New Program Proposal

The following must be submitted to complete a new program request:

Submission Checklist:

☒ New Program Proposal
☐ Business Plan (https://www.ache.edu/index.php/forms/)
☐ Undergraduate or Graduate Curriculum Plan (https://www.ache.edu/index.php/forms/)

Primary Contact Information

Institution: Auburn University
Contact: Dr. Mark DeGoti
Title: SACSCOC Liaison
Email: markdegoti@auburn.edu
Telephone: 334-844-6847

Program Information

Date of Proposal Submission: 9/1/2025
Award Level: Master's Degree
Award Nomenclature (e.g., BS, MBA): M.S.
Field of Study/Program Title: Biological and Agricultural Technology Management (BATM)
CIP Code (6-digit): 01.0106

Administration of the Program

Name of Dean: Dr. Arthur Appel
Name of College/School: College of Agriculture
Name of Chairperson: Dr. Oladiran Fasina
Name of Department/Division: Department of Biosystems Engineering

Implementation Information

Proposed Program Implementation Date: 5/15/2026
Anticipated Date of Approval from Institutional Governing Board: 9/12/2025
Anticipated Date of ACHE Meeting to Vote on Proposal: 12/12/2025
SACSCOC Sub Change Requirement (Notification, Approval, or NA): N/A
Other Considerations for Timing and Approval (e.g., upcoming SACSCOC review):

New Program Proposal

I. Program Description

A. Concise Program Summary (one paragraph) to be included in ACHE Agenda:

Produce graduates through research and graduate level coursework content that apply technology in combination with management and applied sciences principles to solve real-world problems in agricultural and biological systems.

B. Specific Rationale (Strengths) for the Program

List three (3) to five (5) strengths of the proposed program as specific rationale for recommending approval of this proposal.

1. Graduates with Master of Science BATM degree will contribute to the workforce in Alabama and the nation to develop, manage, adapt, and use technologies and sensors in agricultural, forestry, and manufacturing industries.
2. While some peer land-grant universities in the Midwest, Northeast and West offer programs similar to the proposed BATM M.S. major, their graduates focus mostly on the needs of industries in those regions (e.g. forestry and poultry industries are not major industries in these regions as compared to Alabama). There are no equivalent programs in Alabama, Arkansas, Georgia, Kentucky, and Louisiana.
3. Since program graduates possess transferable skills, they can secure employment as test technicians, operations managers, and manufacturing technology specialist in other industries such as food and meat processing, poultry integrator, automotive, chemical and manufacturing industries/companies.

C. External Support (Recommended)

List external entities (more may be added) that may have supplied letters of support attesting to the program's strengths and attach letters with the proposal at the end of this document.

1. SunSouth LLC
2. Great Southern Wood Preserving, Inc.
3. Alabama Farmers Federation
4. Greenpoint Ag Holdings, LLC
5. Hog Slat Inc.

D. Student Learning Outcomes

List four (4) to seven (7) of the student learning outcomes of the program.

1. Analyze and implement solutions to complex technological problems in agricultural and biological systems by selecting and applying appropriate subject knowledge, tools, and techniques (SLO 1).
2. Apply technological methods to at least one real-world applications in agricultural and biological systems (SLO 2).
3. Communicate research findings to technical and non-technical audiences through oral and written communication (SLO 3).
4. Conduct independent scientific research experiments that is of significance in biological and agricultural technology management profession (SLO 4).

E. Similar Programs at Other Alabama Public Institutions

List programs at other Alabama public institutions of the same degree level and the same (or similar) CIP codes. If no similar programs exist within Alabama, list similar programs offered within the 16 SREB states. If the proposed program duplicates, closely resembles, or is similar to any other offerings in the state, provide justification for any potential duplication.

CIP Code	Degree Title	Institution with Similar Program	Justification for Duplication
01.0106	M.S. Engineering Technology*	Mississippi State	Not a duplication in Alabama
01.0301	M.S. Agricultural Operations Management	University of Florida	Not a duplication in Alabama
01.9999	M.S. Agriculture Systems Management	Clemson University	Not a duplication in Alabama

*Note that this program is offered by a peer department at Mississippi State University although the name is slightly different the focus of the proposed program and that at Mississippi State are similar

The proposed program is not replacing existing programs and will not duplicate other programs in the state. The BSEN department is the only unit in the state that offers programs at the interface of agriculture/forestry and engineering/technology. Owing to this, collaboration with other institutions in the delivery of the proposed program will likely not occur. However, the BSEN discipline and the faculty have historically collaborated with colleagues in other units regarding interdisciplinary research, instructional, and extension/outreach activities.

