. Expand rows as needed.

PROPOSED New Degree	
Degree: Bachelor of Applied Science **Major:** Construction Technology **Concentration:**	
The Bachelor of Applied Science in Construction Technology is designed for students who wish to enhance their skills in the management of building construction processes. The Construction Technology program is designed to prepare students for advancement within the construction management field by teaching successful graduates a wide range of marketable skills for effectively managing a construction project's function, schedule, scope, cost, safety, and quality from the project's beginning to its conclusion. Students must possess an accredited Associate of Applied Science (AAS) in Construction, Electrical, HVAC, Welding, or other construction related AAS majors. This program will be offered in an online delivery mode to make it more accessible to working professionals.	
Proposed Curriculum Outline	**Required Hours**
English (General Education): EN 1103 English Composition I EN 1113 English Composition II	**6**
Creative Discovery (General Education): Any course satisfying Creative Discovery	**3**
Natural Sciences: (2 labs required from Gen Ed): Any 2 courses satisfying Natural Sciences	6
Quantitative Reasoning (General Education): MA 1323 Trigonometry (or higher)	**3**
Humanities (General Education): Any 2 courses that satisfy the Humanities requirement.	**6**
Social/Behavioral Sciences (General Education): Any 2 courses that satisfy the Social/Behavioral Sciences requirement.	**6**
Subtotal	**30**

PROPOSED New Degree	
Degree: Bachelor of Applied Science **Major:** Construction Technology **Concentration:**	
Major Core Courses: PCS 2111 Introduction to the Bachelor of Applied Science BCT 3413 Graphic Construction Communication BCT 3423 Construction Materials BCT 3433 Introduction to Estimating BCT 3443 Construction Safety and Health BCT 3453 Construction Technology BCT 4413 Introduction to Scheduling BCT 4423 Building Utility (MEP) Systems BCT 4433 Building Structural Systems BCT 4443 Project Management BCT 4453 Construction Legalities PCS 4112 Professional Success Strategies in Applied Fields	**33**
University Electives: CO 1003 Fundamentals of Public Speaking (or CO 1013 Intro to Communication) MGT 3213 Organizational Communication or PCS 3003 Workplace Communication and Collaboration for Professionals MGT 3113 Principles of Management or PCS 3103 Professional Leadership Strategies MGT 3513 Introduction to Human Resource Management or PCS 4003 Personnel Management for the Public Sector	**12**
Technical Courses in Discipline (*Technical content transfers in from the associate degree in a building construction-related area such as Building Construction Management, Carpentry Technology, Electrical Technology, Plumbing & Construction Technology, or Welding Technology. It is expected that students have coursework that prepares them for applications in the supervision of construction environment. Students, who have earned an AAS degree, would be expected to have competency and knowledge in:* • *reading basic drawings, blueprints, and plans used in construction project environments,* • *estimating, handling, storing, monitoring, materials, safety, leadership, and organization of construction projects,* • *identifying, analyzing, and solving technical problems, and working as part of a technical team for small, medium, and large-scale construction projects.*	**45**
Subtotal	**90**
Total Hours	**120**

MISSISSIPPI STATE UNIVERSITY™
DEPARTMENT OF BUILDING CONSTRUCTION SCIENCE

Bachelor of Applied Science in Construction Technology

Program Level Outcomes and Course Assessment Map

The Building Construction Science Program is accredited by the American Council for Construction Education (ACCE). The program level outcomes have been created in alignment with the ACCE Standards and Criteria and are listed below with each of the courses mapped to a program level outcomes.

