Writing in the Majors Plan for
Biological and Agricultural Technology Management
Comments from the University Writing Committee
August 31, 2017

Criterion	Comments, Questions, Suggestions
Principles 1 & 2: Provides opportunities for students to practice the kinds of communication (oral and written) most useful to the major	You have clearly identified a range of genres and your proposed writing-specific outcomes include oral and written communication. We notice that the first two of these outcomes could be framed in terms of following disciplinary conventions and common standards for reasonably correct prose. We wonder if you might want to include outcomes that are more closely related to higher order thinking skills (as in your fourth outcome) or to reflect an expectation that students be able to move between audiences and genres to demonstrate a range of communicative abilities. Since you are already using ePortfolios and indicate that you will continue to do so with this new major, we think you are well positioned to see a range of communication acts in these final ePortfolios.
Principle 3: Provides opportunities for students to communicate to different purposes and audiences	You have clearly identified different audiences and we assume that you will be able to scaffold opportunities to practice when you map your curriculum.
Principle 4: Provides feedback and opportunities for revision	Given the way you have structured your other majors, we feel confident that you understand the importance of feedback and opportunities to revise. As you work on the next stage of your writing plan, please remember to consider revision and how appropriate feedback will be given across the curriculum.
Principle 5: Has an assessment process directed towards continuous improvement	We believe the outcomes will give you a way to incorporate assessment into your existing program assessment and look forward to seeing how you decide to do that in your subsequent submissions.
Other comments:	We appreciate your efforts to try the new approach to designing a writing plan built on writing-specific outcomes. If this major is approved so that you can begin offering courses in Fall 2018, we agree that a more detailed writing plan should be submitted by that time.

Plan is approved Submit your next installment as described by September 1, 2018

Writing Plan for the Proposed
Biological and Agricultural Technology Management (BATM) Major
Department of Biosystems Engineering
August 9, 2017

Background

The goal of the proposed Biological and Agricultural Technology Management (BATM) major is to produce graduates that have the ability to apply science and technology to develop solutions to challenges faced by farmers, are able to manage the increasingly complex agricultural systems and solutions for the 21st century, and are in general practical problem-solvers. The proposed BATM major will be a new program in the College of Agriculture and administered by the Department of Biosystems Engineering (BSEN).

The BSEN department will begin the process of getting approvals for the new BATM major through the various curriculum committees on campus and eventually by the Alabama Commission for Higher Education (ACHE). The goal is to start the major (and students start to take courses) in Fall of 2018. If approved, we will implement the programs for at least 5 years before we investigate the possibility of pursuing accreditation of the BATM program through one of the following two organizations that accredit Technology programs – ABET (Accreditation Board for Engineering and Technology) or ATMAE (Association of Technology, Management, and Applied Engineering).

The BSEN department has been contributing to the land-grant mission of Auburn University since 1919 by engaging in instructional, research, and outreach activities, and developing solutions to challenges, knowledge and technology at the interface of engineering, agriculture, and forestry that ultimately improve the quality of life for Alabama's citizens.

Examples of places that graduates from this major will be employed include major equipment manufacturers (e.g. Caterpillar, John Deere, AGCO), seed and grain companies (Monsanto, ADM), government agencies (USDA-NRCS, Peace Corps), food processing companies (Pepsi-Cola, Frito-Lay, Cargill), poultry integrators and meat processing companies (Tyson Foods, Pilgrim's Pride, Zeigler, Sara Lee), emerging biofuels companies (DuPont, Iogen, POET), and agricultural services companies.

The curriculum (see Appendix) for the proposed BATM major require that we create six new BATM courses and hire a new faculty (search underway). Our tentative plan is to focus the writing plan on five of the BATM courses taken by the students during the junior and senior years. The proposed writing plan was developed by the four faculty members (Jeremiah Davis, Jon Davis, Oladiran Fasina, Timothy McDonald) teaching these five courses.

Commitment to Writing and Instruction

The Department of Biosystems Engineering has been proactive in promoting student learning (including writing and e-Portoflio) and providing a high-quality student-centered environment for students. In the last three years, the department was the recipient of two major instructional-related awards at Auburn University (Senate Teaching Excellence Award in 2015, and the e-Portfolio Cohort Award in 2017). BATM graduates will find jobs in places where they have to teach people about technology, product use and value. The ability to communicate will therefore be a crucial skill for these graduates.

Several of the approaches that we currently use to embed writing in the three Biosystems engineering undergraduate curriculum options will also be embedded in the proposed BATM major

curriculum (e.g memos, journals, laboratory reports, capstone project reports, e-Portfolios, oral presentations, poster presentations, and presentation to a variety of audiences such as course instructors, project clients, professionals attending professional association meetings, prospective employers, etc.). In the meanwhile, the departmental faculty have created the following writing-related outcomes for the proposed BATM major. At the time of graduation, students in the proposed BATM major will be able to demonstrate the following writing-related outcomes:

1. Students will be able to create documents that are free of or have little grammar, spelling and punctuation errors.
2. Students will be able to reference and cite information from all sources, and these information should support discussions in reports and other writing forms.
3. Students will be competent in the use technology and appropriate visual aids to support textual explanation of information and concepts.
4. Students will be able to synthesize and present data from various sources and derive conclusions in relation to the discipline of BATM.
5. Students will demonstrate the ability to deliver formal presentations before a variety of live audiences.