F. Relationship to Existing Programs within the Institution

Nearly all new programs have some relationship to existing offerings through shared courses, faculty, facilities, etc. Is the proposed program associated with any existing offerings within the institution, including options within current degree programs? **Yes** ☒ **No** ☐

If ***yes***, please describe these relationships including whether or not the program will replace or compete with existing offerings: (***Note:*** If this is a graduate program, list any existing undergraduate programs which are directly or indirectly related. If this is a doctoral program, also list related master's programs.)

There is an existing undergraduate BATM degree program offered by the same department – Department of Biosystems Engineering at Auburn University. This undergraduate program was started in 2019. Six (6) of the students (total of 17) that graduated since the start of the bachelors BATM major (last three years) have pursued graduate degrees in other disciplines at Auburn University or have pursued graduate degrees in similar BATM majors at other institution. These graduates expressed that they would have preferred to continue their graduate training in BATM with the Auburn Biosystems Engineering (BSEN)department. Also, there are students that received their bachelor's degree in agricultural and forestry undergraduate programs from Auburn and other institutions that have expressed interest in the proposed BATM M.S. degree program.

There are five (5) graduate level BATM courses that BSEN faculty routinely teach. Depending on the interest of the students in the program, students may take additional graduate courses offered in the College of Agriculture. There may also be need for students to take additional graduate courses offered by other colleges.

If ***not***, please describe how the institution plans to support a program unrelated to existing offerings.

G. Collaboration

Have any collaborations **within your institution** (i.e., research centers, across academic divisions, etc.) been explored? **Yes** ☒ **No** ☐

If ***yes***, provide a brief explanation of the proposed collaboration plan(s) for the program:

Since its existence in 1919, the biosystems engineering department at Auburn University has been engaged and continue to engage in interdisciplinary research, instructional and outreach activities at the university and with colleagues in United States and internationally. The department is the only department at Auburn University that has reporting lines to both the College of Agriculture and Samuel Ginn College of Engineering. The graduate students in the proposed program will be advised by the faculty members that have are trained to and have experience in interdisciplinary collaboration with colleagues in these two colleges and other colleges (e.g. Forestry). As part of graduate education training, the graduate students in the proposed program will enroll in graduate level courses in other agricultural sciences departments and other related disciplines at Auburn University.

Have collaborations with **other institutions or external entities** (i.e., local business, industries, etc.) been explored? **Yes** ☒ **No** ☐

If ***yes***, provide a brief explanation of the proposed collaboration plan(s) for the program:

Several of the projects that the biosystems engineering faculty members with expertise in developing technologies and in applying these technologies to agricultural and biological systems are sponsored by the private sector such as commodity boards (e.g. Cotton Inc., Alabama Cotton Commission, Alabama Peanut Producers Association, Alabama Wheat and Feed Grain Producers Association, Alabama Soybean Producers Association, National Peanut Board), state agencies (ADEM, Alabama Department of Agriculture and Industries), poultry and related companies/entities (e.g Tyson, Aviagen, Cobb, U.S. Poultry and Egg Association), and ag production equipment/companies (e.g. Bayer CropScience, Agrasyst Inc., BASF, OCP, John Deere, Kubota, CAT, Progress Rail).

H. Programmatic Accreditation

Select the appropriate program accreditor from the drop-down menu below:

N/A

Provide a detailed timeline for gaining accreditation (i.e., when will full candidacy be reached?):

N/A

I. Professional Licensure

Will the program be considered a Professional Licensure Program based on the following definition: **Yes ☐ No ☒**

Professional Licensure Program: As defined in federal regulations, an instructional program that is designed to meet educational requirements for a specific professional license or certification that is required for employment in an occupation or is advertised as meeting such requirements.

If ***yes***, please explain:

Select the appropriate licensure body from the table below:

Choose an item.

Select the appropriate license from the table below:

Choose an item.

J. Professional Certification

Will students earn industry certifications while completing the degree or be prepared for industry certifications upon graduation? **Yes ☐ No ☒**

If ***yes***, please explain:

K. Admissions

Provide any additional admissions requirements beyond the institution's standard admissions process/policies for this degree level. Include prerequisites, prior degrees earned, etc.

Admission to the BATM M.S. program requires a B.S. degree in Agricultural Technology management or an equivalent undergraduate program. The list of institutions with equivalent undergraduate program can be found here. Students who do not have an undergraduate Agricultural Technology Management degree or equivalent most complete equivalent requirements for undergraduate courses through articulation – see list of courses below.