Program Level Outcome 1: Students will demonstrate an integrated understanding of the interdisciplinary nature of applied sciences, effectively synthesizing concepts from construction technology, business management, and public sector personnel management to address real-world challenges.
1) PCS 2111 Introduction to the Bachelor of Applied Sciences – LO1, LO4 2) BCT 3453 Construction Technology – LO1, LO4 3) BCT 4443 Project Management – LO1, LO2 4) PCS 4112 Professional Success Strategies in Applied Fields – LO1, LO4, LO5
Program Level Outcome 2: Students will exhibit mastery in the application of construction methods, materials, safety protocols, and technology, as reflected by their ability to estimate costs, manage schedules, and oversee building utility and structural systems in accordance with industry standards.
1) BCT 3423 Construction Materials – LO2 2) BCT 3433 Introduction to Estimating – LO1, LO2 3) BCT 3453 Construction Technology – LO2, LO3, LO5 4) BCT 4413 Introduction to Scheduling – LO1, LO2, LO4 5) BCT 4423 Building Utility (MEP) Systems – LO1, LO2 6) BCT 4433 Building Structural Systems – LO1, LO2, LO3
Program Level Outcome 3: Students will ill possess the leadership and management skills necessary to successfully navigate complex organizational structures, influence decision-making processes, and manage personnel, especially in the contexts of construction and the public sector.
1) BCT 4443 Project Management – LO1, LO3 2) BCT 4453 Construction Legalities – LO3 3) BCT 4413 Introduction to Scheduling – LO1, LO2, LO3, LO4
Program Level Outcome 4: Students will have a nuanced understanding of the legal and ethical dimensions of their fields, making informed decisions that adhere to applicable laws, regulations, and industry ethical standards.
1) BCT 4443 Project Management – LO4 2) BCT 4453 Construction Legalities – LO4
Program Level Outcome 5: Graduates will demonstrate effective communication skills, both written and verbal, in technical and non-technical environments. They will also display professionalism and adaptability, essential for career advancement and lifelong learning.
1) BCT 3413 Graphic Construction Communication – LO1, LO5 2) BCT 3443 Construction Safety and Health – LO2, LO5 3) BCT 4413 Introduction to Scheduling – LO3, LO5 4) PCS 4112 Professional Success Strategies in Applied Fields – LO1, LO2, LO3, LO5

MISSISSIPPI STATE UNIVERSITY™
BACHELOR OF APPLIED SCIENCE

BAS in Construction Technology

Labor Market Analysis

Updated October 2023

Mississippi Community College AAS graduates (2019)

- This information only pertains to students enrolled in the AAS degrees that would point to the BAS-TS major.
- https://public.tableau.com/app/profile/r.fletes/viz/Graduates_3/AwardsbyDegreeType
- All 15 Mississippi Community colleges have programs in construction or construction-related areas.
- 686 AAS graduates in construction or construction-related areas in 2019.

Out-of-State AAS Graduates

Community College	AAS Enrollment, Related Fields
Bevill State Community College (AL)	220
Calhoun Community College (AL)	921
Coastal Alabama Community College (AL)	253
Delgado Community College (LA)	92
Ivy Tech Community College (IN)	1596
Louisiana Delta Community College (LA)	26
Moore Tech (TN)	32
Northshore Technical Community College (LA)	65
Northwest-Shoals Community College (AL)	44
Shelton State Community College (AL)	403
OUT OF STATE TOTAL	**3,652**
MS TOTAL	**686**
GRAND TOTAL	**4,348**

Labor Market Research

According to the U.S. Bureau of Labor Statistics (BLS), the median annual wage for construction and building inspectors in Mississippi was $54,750 as of May 2020. However, individuals with a Bachelor of Applied Science in Construction Technology can earn significantly more, as they are qualified for higher-level management positions. The table below shows the median salaries of various construction-related occupations in Mississippi, as reported by the BLS. The data clearly indicates that having a Bachelor of Applied Science in Construction Technology can lead to higher earnings compared to those with a high school diploma or an associate degree.

Occupation	Median Annual Salary (May 2020 - MS)
Construction Manager (Site Supervisor, Team Lead, Project Director)	$73,760
Cost Estimator	$60,320
Construction and Building Inspectors	$47,740
First-Line Supervisors of Construction Trades and Extraction Workers	$60,320

Moreover, the construction industry is expected to experience growth in Mississippi in the coming years. The Mississippi Department of Employment Security projects that the number of construction jobs in the state will increase by 7.8% between 2020 and 2028, adding approximately 3,860 new jobs. The chart below shows the projected employment growth rate for construction and extraction occupations in Mississippi, as reported by *Projections Central.*

Assuming that the new Construction Technology program attracts an average of 30 students per year and that 70% of those students graduate within five years, we can estimate that the program will produce 105 new graduates over the next five years. Given the high demand for skilled construction workers in Mississippi, it is reasonable to assume that the vast majority of these graduates will find employment in the state.

