

MICHIGAN STATE
UNIVERSITY

November 25, 2015

MEMORANDUM

TO: Dr. Douglas Estry, Associate Provost for Undergraduate Education
and Dean of Undergraduate Studies

FROM: Dr. John Gaboury, Associate Provost for Academic Services
and Enrollment Management

RE: Request to Phase Out and Discontinue the Bachelor of Science
Degree in Technology Systems Management

For Transmittal to the University Committee on Undergraduate
Education (UCUE)

The request referenced above is being sent to the University Committee on Undergraduate Education (UCUE) in accordance with the *Bylaws for Academic Governance*, 4.4.

UCUE Response Requested:

Please ask the UCUE to consider the request referenced above and provide consultative commentary. Please mail the related materials referenced under the heading Attachments at the end of this memorandum to UCUE members.

After receiving UCUE's consultative response, the Provost will make a determination to discontinue or not to discontinue this program. If the Provost determines that the program will be discontinued, the request will be forwarded to the University Committee on Curriculum for deletion of curriculum and degree requirements.

If you have any questions, please call Joy Speas, University Curriculum Administrator at 5-8420.

Thank you.

Attachments:

1. Request to Discontinue an Academic Program form dated October 5, 2015: Bachelor of Science Degree in Technology Systems Management and attachments.
2. Student Enrollments by Program; Student Awards by Programs (for the request referenced above).

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**University
Curriculum and
Catalog**

Hannah Admin. Building
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517-355-8420
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COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

1. Request to delete the curriculum and degree requirements for the **Bachelor of Science** degree in **Technology Systems Management** in the Department of Biosystems and Agricultural Engineering. The University Committee on Undergraduate Education (UCUE) will provide consultative commentary to the Provost after considering this request. The Provost will make a determination after considering the consultative commentary from the University Committee on Undergraduate Education.

No new students are to be admitted to the program effective Spring 2011. No students are to be readmitted to the program effective Spring 2011. Effective Summer 2016, coding for the program will be discontinued and the program will no longer be available in the College of Agriculture and Natural Resources. Students who have not met the requirements for the Bachelor of Science degree in Technology Systems Management through the College of Agriculture and Natural Resources prior to Summer 2016 will have to change their major.



Michigan State University - Office of the Registrar

View a Program		Main Menu
Joy Speas, RO	Friday, 10/9/2015	
Program Name: Technology Systems Management Degree: BS Sequence Number: 3	Program Request ID: 3075	
Effective Dates: Summer 2013	Status: Interim	Initial Action: Deleted
Requested Date: 9/25/2015 8:22:34 PM		
<p>1. Department/School/College: 02038 Department of Biosystems and Agricultural Engineering</p> <p>2. Name of Program: Technology Systems Management</p> <p>3. Name of Degree: BS</p> <p>4. Type of Program:</p> <p>5. Effective Start Semester: Summer 2013 <i>2016</i></p> <p>Effective End date: Summer 2013 <i>2016</i></p> <p>Will the proposed change(s) have a negative impact on students? If so, which ones?: There are 2 students in major. One for a second degree—has not been here since SS06. One for the primary degree—has not been here since FS09. Likely these students will never finish.</p> <p>Describe impact and explain what accommodations will be made: The student last active in FS09 failed to finish an internship requirement for a capstone replacement twice. We got an exception from Dr. Brandenburg for excess repeat credits to accommodate the student and the student did not retake the credits even after the accommodation. Likely the student would never finish, but if desired all he needs is an internship credit.</p> <p>Reason(s) for change(s): Biosystems and Agricultural Engineering (BAE) reviewed the Technology Systems Management (TSM) major and determined from employment research and faculty capacity that a TSM minor was a more appropriate program to offer. The minor was approved by UCC and Faculty Senate for a Fall 2015 implementation. https://reg.msu.edu/AcademicPrograms/ProgramDetail.aspx?Program=5395 The BAE Academics Committee approved the discontinuation of the TSM major on January 23, 2015 with full BAE Faculty approval on March 20, 2015.</p>		
DEPARTMENT LEVEL APPROVAL STATUS		
Approved: Department of Biosystems and Agricultural Engineering 9/25/2015 8:23:40 PM by Luke Reese for Ajit Srivastava, Chairperson		
COLLEGE LEVEL APPROVAL STATUS		
Approved: College of Agriculture and Natural Resources 10/5/2015 6:50:34 PM by Kelly Millenbah for Kelly Millenbah, Associate Dean		
Approved: College of Engineering 9/28/2015 3:29:59 PM by Neeraj Buch for Thomas F. Wolff, Associate Dean		