Biological Sciences and Lab: minimum of 4 semester credit hours
Chemistry and Lab: minimum of 4 semester credit hours
General Physics: minimum of 4 semester credit hours
Calculus 1: minimum of 4 semester credit hours

L. Mode of Delivery

Provide the planned delivery format(s) of the program as defined in policy (i.e., in-person, online, hybrid). Please also note whether any program requirements can be completed through competency-based assessment.

In-person

Can students complete the entire degree program through distance education (100% online) based on the following definition? **Yes ☐ No ☒**

Distance Education: An academic program for which required instructional activities can be completed entirely through distance education modalities. A distance education program may have in-person requirements that are non-instructional (e.g., orientation, practicum).

M. Instructional Site(s)

Provide the planned location(s) where the program will be delivered (i.e., main campus, satellite campus, off-campus site.) If the program will be offered at an off-campus site, provide the existing site name or submit an ***Off-Campus Site Request*** if new.

Auburn University Main Campus

Will more than 50% of this program be offered at an off-campus site(s) **Yes ☐ No ☒**

If ***yes***, which sites?

N. Industry Need

Using the federal **Standard Occupational Code (SOC) System**, indicate the top three occupational codes related to post-graduation employment from the program. A full list of SOCs can be found at https://www.onetcodeconnector.org/find/family/title#17.

SOC 1 (**required**): 17.3029.00
SOC 2 (optional): 19.4012.00
SOC 3 (optional): 14.4011.00

Briefly describe how the program fulfills a specific industry or employment need for the State of Alabama. As appropriate, discuss alignment with Alabama's Statewide or Regional Lists of In-Demand Occupations (https://www.ache.edu/index.php/policy-guidance/) or with emerging industries as identified by Innovate Alabama or the Economic Development Partnership of Alabama (EDPA).

Emerging/Existing Industries – Agriculture/Forestry/Forest Products. Use of technologies and sensors in agricultural, forestry and related industries is increasing in Alabama and across the Southeast. These industries play a vital role in providing Alabamians with high quality food, feed, fiber, and water, while also significantly impacting Alabama's economy. According the GROWALABAMA.ORG flyer produced

by EDPA, the agricultural and forestry industries contribute annually $77.3 billion to Alabama's economy and create 10% of Alabama's workforce (equivalent to 273,271 jobs). The projected increase in world population to more than 9.7 billion by 2050 will require the efficient and effective use of technologies in these industries especially because associated with this increase in world population is a 50% increase in food production even though there will not be changes in land and water resources. In addition, development and use of technologies, and managing these technologies will be important in the next few decades because the society will have an increasingly larger percentage of aging population. According to the National academies, technology will be important to positively impact the living environments and routine life activities of older adults including their safety and security.

Because of the technical skills that graduates of the program will acquire with regards to technology use and data interpretation that is coupled with business/management/accounting knowledge, they are able to secure employment in other industries such as automotive, manufacturing, chemical, and aerospace industries. In Alabama, there are four automotive manufacturing plants that produce nearly one (1) million vehicles every year, 200+ automotive suppliers and 300+ aerospace suppliers. In addition, Alabama ranks third (3rd) nationally in export dollars for motor vehicles. Other occupations (based on ACHE in-demand occupations) that the graduates can secure employment include Sales Representatives – Technical and Scientific Products (41-4011), Management Analysts (13-1111), and Industrial Production Manager (11-3051).

O. Additional Education/Training

Please explain whether further education/training is required for graduates of the proposed program to gain entry-level employment in the SOC occupations selected above.

No additional training required

P. Student Demand

Please explain how you projected the student enrollment numbers in the **Business Plan, Lines 24-27** and provide evidence to substantiate student demand (i.e., surveys, enrollments in related courses, etc.).

According to the Occupational Outlook Handbook of the Bureau of Labor Statistics (www.bls.gov), precision ag technicians (coded as part of Life and Physical Sciences Technician) is projected to grow 6-7% in the next ten years. The Alabama Department of Labor projects that the number of jobs in Alabama related to engineering and technology is estimated to rise from 29,380 in 2020 to 33,250 in 2030 (www2.labor.alabama.gov). Also, graduates of this proposed BATM M.S. program will be hired into management level positions. According to the Occupational Outlook Handbook of the Bureau of Labor Statistics, there were 838,140 openings for Management Analyst in the nation and about 4,000 similar positions in Alabama in 2023. Need for the management analysts is expected to increase by 11% over the next 10 years. There are other job opportunities for this emerging discipline for professionals that can use, manage, and apply technologies needed in ag and forestry systems, and every indication (workforce labor issues, need for increase in food production with less available resource) reinforces the need for this proposed program.