According to the BLS, the average annual salary for construction supervisors in Mississippi is $73,760. If we assume that half of the new graduates find employment in supervisory or managerial roles with an average salary of $70,000 per year, and the other half find employment as construction inspectors or project estimators with an average salary of $55,000 per year, the new program could generate a total of approximately $4.6 million in additional income for the Mississippi economy over the next five years.

Looking further out to ten years, assuming that the program continues to attract an average of 30 students per year, and that 70% of those students graduate within 5 years, the program could produce a total of 210 new graduates over 10 years. Based on the same assumptions as above, the program could generate a total of approximately $9.2 million in additional income for the Mississippi economy over the next ten years.

It's worth noting that these estimates are rough and depend on many assumptions. However, they give a rough idea of the potential economic impact of a new Construction Technology program on the Mississippi economy. Additionally, these estimates do not consider the potential long-term economic benefits of having a more skilled and educated workforce in the state.

In conclusion, the data clearly shows that having a Bachelor of Applied Science in Construction Technology can lead to higher earnings compared to those with a high school diploma or an associate's degree. Additionally, the construction industry in Mississippi is projected to experience growth in the coming years, which will create a significant demand for skilled construction workers and supervisors. Graduates of a Construction Technology program will be well-positioned to fill these jobs and contribute to the state's economy.

References

DataUSA: Construction. (2023). DataUSA. https://datausa.io/profile/cip/construction-46

Long-Term Occupational Projections (2020-2030). (2023). Projections Central. https://projectionscentral.org/Projections/LongTerm

*O*NET OnLine*. (2023). National Center for O*NET Development. https://www.onetonline.org/

NEW ACADEMIC DEGREE PROGRAM PROPOSAL

Institutional Request Form – Appendix 8
(Submit in PDF format with signatures.)

Institution:	Mississippi State University
Date of anticipated implementation:	August 2025
Program title as it will appear on Academic Program Inventory, Diploma, and Transcript:	Construction Technology
Name of degree(s) to be awarded:	Bachelor of Applied Science
Six-digit CIP code:	15.024
Total credit-hour requirement to earn the degree:	120
Responsible academic unit:	Department of Building Construction Science
Institutional contact:	Syed Ahmed, Department Head, 662.325.8305,
Phone:	
Email:	syed.ahmed@msstate.edu
SACSCOC Substantive Change:	☒ Program proposed **IS NOT** a substantive change. ☐ Program proposed **IS** a substantive change.
Incremental, five-year cost of implementation:	$545,776
Incremental, five-year per student cost of implementation:	$4,873
Potential five-year, new revenue:	$2,085,440
Potential new, five-year revenue per student:	$18,620
Will it attract new students to the university?	☒ Yes ☐ No
List any institutions within the State offering similar programs:	1—USM offers a BS in Construction Management, but it is not comparable with the BAS in its use of applied science transfer credits.

Number of students expected to enroll in first 5 years:		Number of students expected to graduate in first 5 years:	
Year 1	15	Year 1	0
Year 2	18	Year 2	0
Year 3	22	Year 3	12
Year 4	26	Year 4	14
Year 5	31	Year 5	17
Total	112	Total	43

Program summary (include second majors completed, if applicable):

The Bachelor of Applied Science in Construction Technology is specifically designed for students who wish to enhance their skills in the management of building construction processes. The Construction Technology program is designed to prepare students for advancement within the construction management field by teaching successful graduates a wide range of marketable skills for effectively managing a construction project's function, schedule, scope, cost, safety, and quality from the project's beginning to its conclusion. Students must possess an accredited Associate of Applied Science (AAS) in Construction Management, Electrical, HVAC, Welding, or other construction related AAS majors. This program will be offered in an online delivery mode to make it more accessible to working professionals.

The audit of recently approved academic programs ensures that the program outcomes are congruent with the Board-approved proposal. Please respond to the questions on the following pages to aid the institution and IHL staff in making recommendations to the IHL Board of Trustees.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL

Institutional Request Form – Appendix 8
(Submit in PDF format with signatures.)