Next Step

After the ACHE's approval of the BATM major, we will collectively create a curriculum map that shows where these outcomes will be introduced, practiced, and mastered. We will work collectively through a small working committee of faculty that teach the required BATM courses (see table below) to ensure that components of these outcomes build upon each other and reinforce critical skills. We anticipate that we will begin offering the major in Fall of 2018. If this is the case, we will submit a detailed writing plan by Fall of 2018.

Required BATM courses and Faculty

Course	Faculty
BATM 1110 Introduction to Design in Technology	*Precision Ag Faculty**
BATM 2110 Solving Technology Problems	*Jon Davis*
BATM 3500 Natural Resource Systems Conservation	Jon Davis
BATM 3510 Ag Power and Machinery Fundamentals	Precision Ag Faculty*
BATM 5110 Agri-Industrial Electrical Applications	*Jeremiah Davis*
BATM 5120 Agri-Industrial Electronics and Controls	*Timothy McDonald*
BATM 3530 Ag. Production and Process Facility Technology	Oladiran Fasina
BATM 4300 Professional Practice in Biosystems	*Jon Davis*
BATM 4110 Capstone for Technology Systems Management	*Jeremiah Davis*

*to be hired

PROPOSED CURRICULUM FOR BIOLOGICAL AND AGRICULTURAL TECHNOLOGY MANAGEMENT

FRESHMAN YEAR

FALL			SPRING		
MATH 1610 Calculus 1	4		CHEM 1010/1011 Survey of Chemistry 1 & Lab	4	
Tech & Civ 1 or World History 1	3		Tech & Civ 2 or World History 2	3	
ENGL 1100 English Composition 1	3		ENGL 1120 English Composition II	3	
Fine Arts Core (ENVD 2040)	3		COMM 1000 Public Speaking	3	
AGRI 1000/ANSC 1000/FDSC 1000/FISH 1000	2		**BATM 1110 Intro to Design in Technology**	3	M
	15			16	

SOPHOMORE YEAR

FALL			SPRING		
CHEM 1020/1021 Survey of Chemistry 2 & Lab	4		BIOL 1020/1021 Principles of Biology	4	
PHYS 1500 General Physics 1	4		STAT 2510/2610 Statistics or BUAL 2600	3	
ECON 2020 Microeconomics	3		AGEC 3010 Agribusiness Marketing	3	
BATM 2110 Solving Technology Problems	3	M	ACCT 2810 Fundamentals of Accounting	3	
	14		**BATM 3510 Ag. Power & Machinery Fundamentals**	3	M
				16	

JUNIOR YEAR

FALL			SPRING		
AGEC 4000 Principles of Agribusiness Managament	3		AGEC 4070 Agribusiness Law	3	
BUAL 2650 Business Analytics II	3		BUAL 5650 Big Data 1	3	
ENGL 3040 Technical Writing	3		**BATM 5110 Agri-Industrial Electrical Applications**	3	M
BATM 3500 Natural Resources Sys Conservation	3	M	**BSEN 5550 Principles of Food Engineering Tech**	4	M
Technical Elective 1	3		**Technical Elective 2**	3	
	15			16	

SENIOR YEAR

FALL			SPRING		
Literature Core	3		Social Science Core	3	
BATM 5120 Agri-Industrial Electronics & Controls	3	M	PHIL 1020/1040	3	
BATM 3530 Ag. Production & Process. Fac. Tech	3	M	**BATM 4110 Technology Capstone**	3	M
BATM 4100 Professional Practice in Tech Managemer	2	M	**Technical Elective 4**	3	
Technical Elective 3	3		**Technical Elective 5**	3	
			UNIV 4AA0 EN1 Undergrad Graduation	0	
	14			15	

TOTAL CREDIT HOURS = 121 **121**

ELECTIVES

The technical electives can be used to obtain a Minor in one of the following areas to meet personal career objectives

Stewardship-based Agriculture
Agronomy and Soils
Poultry Science
Agribusiness
Information Systems Management Minor
Business Analytics
Business-Engineering-Technology
Nuclear Power Generation Minor

Other Electives (also see advisor)

RSOC 3190 Food, Agriculture, and Society	3
AGRI 3800 Agriculture Leadership Development	3
BSEN 5450 Commercial Poultry & Livestock Housing	3
BATM 3560 Turf Systems Irrigation Design	3
CSES 3150 Turfgrass Management	3
HRMN 3420 Human Resource Management	3
MECH 3210 Design and Manufacturing	1
BSEN 5220 Geospatial Technologies in Biosystems	3