II. Program Resources and Expenses

A. All Proposed Program Personnel

Provide all personnel counts for the proposed program.

Employment Status of Program Personnel		Personnel Information		
		Count from Proposed Program Department	Count from Other Departments	Subtotal of Personnel
Current	Full-Time Faculty	8	0	8
	Part-Time Faculty			
	Administration	1	0	1
	Support Staff	4	0	4
**New To Be Hired	Full-Time Faculty	0	0	0
	Part-Time Faculty	0	0	0
	Administration	0	0	0
	Support Staff	0	0	0
		Personnel Total		13

Provide justification that the institution has proposed a sufficient number of faculty (full-time and part-time) for the proposed program to ensure curriculum and program quality, integrity, and review:

The BSEN department does not anticipate need for additional resources to support this program. There are at least 6 tenured/tenure-track faculty members (including the 4 faculty members hired by the BSEN department in the last 3 years) that will recruit graduate students into this program. The research expertise of these faculty members (Batchelor, Davis Jeremiah, Linhoss John, Rehman, Sangha, and Virk Simer) lie at the interface of engineering and technology for agriculture and forestry systems, and are currently advising graduate students that are enrolled in other agriculture graduate programs because of the absence of this proposed program. Also, two BSEN Lecturers with training in agricultural technology will be involved in delivering course materials to the students. There are many more potential graduate students that could have been working with these faculty members, but these students chose to find alternative programs outside of Alabama. Therefore, students recruited into this proposed program will be with faculty that have established research labs and research programs.

Note: Include ***any new funds*** designated for compensation costs (faculty, administration, and/or support staff to be hired) in the **Business Plan, Line 7 - Personnel Salaries and Benefits**. Current personnel salary/benefits ***should not be included*** in the Business Plan.

B. Proposed Faculty Roster*

Complete the following **Faculty Roster** to provide a brief summary and qualifications of current faculty and potential new hires specific to the program.

***Note**: Institutions must maintain and have current as well as additional faculty curriculum vitae available upon ACHE request for as long as the program is active, but CVs are **not** to be submitted with this proposal.

Current Faculty			
1	**2**	**3**	**4**
CURRENT FACULTY NAME (FT, PT)	**COURSES TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)**	**ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed**	**OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)**
Davis, Jeremiah	Research Extension in Poultry Housing Technology	PhD, Agricultural Engineering, Iowa State University	IP
Batchelor, William	BATM 6110: Agri-Industrial Electrical Applications (3 ch)	PhD Agricultural Engineering, University of Florida	IP
Virk, Simer	Research Extension in Precision Agriculture	PhD, Agricultural and Biological Engineering, University of Georgia	IP
Sangha, Harman	BSEN 3610: Instrumentation for Biosystems (3 ch) BATM 5150: Drone Technologies in Agricultural & Biological Systems (3 ch)	PhD, Agricultural and Biosystems Engineering, Iowa State University	IP
Linhoss, John	BATM 6140: Commercial Poultry & Livestock Housing	PhD, Agricultural Engineering Technology, Mississippi State University	IP
Rehman, Tanzeel	BATM 6120 Agri-Industrial Electronics and Controls (3 ch)	PhD, Agricultural and Biological Engineering, Purdue University	IP
Virk, Gurpreet	BATM 6130: Precision Ag Technology (3 ch) BATM 3510 Agricultural Power & Machinery Fundamentals (3 ch)	PhD, Crop and Soil Sciences, University of Georgia	IP
Handa, Divya	BATM 2110: Digital Analytics in Agriculture and Technology BSEN 6240: Bulk Biological Solids Behavior, Modeling and Processing (3 ch)	PhD, Agricultural and Biosystems Engineering, Iowa State University	IP

Additional Faculty (To Be Hired)			
1	**2**	**3**	**4**
FACULTY POSITION (FT, PT)	**COURSES TO BE TAUGHT including Term, Course Number, Course Title, & Credit Hours (D, UN, UT, G, DU)**	**ACADEMIC DEGREES and COURSEWORK Relevant to Courses Taught, including Institution and Major; List Specific Graduate Coursework, if needed**	**OTHER QUALIFICATIONS and COMMENTS Related to Courses Taught and Modality(ies) (IP, OL, HY, OCIS)**