Chief Academic Officer Signature – Date	Institutional Executive Officer Signature – Date

New Academic Degree Program Questions:	
1	Describe how the degree program will be administered including the name and title of person(s) who will be responsible for curriculum development and ongoing program review.
	The Bachelor of Applied Science in Construction Technology will be administered through a Program Director, department head, and faculty in the Building Construction Science Department in coordination with the Dean of the College of Architecture, Art, & Design and in collaboration with the College of Professional and Continuing Studies. Specific responsibility for the design and review of the curriculum will be the purview of the Program Director and faculty. Degree and course additions, modifications, and deletions are subject to approval by the larger faculty (University Course and Curriculum Committee).
2	Describe the educational objectives of the degree program including the specific objectives of any concentrations, emphases, options, specializations, tracks, etc.
	The Bachelor of Applied Science in Construction Technology is designed for students who wish to enhance their skills in the management of building construction processes. The Construction Technology program is designed to prepare students for advancement within the construction management field by teaching successful graduates a wide range of marketable skills for effectively managing a construction project's function, schedule, scope, cost, safety, and quality from the project's beginning to its conclusion. To be accepted into the program, students must possess an accredited Associate of Applied Science (AAS) in Construction Management, Electrical, HVAC, Welding, or other construction related AAS majors. -Students will develop a comprehensive understanding of interdisciplinary approaches to problem-solving, enabling them to apply relevant theories and models across various organizational settings. -Students will acquire practical leadership and management skills, including the ability to execute strategic initiatives, manage personnel, and adapt to evolving digital landscapes. -Students will demonstrate proficiency in verbal and written communication, as well as the ability to collaborate effectively in diverse teams, particularly in professional and virtual environments. -Students will be prepared for continuous professional growth, leveraging skills in workplace communication, collaboration, and leadership strategies to succeed in applied fields and contribute positively to their organizations and communities. -Students will gain the skills to collect, analyze, and interpret data for informed decision-making, with an emphasis on practical applications in various organizational contexts.

3	Describe any special admission requirements for the degree program including any articulation agreements that have been negotiated or planned.
	Students applying for admission to the program must have an AAS degree in a construction-related discipline and a cumulative GPA of at least 2.00 at the time of admission. While students from any qualifying institution are welcome, MSU has partnership agreements with all community colleges within the state of Mississippi, as well as others in the states of Alabama, Louisiana, Tennessee, Texas, and Indiana at the time of the submission of this proposal. This partnership for the Bachelor of Applied Science program signifies that the administration, faculty, and counselors from these institutions are committed to communicating with students the availability of the BAS majors at MSU as well as ensuring the transfer process is seamless.
4	Describe the professional accreditation that will be sought for this degree program. If a SACSCOC visit for substantive change will be necessary, please note.
	There is no professional accreditation associated with this degree. The new degree program also does not represent a substantive change according to SACSCOC guidelines.
5	Describe the curriculum for this degree program including the recommended course of study (appending course descriptions for all courses) and any special requirements such as clinical, field experience, community service, internships, practicum, a thesis, etc.
	The overall curriculum for this degree program consists of the university core curriculum (30 hours), major coursework in construction technology (30 hours), university writing and oral communication course (3 hours), management-related courses (9 hours), professional and career services courses (3 hours), and up to 45 hours credit for work in the technical discipline associated with the student's AAS degree for a total 120 hours required for student to complete in the BAS in Construction Technology program. UNIVERSITY CORE CURRICULUM – 30 HOURS English (General Education) – 6 HOURS EN 1103 English Composition I EN 1113 English Composition II Creative Discovery (General Education) – 3 HOURS Any course satisfying Creative Discovery Natural Sciences – 6 HOURS Any 2 courses with labs satisfying Natural Sciences Quantitative Reasoning (General Education) – 3 HOURS MA 1323 Trigonometry (or higher) Humanities (General Education) – 6 HOURS Any 2 courses that satisfy the Humanities requirement. Social/Behavioral Sciences (General Education) – 6 HOURS Any 2 courses that satisfy the Social/Behavioral Sciences requirement. MAJOR CORE COURSES – 33 HOURS PCS 2111 Introduction to the Bachelor of Applied Science

