ADDENDUM TO AGENDA
UNIVERSITY COMMITTEE ON COURSES AND CURRICULA
September 3, 2021

1. Welcome
2. Approval of Minutes
3. Bylaws Revisions
4. Course proposals by college/school

5. Degree proposals by college/school

AGRICULTURE AND LIFE SCIENCES

Modification +Distance	MS	Agriculture/Engineering Technology

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: College of Agriculture and Life Sciences **Department:** Agricultural and Biological Eng.

Contact Person: Dr. Daniel Chesser **Mail Stop:** 9632 **E-mail:** dchesser@abe.msstate.edu

Nature of Change: Degree Modification **Date Initiated:** 4/07/2021

Effective Date: Spring 2022

Current Degree Program Name: M.S. in Agriculture with Engineering Technology Concentration – Non-Thesis

Major: Agriculture **Concentration:** Engineering Technology

New Degree Program Name: M.S. in Agriculture with Engineering Technology Concentration – Non-Thesis

Major: Agriculture **Concentration:** Engineering Technology

Summary of Proposed Changes:

1. Addition of distance education to the M.S. in Agriculture with Engineering Technology Concentration – Non-Thesis degree program

Approved:	Date:
Department Head	4/7/21
Chair, College or School Curriculum Committee	4/14/21
Dean of College or School	4/14/2021
Chair, University Committee on Courses and Curricula	
Chair, Graduate Council (if applicable)	
Chair, Deans Council	

CATALOG DESCRIPTION

The non-thesis option for the Master of Science in Agriculture with a concentration in Engineering Technology requires a minimum of 30 credit hours of coursework with at least 15 hours at the 8000-level. The major professor and graduate committee will determine specific course requirements for the student's program. The student must submit a research paper.

1. GRADUATE DEGREE MODIFICATION OUTLINE FORM

CURRENT Degree Description	PROPOSED Degree Description
Degree: Master of Science, Non-thesis Option Major: Agriculture, Campus 1 Concentrations: Engineering Technology	Degree: Master of Science, Non-thesis Option Major: Agriculture, Campus 1 & **Campus 5** Concentrations: Engineering Technology
Graduate study is offered in the Department of Agricultural and Biological Engineering leading to the degree of Master of Science in Agriculture with a concentration in Engineering Technology. The non-thesis option for the Master of Science in Agriculture with a concentration in Engineering Technology requires a minimum of 30 credit hours of coursework with at least 15 hours at the 8000-level. The major professor and graduate committee will determine specific course requirements for the student's program. The student must submit a research paper.	Graduate study is offered in the Department of Agricultural and Biological Engineering leading to the degree of Master of Science in Agriculture with a concentration in Engineering Technology. **The program is designed to prepare individuals for agricultural systems, technology, and business management careers within the agricultural industry and its associated business and industrial sectors.** The non-thesis Campus 1 program requires a minimum of 30 credit hours of coursework with at least 15 hours at the 8000-level. **The non-thesis Campus 5 program also requires a minimum of 30 credit hours of coursework with at least 15 hours at the 8000-level. Aside from the Concentration required courses, the student's graduate committee will determine specific course requirements for the student's program.**
n/a	**Some Directed Individual Study courses, numbered at the 7000-level, may be approved to meet the 8000-level course requirement. Not more than 6 hours of graduate credit may be earned in Directed Individual Study courses. Students will also be required to complete a scholarly activity, participate in research, and develop a scholarly document focused on the subject area.**

CURRENT CURRICULUM OUTLINE	Required Hours	PROPOSED CURRICULUM OUTLINE	Required Hours
College Required Courses No college required courses	0	College Required Courses No college required courses	0
Major Required Courses: No major required courses.	0	Major Required Courses: No major required courses.	0
Concentration 1. Courses 8000-level coursework ST 8114 Statistical Methods Select one of the following: ABE 8911 ABE seminar ABE 8921 ABE seminar Graduate-level coursework	 10 4 1 15	Concentration 1. Courses: Campus 1 8000-level coursework ST 8114 Statistical Methods Select one of the following: ABE 8911 ABE seminar ABE 8921 ABE seminar Graduate-level coursework	 10 4 1 15
Total Hours	30	Total Hours	30

- *Per Graduate School policy, "A student who has taken a course at the 4000 level at MSU CANNOT enroll in the same course at the 6000 level without explicit permission of the instructor and Graduate Coordinator of the department offering the course, the academic advisory committee, Graduate Coordinator, Department Head, and Academic Dean." Any Major Required Course completed while an undergraduate fulfills the requirement to have taken the course, but it must be replaced with another graduate level course, selected from Additional Electives, to satisfy the 30-hour minimum graduate level course requirement for the degree program.*
- *Campus 5 Graduate-level courses from other MSU Departments with at least half of the hours at the 8000-level as approved by the students graduate committee (Program of Study). Consult advisor for a list of suggested/approved courses.*

2. JUSTIFICATION FOR DISTANCE LEARNING OFFERING

Modification of this non-thesis program to distance learning (Campus 5) will provide flexibility to meet emerging graduate student needs and potential to reach a broader audience. Specifically, the online degree program would serve those whose schedule and geographic location does not lend well to traditional F2F classes. Additionally, the non-thesis component makes this program more feasible for distance-based students. The target audience would include non-traditional students and/or early/mid-career individuals seeking to earn a terminal degree by distance learning. Specific target audience examples include; non-traditional students, Extension agents/personnel, early/mid-career individuals within the agricultural industry value chain, military personnel, and State/Federal employees.