Abbreviations: (FT, PT): Full-Time, Part-Time; (D, UN, UT, G, DU): Developmental, Undergraduate Nontransferable, Undergraduate Transferable, Graduate, Dual: High School Dual Enrollment
Course Modality: (IP, OL, HY, OCIS): In-Person, Online, Hybrid, Off-Campus Instructional Site

C. Equipment

Will any special equipment be needed specifically for this program? **Yes ☐ No ☒**

If ***yes***, list the special equipment and include all special equipment costs in the ***Business Plan, Line 8***:

D. Facilities

Will new facilities or renovations to existing infrastructure be required specifically for the program? **Yes ☐ No ☒**

If ***yes***, describe the new facilities or renovations and include all *new* facilities and/or *renovation* costs in the ***Business Plan, Line 9***:

E. Assistantships/Fellowships

Will the institution offer any assistantships specifically for this program? **Yes ☒ No ☐**

If ***yes***, provide the number of assistantships to be offered and include all *new* costs for assistantships in the ***Business Plan, Line 10.***

Explain the function of the Assistantships (i.e., teaching, research, etc.)?:

The assistantships will be research assistantships and will be stipend for each student to be able to conduct research as part of the earning the M.S. degree. This assistantship will be offered by participating faculty in the biosystems engineering department through extramural grants. In particular, because of the focus of the six (6) tenured/tenure-track faculty members in developing technologies and in applying these technologies to agricultural and biological systems, they have been successful in securing industry grants and grants from state agencies that support their research and extension programs. Examples of where these industry grants were secured from include commodity boards (e.g. Cotton Inc., Alabama Cotton Commission, Alabama Peanut Producers Association, Alabama Wheat and Feed Grain Producers Association, Alabama Soybean Producers Association, National Peanut Board), state agencies (ADEM, Alabama Department of Agriculture and Industries), poultry and related companies/entities (e.g Tyson, Aviagen, Cobb, U.S. Poultry and Egg Association, and ag production companies (e.g. Bayer CropScience, Agrasyst Inc., BASF, OCP, John Deere, Kubota, CAT, Progress Rail),). We are confident that all the graduates from this proposed program in the next 7 years can be supported by grants from industry/commodity boards/state agencies.

F. Library

Will any **additional** library resources be purchased to support the program? **Yes ☐ No ☒**

If ***yes***, briefly describe new resources to be purchased and include the cost of new library resources in the ***Business Plan, Line 11***:

G. Accreditation Expenses

If programmatic accreditation was indicated above, please include all accreditation costs in the ***Business Plan, Line 12*** and itemize and explain below:

N/A

H. Other Costs

Please include all other costs incurred with program implementation, such as marketing or recruitment, in the ***Business Plan, Line 13*** and explain below:

N/A

III. Program Revenue and Funding

A. Tuition Revenue: Please describe how you calculated the tuition revenue that appears in the ***Business Plan, Line 17***. Specifically, did you calculate using cost per credit hour or per term? Did you factor in differences between resident and non-resident tuition rates?
Note: Tuition Revenue should be proportional to total enrollment.

N/A

B. External Funding: Will the proposed program require external funding (*e.g.*, Perkins, Foundation, Federal Grants, Sponsored Research, etc.)? **Yes ☒ No ☐**

If ***yes***, please include all external funding in the ***Business Plan, Line 18*** and explain specific sources and funding below:

The faculty members that the students will enroll with have been successful in securing grants from private and public sectors. Since 2021, the total amount of grants secured was $4.2 million. Therefore, the expectation is that the total amount of grant dollars secured by these faculty will continue to be at $1 million per year in support of these programs for the foreseeable future.

C. Reallocations: For each year will tuition revenue and/or external funding cover projected expenses? **Yes ☒ No ☐**

If ***not***, budget reallocation may be required. Please include all reallocations in the ***Business Plan, Line 19*** and describe below how your institution will cover any shortfalls in any given year.