BCT 3413 Graphic Construction Communication
BCT 3423 Construction Materials
BCT 3433 Introduction to Estimating
BCT 3443 Construction Safety and Health
BCT 3453 Construction Technology
BCT 4413 Introduction to Scheduling
BCT 4423 Building Utility (MEP) Systems
BCT 4433 Building Structural Systems
BCT 4443 Project Management
BCT 4453 Construction Legalities
PCS 4112 Professional Success Strategies in Applied Fields

UNIVERSITY ELECTIVES – 12 HOURS
CO 1003 Fundamentals of Public Speaking (or CO 1013 Intro to Communication)
MGT 3213 Organizational Communication or PCS 3003 Workplace Comm. & Collaboration for Professionals
MGT 3113 Principles of Management or PCS 3103 Professional Leadership Strategies
MGT 3513 Introduction to Human Resources Management or PCS 4003 Personnel Management for the Public Sector

TECHNICAL COURSES – 45 HOURS
TOTAL HOURS – 120 HOURS

6	Describe the faculty who will deliver this degree program including the members' names, ranks, disciplines, current workloads, and specific courses they will teach within the program. If it will be necessary to add faculty in order to begin the program, give the desired qualifications of the persons to be added.

The below required courses will continue to be delivered primarily by existing faculty or approved adjunct faculty in the Building Construction Science Department in the College of Architecture, Art and Design:

- BCT 3413 Graphic Construction Communication
- BCT 3423 Construction Materials and Methods
- BCT 3433 Introduction to Estimating
- BCT 3443 Construction Safety and Health
- BCT 3453 Construction Technology
- BCT 4413 Introduction to Scheduling
- BCT 4423 Building Utility (MEP) Systems
- BCT 4433 Building Structural Systems
- BCT 4443 Project Management
- BCT 4453 Construction Legalities

The below required courses will be taught by approved faculty in the College of Professional and Continuing Studies:
- PCS 2111 Introduction to the Bachelor of Applied Science
- PCS 3003 Workplace Communication and Collaboration for Professionals
- PCS 3103 Professional Leadership Strategies
- PCS 4003 Personnel Management for the Public Sector
- PCS 4112 Professional Success Strategies in Applied Fields

An approved faculty member from the Department of Management and Information Systems in the College of Business will teach:

- MGT 3113 Principles of Management
- MGT 3213 Organizational Communication
- MGT 3513 Introduction to Human Resource Management

7	Describe the library holdings relevant to the proposed program, noting strengths and weaknesses. If there are guidelines for the discipline, do current holdings meet or exceed standards?
	The Mississippi State Library has adequate holdings for the proposed program. The following databases and more from the Mississippi State Library are relevant to the BAS in Construction Technology program: • Academic Search Premier • CloudSource+ and CloudSourceOA that search multiple databases, journal publishers, index open access scholarly journal articles, open textbooks, and open education resources • eBooks from EBSCO • ERIC • Over 2.3 million volumes (MSU Library's online catalog); Over 11,000 print volumes in the local collections at MSU Meridian • 200,000 electronic journals in an extraordinary range of subjects and full-text content • Access to electronic journals sufficient to meet the needs of baccalaureate studies. • Discipline-based research guides aligned to applied science majors • Access to virtual training opportunities through the library's MaxxSouth Digital Media Center (DMC) (ex.: Excel, Adobe InDesign, CAD, and other technology) online. • ILL and document delivery services for obtaining materials not owned by MSU Libraries.
8	Describe the procedures for evaluation of the program and its effectiveness in the first five years of the program, including admission and retention rates, program outcome assessments, placement of graduates, changes in job market need/demand, ex-student/graduate surveys, or other procedures.
	Multiple methods will be used to evaluate student learning and program effectiveness: • Student learning will be assessed through course assessments (exams, quizzes, homework, and projects). • The Office of Institutional Effectiveness at MSU conducts exit surveys of graduates and tracks admission, retention, graduation, and graduate placement rates that will be used to evaluate the program's effectiveness. • The Center for Distance Education utilizes a variety of measures to assess student learning that will also be used to help evaluate the program's effectiveness. • The success of the program will be determined by the number of adult learner students who enroll in the degree program versus the number of students that successfully complete the degree during the initial five-year period of the degree program with data provided by the Office of Institutional Effectiveness and Research at MSU.
9	What is the specific basis for determining the number of graduates expected in the first five years?