Enrollments and Awards By Program Agriculture and Natural Resources

Program - Description	Span	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	Total	10 yr Diff.	
5341 - Production Animal Scholars	FS09-	0	0	0	0	0	4	16	31	22	17	90	17	
		Enrollments												
		0	0	0	0	0	0	5	13	7	13	38	13	
		Awards												
		0%	0%	0%	0%	0%	0%	31%	42%	32%	76%	42%	76%	
MS - Master of Science														
0290 - Animal Science	SQ84-	16	14	20	20	23	27	25	22	14	21	202	5	
		Enrollments												
		3	2	5	2	3	6	9	8	2	6	46	3	
		Awards												
		19%	14%	25%	10%	13%	22%	36%	36%	14%	29%	23%	10%	
PHD - Doctor of Philosophy														
0291 - Animal Science	SQ84-	24	22	18	18	19	23	22	22	22	23	213	-1	
		Enrollments												
		6	6	4	5	0	3	4	2	6	5	41	-1	
		Awards												
		25%	27%	22%	28%	0%	13%	18%	9%	27%	22%	19%	-3%	
0472 - Animal Sci-Envir Toxicology	FS95-	1	1	1	1	0	0	0	0	0	0	4	-1	
		Enrollments												
		0	0	0	1	0	0	0	0	0	0	1	0	
		Awards												
		0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	25%	0%	
Biosystems & Agricultural Engineeri														
ADDU - Additional Major Undergraduate														
5206 - Technology Systems Management	FS04-FS10	Enrollments												0
		Enrollments												
		3	0	0	0	0	0	0	0	0	0	3	-3	
		Awards												
		5	0	1	0	0	0	0	0	0	0	6	-5	
		%												
		167%	0%	0%	0%	0%	0%	0%	0%	0%	0%	200%	-167%	
5205 - Technology Systems Management	FS04-FS10	9	17	26	28	29	18	9	2	0	0	138	-9	
		Enrollments												
		0	0	3	4	8	6	7	2	0	0	30	0	
		Awards												
		0%	0%	12%	14%	28%	33%	78%	100%	0%	0%	22%	0%	
5207 - Technology Systems Management - Second Degree	FS04-FS10	1	0	0	0	0	0	0	0	0	0	1	-1	
		Enrollments												

Fiscal Year (FY) counts are distinct student counts within the Summer, Fall, and Spring terms.
 e.g. FY07=distinct student count within Summer 06, Fall 06, and Spring 07.
 If a student changed majors within the FY, he/she is counted under both majors.

6/15/2015
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DEPARTMENT of BIOSYSTEMS and AGRICULTURAL ENGINEERING

Darrell W. Donahue, Chairperson

The Department of Biosystems and Agricultural Engineering is administered jointly by the College of Agriculture and Natural Resources and the College of Engineering.

UNDERGRADUATE PROGRAMS

The department offers a ~~Bachelor of Science degree program with a major in technology systems management~~ through the College of Agriculture and Natural Resources. ~~That program is described below. A Minor in Technology Systems Management is also available.~~

The department also offers a Bachelor of Science degree program with a major in biosystems engineering through the College of Engineering. For information about that program, refer to the statement on the *Department of Biosystems and Agricultural Engineering* in the *College of Engineering* section of this catalog.