1	**ACADEMIC DEGREE PROGRAM BUSINESS PLAN**								
2	**INSTITUTION:**	**Auburn University**							
3	**PROGRAM NAME:**	**Biological and Agricultural Technology Management**						**CIP CODE:**	**1.0106**
4	**SELECT LEVEL:**	**GRADUATE (MASTER'S)**							
5	**ESTIMATED *NEW* EXPENSES TO IMPLEMENT PROPOSED PROGRAM**								
6		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**TOTAL**
7	PERSONNEL SALARIES & BENEFITS								$0
8	EQUIPMENT								$0
9	FACILITIES								$0
10	ASSISTANTSHIPS/FELLOWSHIPS								$0
11	LIBRARY								$0
12	ACCREDITATION								$0
13	OTHER COSTS								$0
14	**TOTAL EXPENSES**	$0	$0	$0	$0	$0	$0	$0	**$0**
15	***NEW* REVENUES AVAILABLE FOR PROGRAM SUPPORT**								
16		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**TOTAL**
17	TUITION + FEES								$0
18	EXTERNAL FUNDING	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$1,400,000
19	REALLOCATIONS								$0
20	**TOTAL REVENUES**	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	**$1,400,000**
21	**ENROLLMENT PROJECTIONS**								
22									
23		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**AVERAGE**
24	FULL-TIME ENROLLMENT HEADCOUNT	**No data reporting**	4	6	6	6	6	6	**5.67**
25	PART-TIME ENROLLMENT HEADCOUNT								**0.00**
26	**TOTAL ENROLLMENT HEADCOUNT**		4	6	6	6	6	6	**5.67**
27	***NEW* ENROLLMENT HEADCOUNT**		4	6	5	4	4	4	**4.50**
28	**Validation of Enrollment**			**YES**	**YES**	**YES**	**YES**	**YES**	
29	**DEGREE COMPLETION PROJECTIONS**								
30	***Note: Do not count Lead "0"s and Lead 0 years in computing the average annual degree completions.***								
31		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**AVERAGE**
32	**DEGREE COMPLETION PROJECTIONS**	**No data reporting**	4	4	4	4	4	4	**4.00**

Graduate Curriculum Overview

Graduate Curriculum Checklist:

1. Overview ☑
2. Components ☑
3. Options (as required) ☑

1. Graduate Overview

Enter the credit hour value for all applicable components (N/A if not applicable). The credit hours MUST match the credit hours in the Curriculum Components table.

Curriculum Overview of Proposed Program	
Credit hours required in **Program Courses**	4
Credit hours in **Program Options (concentrations/specializations/tracks)**	0
Credit hours in **Program Electives**	20
Credit hours in **Required Thesis/Research**	6
Credit hours in **Required Capstone/Internship/Practicum**	
Total Credit Hours Required for Completion:	

Maximum number of credits that can be transferred in from another institution and applied to the program:	0
Intended program duration in semesters for full-time students:	4
Intended program duration in semesters for part-time students:	10

	YES	NO
Does the program require students to demonstrate industry-validated skills, specifically through an embedded industry-recognized certification, structured work-based learning with an enployer partner, or alignment with nationally recognized industry standards?	☐	☑

If **yes**, please explain (i.e., number of hours required, etc.):

	YES	NO
Does the program inlcude any concentrations/ tracks/ options?	☐	☑

If **yes**, please explain (i.e., define):

2. Graduate Components

Please provide all course information as indicated in the following table. Indicate new courses with "Y" in the associated column. If the course includes a required work-based learning component, such as an internship or practicum course, please indicate with a "Y" in the WBL column.

Insert Additional Rows as Needed				
Institution:	Auburn University			
Program Name:	Biological and Agricultural Technology Management			
Program Level:	GRADUATE (MASTER'S)			
Curriculum Components of Proposed Program				
Course Number	**Course Name**	**Credit Hours**	**New? (Y)**	**WBL? (Y)**
Program Courses				
BATM 6120	Agri-Industrial Electronics and Controls	3		
BSEN 7950	Seminar	1		
Program Options (enter total credit hours from all options below)				
Program Electives				
	Select 6 credits of other BATM courses (@6000-8999)	6		
	Select 3 credits of Statistics (@6000-8999)	3		
	Select 6 credits of other Agriculture graduate courses	6		
	Select 5 credits of other courses (@6000-8999)	5		
Required Thesis/Research				
BSEN 7990	Research and Thesis	6		
Capstone/Internship/Practicum				
	Total Credit Hours Required for Completion:	**30**		

SunSouth, LLC Board Office
P.O. Box 69
106 West Washington St., Suite E
Abbeville, AL 36310

August 18, 2025

Dr. Jim Purcell
Executive Director
Alabama Commission for Higher Education

Letter of Support for Auburn University M.S. BATM degree

Through this letter, SunSouth, LLC is offering our support to the Master of Science in Biological and Agricultural Technology Management degree program that is being proposed by the Department of Biosystems Engineering at Auburn University. SunSouth, LLC has been in discussion since April 2022 with the biosystems engineering department about the urgent need for professionals who are trained and have the expertise to understand, use and manage the increasing complex technologies that are now part of production agricultural equipment, implements and machineries. I should mention that SunSouth, LLC is a premier retailer of John Deere products. With over twenty years of experience, the company sells and repairs agricultural and consumer equipment and irrigation products in four Southern states – Alabama, Florida, Georgia and Mississippi.