We expect to incrementally enroll students in the BAS-CT program over a five-year period. All students admitted to the BAS in BCT program will be accepted to the program with a completed 60-credit hour Associate of Applied Science (AAS) degree from an accredited community college. Since it typically takes transfer students at least two years to complete the remaining 60 credit hours of this degree program, we expect to have graduates starting in the third year. The design of this BAS in Construction Technology is unique and the only one in the State of Mississippi, although the name is similar to one within the state. Moreover, in the nearby states of Alabama, Arkansas, and Louisiana few such degrees exist that will prepare students for administrative and leadership careers in the construction sector.

In Fall 2022, we conducted a needs assessment survey with a 70% response rate to determine institutional interest in providing a vertical alignment to their in-demand AAS degrees. The survey aimed to determine interest in the creation of various BAS majors, and we are pleased to report that there was significant interest in the Construction Technology major. All responding colleges expressed interest in a BAS degree that provides students with a comprehensive and deeper understanding of the complexities of leadership and supervision in the field of construction. These results confirmed the demand for this program and motivated us to develop a relevant BAS major that meets the needs of our partners and the state of Mississippi. This was echoed by requests from the Associated Builders and Contractors and Mississippi Construction Education Foundation to start this program. We also expect larger companies in the state like Ingalls to promote this program due to their workforce needs.

10

Using expected enrollment, provide the total anticipated budget for the program including implementation and 4 subsequent years (total of 5 years) of operation; any anticipated direct, indirect, and incremental costs necessary to start the program; anticipated, incremental annual revenue based on student enrollment; and other sources of funding.

Please explain what has been included in the costs and revenues.

Start-Up Costs: one-time costs associated with offering this program
Start-Up costs include marketing and recruitment activities and materials.

Direct, Incremental Costs: additional annual costs to the university as a result of offering this program
Beginning Year 1, a part-time coordinator will be hired to help with advising of the new program.

Incremental Revenue: additional annual revenue assuming that this program will bring in new students paying full tuition
Revenue is projected based on total enrollment times the cost of tuition for the online education student enrolled full-time (12 hours) for fall/spring semesters. This does not include summer terms.

Non-Tuition Revenue: external funds, grants, contracts or other revenues attributable to the addition of this program

Differential: all revenues minus all costs

Year	Incoming Students	Total Enrollment	Start-Up Costs	A Additional Annual Costs	B Additional Annual Revenue	C Non-Tuition Revenue	(B+C)-A Differential
2023-24	15	15	$15,000.00	$20,000.00	$153,990.00	$0.00	$133,990.00

2024-25	3	18	$0.00	$20,000.00	$184,778.00	$0.00	$164,778.00
2025-26	4	22	$0.00	$20,000.00	$225,882.00	$0.00	$205882.00
2026-27	4	26	$0.00	$20,000.00	$266,916.00	$0.00	$266,916.00
2027-28	6	32	$0.00	$20,000.00	$328,512.00	$0.00	$308,512.00
TOTAL	32	112	$15,000.00	$100,000.00	$1,149,792.00	$0.00	$1,049,792.00

11 Program Demand: Select one or both of the following to address student demand:

☒ Survey of Student Interest

Number of surveys administered:	25
Number of completed surveys returned:	17
Percentage of students interested in program:	70%

Include a brief statement that provides additional information to explain the survey.
The group distributed an interest survey to community colleges that had an existing Bachelor of Applied Science partnership MOU with Mississippi State.

☒ Market Analysis or Evidence of Labor Market Need

Given the target audience of our Bachelor of Applied Science (BAS) program, which consists primarily of employed adult learners, we made the decision to survey our partner schools instead of students. This was influenced by the understanding that students in the program may have a lower response rate due to their work commitments. Additionally, the success of the program for transfer students depends on the strength of our partnerships with community colleges. In fall 2022, we conducted a needs assessment survey with a 70% response rate to determine institutional interest in providing a vertical alignment to their in-demand AAS degrees. The survey aimed to determine interest in the creation of various BAS majors, and we are pleased to report that there was significant interest in a major that met the needs of those seeking paths to management in the Construction sector. All responding colleges expressed interest in a BAS degree that provides students with a comprehensive understanding of current office management technologies and their practical application in the modern business environment. These results confirmed the demand for this program and motivated us to develop a relevant BAS major that meets the needs of our partners and the state of Mississippi and the region.