~~TECHNOLOGY SYSTEMS MANAGEMENT~~

Bachelor of Science

The Technology Systems Management program is designed to meet the needs of students who aspire to apply new technology to solve problems in food, agricultural and biological systems. Prospective students should have an affinity for physical systems, computers, and technology, and they should be practical problem-solvers.

Students in the program acquire a strong technical background tempered by an overview of business and economics. They possess highly portable skills in technology transfer and technical problem-solving which are applicable to many related career paths.

Graduates find employment as agricultural and environmental research technicians, managers of processing and production facilities, technical sales representatives, and service and marketing managers for equipment manufacturers.

Requirements for the Bachelor of Science Degree in Technology Systems Management

1. The University requirements for bachelor's degrees as described in the Undergraduate Education section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Technology Systems Management.

The University's Tier II writing requirement for the Technology Systems Management major is met by completing Technology Systems Management 481. That course is referenced in item 3. a. below.

Students who are enrolled in the Technology Systems Management major leading to the Bachelor of Science degree in the Department of Biosystems and Agricultural Engineering may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of Chemistry 161, Physics 231 and 251, and one of the following courses: Biological Science 110 or 111; Entomology 205; Microbiology and Molecular Genetics 205; Physiology 250; or Plant Biology 105. The completion of Physics 251 or Biological Science 110 satisfies the laboratory requirement.

The completion of Mathematics 124 satisfies both the College of Agriculture and Natural Resources mathematics requirement and the University mathematics requirement.

2. The requirements of the College of Agriculture and Natural Resources for the Bachelor of Science degree. Certain courses referenced in requirement 3. below may be counted toward College requirements as appropriate.

3. The following requirements for the major:

- a. All of the following courses:..... CREDITS
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ABM 100	Decision-making in the Agri-Food System	3
ABM 332	Agribusiness Operations Management	3
CEM 141	General Chemistry	4
CEM 161	Chemistry Laboratory I	1
CSE 101	Computing Concepts and Competencies	3
GEO 221	Introduction to Geographic Information	3
MTH 124	Survey of Calculus I	3
PHY 231	Introductory Physics I	3
PHY 251	Introductory Physics Laboratory I	1
TSM 121	Fundamentals of Electricity	4
TSM 122	Alternating and Direct Current Machines	3
TSM 223	Fundamentals of Automation and Controls	4
TSM 224	Digital Systems, Sensors and Measurement	3
TSM 341	Power and Machinery Systems	3
TSM 342	Power and Control Hydraulics	3
TSM 343	Implementation of Precision Agriculture	3
TSM 351	Information Technology In Agricultural Systems	3
TSM 481	Technology Systems Management – Capstone I (W)	3
TSM 482	Technology Systems Management – Capstone II	3
Students who pass a waiver examination will not be required to complete Computer Science and Engineering 101.		
b.	One of the following courses:	3 or 4
BS 110	Organisms and Populations	4
BS 111	Cells and Molecules	3
ENT 205	Pests, Society and Environment	3
MMG 205	Allied Health Microbiology	3
PLB 105	Plant Biology	3
PSL 250	Introductory Physiology	4
c.	One of the following courses:	3
COM 100	Human Communication	3
COM 225	An Introduction to Interpersonal Communication	3
d.	One of the following courses:	3 or 4
STT 200	Statistical Methods	3
STT 201	Statistical Methods	4
e.	One of the following courses:	3
EC 201	Introduction to Microeconomics	3
EC 202	Introduction to Macroeconomics	3
f.	One of the following courses:	3
FI 320	Introduction to Finance	3
GBL 323	Introduction to Business Law	3
MGT 325	Management Skills and Processes	3
MSC 327	Introduction to Marketing	3
g.	Cognate. The student must complete a minimum of 15 credits in an approved group of courses that includes courses in the College of Agriculture and Natural Resources. These courses must be chosen to form a career objective and be pre-approved by the student's academic advisor.	15