The projected increase in world population to more than 9.7 billion by 2050 is now requiring the efficient and effective use of technologies in production agriculture especially because associated with this increase in world population is a projected 50% increase in food production but with no changes in land and water resources. Therefore, finding talents with the technical skills in technology use and data interpretation that is coupled with business/management/accounting and also finding talents that understand ag and forestry systems has been a challenge for our company and similar companies like ours. Addressing the technology management needs of the ag and forestry sectors will be important to the future of agricultural equipment and machinery industries especially with regards to addressing workforce labor issues, increasing food production with less available resource, and managing the complexities of the modern production agriculture equipment and machines while improving production efficiencies. The proposed degree program will be instrumental in fulfilling this important need in our industry and for stakeholders/client base.

Sincerely,

Lester H. Killebrew
Chairman of the Board

GREAT SOUTHERN WOOD PRESERVING INC. ™

August 21, 2025

Dr. Jim Purcell
Executive Director
Alabama Commission for Higher Education
P. O. Box 302000
Montgomery, Alabama 36130-2000

RE: Letter of Support for Auburn University M.S. BATM degree

Dear Dr. Purcell:

Through this letter, Great Southern Wood Preserving, Incorporated, and its subsidiaries, is offering our support to the Master of Science in Biological and Agricultural Technology Management degree program that is being proposed by the Department of Biosystems Engineering at Auburn University. Our company has been collaborating with Auburn University over the last two years on a project to develop and implement new technologies in ag and forestry systems to enhance the economic prosperity of rural Alabama. We have quickly identified through this collaboration that there is urgent need for professionals who are trained and have the expertise to understand, use and manage the increasing complexity in technologies that are now part of equipment and machineries for wood products manufacturing.

Great Southern Wood Preserving, Incorporated, and its subsidiaries, is one of the nation's leading producers of pressure treated lumber products. The company, based in Abbeville, Alabama, is best known as the maker of the YellaWood® brand pressured treated pine. Through our 16 facilities with distribution coverage in 27 states, our company provides products to Do-It-Yourself retail home centers, pro dealers, and other retail building-related and industrial segments.

Finding talented professionals with the technical skills in technology use and data interpretation, coupled with business/management/accounting and a basic understanding of wood products industry, has been a challenge for our company and companies like ours. Addressing the technology management needs will be important to the future of forestry and wood products industries in Alabama especially with regards to addressing workforce labor issues and increasing food production with fewer available resources, as well as managing the complexities of the modern forestry and wood products materials handling equipment and machines, all while improving processing efficiencies. The proposed degree program will be instrumental in fulfilling this important need in our industry and for stakeholders/client base.

Thank you for your consideration.

Sincerely,

James Rane Jr.
Vice President of Manufacturing

PO Box 610 Abbeville, Alabama 36310 334.585.2291
www.yellawood.com

JIMMY PARNELL
PRESIDENT

August 19, 2025

Dr. Jim Purcell
Executive Director
Alabama Commission for Higher Education
100 North Union Street
Montgomery, AL 36104

Dear Dr. Purcell:

On behalf of the Alabama Farmers Federation (ALFA), Alabama's largest farm organization, we are pleased to write this letter of support for the proposed Master of Science in Biological and Agricultural Technology Management degree program being developed by the Department of Biosystems Engineering at Auburn University.

We recognize the need for professionals who are trained to manage and apply the increasingly complex technologies involved in modern agriculture. Over the past several years, ALFA has engaged in discussions with leadership at Auburn University College of Agriculture about this growing workforce gap. The integration of advanced equipment, data systems, and automation into farming operations has created a demand for graduates who not only understand agricultural systems but also possess strong technical, business, and management skills.

The proposed master's program addresses this need by preparing students to bridge the gap between technology and practical application in the field. This includes managing precision agriculture tools, analyzing data to support decision-making, and optimizing production efficiency all while adapting to labor shortages and limited natural resources.

The program's interdisciplinary approach blending biological and agricultural sciences with technology and management will provide essential training for the next generation of professionals who will support Alabama's farmers and the broader agricultural industry.