12 Employment Opportunities for Graduates (state, region, nation):

According to the U.S. Bureau of Labor Statistics (BLS), the median annual wage for construction and building inspectors in Mississippi was $54,750 as of May 2020. However, individuals with a Bachelor of Applied Science in Construction Technology can earn significantly more, as they are qualified for higher-level management positions.

The table below shows the median salaries of various construction-related occupations in Mississippi, as reported by the BLS. The data clearly indicates that having a Bachelor of Applied Science in Construction Technology can lead to higher earnings compared to those with a high school diploma or an associate degree.

Moreover, the construction industry is expected to experience growth in Mississippi in the coming years. The Mississippi Department of Employment Security projects that the number of construction jobs in the state will increase by 7.8% between 2020 and 2028, adding approximately 3,860 new jobs. The chart below shows the projected employment growth rate for construction and extraction occupations in Mississippi, as reported by Projections Central.

According to the BLS, the average annual salary for construction supervisors in Mississippi is $73,760. If we assume that half of the new graduates find employment in supervisory or managerial roles with an average salary of $70,000 per year, and the other half find employment as construction inspectors or project estimators with an average salary of $55,000 per year, the new program could generate a total of approximately $4.6 million in additional income for the Mississippi economy over the next five years.

Looking further out to ten years, assuming that the program continues to attract an average of 30 students per year, and that 70% of those students graduate within 5 years, the program could produce a total of 210 new graduates over 10 years. Based on the same assumptions as above, the program could generate a total of approximately $9.2 million in additional income for the Mississippi economy over the next ten years.

The data clearly shows that having a Bachelor of Applied Science in Construction Technology can lead to higher earnings compared to those with a high school diploma or an associate's degree. Additionally, the construction industry in Mississippi is projected to experience growth in the coming years, which will create a significant demand for skilled construction workers and supervisors. Graduates of a Construction Technology program will be well-positioned to fill these jobs and contribute to the state's economy.

Table 1 below summarizes the employment projections for the positions of Construction Managers, Cost Estimators, Construction and Building Inspectors, and First-Line Supervisors of Construction Trades and Extraction Workers in Mississippi, the Southern region, and the nation from 2021-2031.

Table 1: Employment Projections for Construction Technology-Related Positions

Job Title	MS	Region	United States
Construction Manager	1,900	31,250	448,000
Cost Estimator	1,340	9,520	200,600
Construction and Building Inspector	700	4,520	125,600
First-Line Supervisors, of Construction Workers	6,620	55,190	735,300

DataUSA: Construction. (2023). DataUSA. https://datausa.io/profile/cip/construction-46

Long-Term Occupational Projections (2020-2030). (2023). Projections Central. https://projectionscentral.org/Projections/LongTerm

O*NET OnLine. (2023). National Center for O*NET Development.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL

Institutional Request Form – Appendix 8

(Submit in PDF format with signatures.)

https://www.onetonline.org/

MISSISSIPPI STATE UNIVERSITY

COLLEGE OF ARCHITECTURE, ART & DESIGN
DEPARTMENT OF BUILDING CONSTRUCTION SCIENCE

P.O. Box 6222
132 Howell Building | 823 Collegeview St.
Mississippi State, MS 39762

P. 662.325.8305
www.caad.msstate.edu

February 5, 2024

To: University Committee on Courses and Curricula

RE: Creation of New Building Technology Bachelor of Applied Science Major

The Building Construction Science Curriculum Committee is in support of the creation of a new Building Technology Bachelor of Applied Science program.

George Ford, Chair

Saeed Rokooei, Voting Member

Michele Herrman, Voting Member

Afshin Hatami, Voting Member

Mohsen Garshasby, Voting Member

Mahdi Ghafoori, Voting Member

Please let us know if there are any questions or concerns.