We are confident that this degree program will contribute meaningfully to the success and sustainability of agriculture in Alabama and fully support its approval.

Sincerely,

Jimmy Parnell

8/14/2025

Dr. Jim Purcell
Executive Director
Alabama Commission for Higher Education

Letter of Support for Auburn University M.S. BATM degree

Through this letter, Greenpoint Ag Holdings, LLC is offering our support to the Master of Science in Biological and Agricultural Technology Management degree program that is being proposed by the Department of Biosystems Engineering at Auburn University. The mission of Greenpoint Ag is to help growers succeed in an ever-changing world. We are driven by serving our growers beyond product sales and among our list of service offerings we provide to growers is Precision Ag Technology. In fact, Greenpoint Ag is the leader in ag technology for Southeastern farms. We work with farmers to better deliver results using technology and of course we make regular investments in new technology and training to keep our farmer customers on the front-edge of advancements in production agriculture.

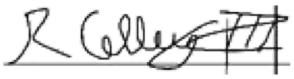
With two decades of experience in the ag technology sector, we are familiar with challenges facing growers and solutions to address them. There is the urgent need for professionals who are trained and have the expertise to become the trusted technology advisor to Southeastern farmers. These professionals need to have a technical and applied understanding of equipment, soil fertility, sustainability practices, sensor technology and other agronomic field practices involving technology. We have in the past few years hired several of the graduates from the biosystems engineering department at Auburn University but often times there are positions that we are not able to fill. Therefore, finding talent with the technical skills in technology use and data interpretation that is coupled with business/management/accounting and also understanding production systems has been challenging for Greenpoint Ag. Furthermore, the projected increase in world population to more than 9.7 billion by 2050 is now requiring the efficient and effective use of technologies in agricultural industries especially because associated

with this increase in world population is a projected 50% increase in food production with no changes in land and water resources.

In order to secure local talent necessary to serve our growers at the highest level, we strongly urge you to support this request and implementation of this new degree. The proposed degree program will be instrumental in fulfilling this important need in our industry and for stakeholders/client base and will be vital to the future of agriculture especially with regards to addressing workforce labor issues, increasing food production with less available resources, and managing the complexities of modern agriculture equipment and machines while improving production efficiencies.

Thank you,

Daniel Mullenix
Sr. Director Advanced Services & Operations
GreenPoint Ag Holdings, LLC.
Auburn University – M.S. 2011 (Civil Engineering), B.S. 2008 (Biosystems Engineering)



Trey Colley
Sr. Manager Lead – Agronomy and Ag Technology
GreenPoint Ag Holdings, LLC
Auburn University – B.S. 2016 (Biosystems Engineering)

08/14/2025

Dr. Jim Purcell
Executive Director
Alabama Commission for Higher Education

Letter of Support for Auburn University M.S. BATM degree

Through this letter, Hog Slat Inc. is offering our support to the Master of Science in Biological and Agricultural Technology Management degree program that is being proposed by the Department of Biosystems Engineering at Auburn University. Hog Slat Inc. is a family-owned business that is engaged in many aspects of hog and poultry production such as turnkey construction of modern confinement type hog and poultry production units, manufacture and distribution of hog and poultry production equipment, and the production of live hogs. Hog Slat is the largest construction contractor and manufacturer of hog production equipment in the United States. We also sell equipment packages to family-owned farms and large corporate farm entities that choose to construct their own facilities both domestically and internationally.

With our fifty years of experience in the manufacturing of hog and poultry production equipment, there is the urgent need for professionals who are trained and have the expertise to understand, use and manage the increasing complexity in technologies that are now part of the equipment and machineries in ag production. Often times, we and other entities like us are not able to fill positions and find talents that have the technical skills in technology use and data interpretation that is coupled with business/management/accounting and also understand production systems. Furthermore, the projected increase in world population to more than 9.7 billion by 2050 is now requiring the efficient and effective use of technologies in agricultural industries especially because associated with this increase in world population is a projected 50% increase in food production but with no changes in land and water resources.

The proposed degree program will be instrumental in fulfilling this important need in our industry and for stakeholders/client base and will be important to the future of agriculture especially with regards to addressing workforce labor issues, increasing food production with less available resource, and managing the complexities of the modern agriculture equipment and machines while improving production efficiencies.

Sincerely,

James T. Karsnitz Jr.

Jim Karsnitz
Integrator/University relations specialist
Hog Slats, Georgia Poultry Equipment
410-251-1687
jkarsnitz@hogslat.com