Sincerely,

Dr George Ford

Professor, BCS Curriculum Committee Chair

MISSISSIPPI STATE UNIVERSITY™
COLLEGE OF PROFESSIONAL AND CONTINUING STUDIES

January 28, 2024

To: University Committee on Courses and Curricula

RE: Support Letter for New Bachelor of Applied Science Program in Construction Technology

The College of Professional and Continuing Studies supports the inclusion of the following courses in the proposed Bachelor of Applied Science in Construction Technology program curriculum:

PCS 2111 Introduction to the Bachelor of Applied Science
PCS 4112 Professional Success Strategies in Applied Fields

Sincerely,

Susan D. Seal

Susan D Seal

Dean
College of Professional and Continuing Studies

Ford, George

From: Marler, Laura
Sent: Thursday, February 8, 2024 4:32 PM
To: Ford, George
Cc: Marler, Laura
Subject: RE: Support for new BAS in Construction Technology
Attachments: CT support letter-mgt_FEB 2024.docx

Sure. Please see attached. I did not mean to slow the process further. Sometimes e-mail approval counts as a letter.

I truly appreciate your patience on this. Having been COB curriculum chair, I know the difficulties involved.

Best of luck with your program.

Take care,

Laura

Dr. Laura E. Marler
Head, Department of Management & Information Systems
Jim and Pat Coggin Endowed Professor of Management
Family Business Education Initiative Director
McCool Hall, 302-I
Mississippi State, MS 39762
662.325.1957 (office)
662.325.3928 (department)

From: Ford, George <gford@caad.msstate.edu>
Sent: Thursday, February 8, 2024 4:22 PM
To: Marler, Laura <lmarler@business.msstate.edu>
Cc: Ahmed, Syed Mahmood <sahmed@caad.msstate.edu>; Owen, Sean <sean.owen@msstate.edu>
Subject: RE: Support for new BAS in Construction Technology

Laura,
Will you write us a letter of support for MGT 3113? We have a couple alternatives for the other courses. If we wait, we may not have time to get the program approval before summer 2025.
George

Sent from Mail for Windows

From: Marler, Laura <lmarler@business.msstate.edu>
Sent: Thursday, February 8, 2024 4:01:52 PM
To: Ford, George <gford@caad.msstate.edu>
Subject: RE: Support for new BAS in Construction Technology

Dear George,

MISSISSIPPI STATE UNIVERSITY™

COLLEGE OF ARCHITECTURE, ART & DESIGN
DEPARTMENT OF BUILDING CONSTRUCTION SCIENCE

P.O. Box 6222
132 Howell Building | 823 Collegeview St.
Mississippi State, MS 39762

P. 662.325.8305
www caad msstate.edu

February 8, 2024

To: University Committee on Courses and Curricula

RE: Support Letter for New Bachelor of Applied Science Program in Construction Technology

The Department of Management and Information Systems supports the inclusion of the following courses as electives in the proposed Bachelor of Applied Science in Construction Technology program curriculum:

MGT 3113 Principles of Management or PCS 3103 Professional Leadership Strategies

Dr. Laura Marler
Department Head
Management and Information Systems
Mississippi State University
Mississippi State, MS 39759

MISSISSIPPI STATE UNIVERSITY

College of Arts & Sciences
Department of Communication

P.O. Box PF
216 President's Circle
Mississippi State, MS 39762

P. 662.325.3320
F. 662.325.3210
www.comm.msstate.edu

February 6, 2023

Dear Curriculum Committees:

The curriculum committee of the Department of Communication has met and approved the inclusion of CO 1003 Fundamentals of Public Speaking (or CO 1013 Introduction to Communication) for the new degree: Bachelor of Applied Science in Program in Construction Technology.

Faculty Member	Approve	Faculty Member	Approve
Wendy Roussin, MFA *Associate Professor & Chair*	X	Jesse Wade, MFA *Assistant Clinical Professor*	X
Kevin William, PhD *Associate Professor*	X	Amy Knight, MA *Instructor II*	X
Holli Seitz, PhD *Associate Professor*	X	Josh Foreman, MFA *Instructor*	X
Heesook Choi, PhD *Assistant Professor*	X		