3. LEARNING OUTCOMES (no change from current program)

The objective of the degree program is to train individuals to operate and manage technologically based systems and businesses within the agricultural industry value chain. The program provides fundamental agribusiness and applied engineering technology training, principles, and knowledge for implementation of advanced technologies in current and emerging food and fiber production, processing, and logistics systems. Critical thinking, knowledge application, problem solving, and effective oral and written communication skills are core fundamentals of the program. Upon completion of the program, graduates should have the ability to:

- Understand and apply the fundamental principles of science and mathematics as well as cutting-edge agricultural systems and technologies, agricultural enterprise, and economics towards management of agro-technical systems, processes, and businesses.
- Use evidence based information to identify and think critically about agro-technical systems and industry problems.
- Collect, analyze, and interpret data towards developing and implementing sound solutions and responses to complex problems and business decisions.
- Demonstrate effective writing, speaking, presentation, and interpersonal skills needed to effectively communicate with industry professionals and stakeholders.
- Understand and put into practice professional, ethical, and safety protocols
- Provide leadership in an engineering technology-focused environment with the goal of maximizing productivity and profitability while ensuring sustainability of a business enterprise.

4. EFFECTIVE DATE

Spring 2022

5. CONTACT PERSON

Daniel Chesser, Ph.D
662-325-3282
dchesser@abe.msstate.edu

6. SUPPORT

A letter of support is included from the Department of Agricultural and Biological Engineering Graduate Faculty Committee.

Appendix 10: Report of Intent to Offer an Existing Degree Program by Distance Learning
(Submit Appendix 10 in both PDF and Word Document Formats)

Institution: Mississippi State University

Date of Initial Program Approval: 2009

Date of Implementation: Fall 2021

Cost to Offer by Distance Learning: $131,000

Program Title as It Appears on Academic Program:
Master of Science in Agriculture with Engineering Technology Concentration – Non-Thesis

Six-Digit CIP Code(s)& Four-Digit Sequence Code(s):
CIP: 010308 SEQ: 4522

Inventory, Diploma, and Transcript:
CIP & Sequence codes: IHL Active Program Inventory

Degree(s) to be Awarded:
Master of Science in Agriculture

Credit Hour Requirements:
30

Can this program be completed entirely online? Yes

Will this program require separate admission from those offered on-campus? No

Responsible Academic Unit(s):
Department of Agricultural and Biological Engineering
Center for Distance Education

Institutional Contact: Dr. Daniel Chesser
Phone: 662-325-4148
Email: dchesser@abe.msstate.edu

Number of Students Expected to Enroll in First Six Years:

Year One	**4**
Year Two	**8**
Year Three	**16**
Year Four	**16**
Year Five	**16**
Year Six	**16**
Total	**76**

Number of Graduates Expected in First Six Years:

Year One	**0**
Year Two	**4**
Year Three	**8**
Year Four	**16**
Year Five	**16**
Year Six	**16**
Total	**60**

Program Summary:
The Master of Science in Agriculture with Engineering Technology Concentration Non-Thesis program is designed to prepare individuals for agricultural systems, technology, and business management careers within the agricultural industry and its associated business and industrial sectors. Students are prepared through courses in applied engineering principles and problem solving, agricultural technology and digital systems management, and management of agricultural enterprises. Modification of this non-thesis program to Campus 5 (online) delivery will provide flexibility to meet emerging graduate student needs and potential to reach a broader audience. Specifically, the online degree program would serve those whose schedule and geographic location does not lend well to traditional F2F classes. The non-thesis Campus 5 program requires a minimum of 30 credit hours of coursework with at least 15 hours at the 8000-level. Students will also be required to develop a scholarly paper, offer an oral presentation of that information to their graduate committee, and pass an oral exam to earn their degree. This distance-based program offers a good alternative for students desiring a terminal Master's degree without having to conduct a full-scale research project.

_____
Chief Academic Officer Signature Date

_____
Institutional Executive Officer Signature Date

MISSISSIPPI STATE UNIVERSITY.

DEPARTMENT OF AGRICULTURAL AND
BIOLOGICAL ENGINEERING
P. O. Box 9632
Mississippi State, MS 39762
P. 662.325.3280
abe.msstate.edu

April 5, 2021

University Courses & Curriculum Committee
Dr. Dana Franz, Chair
P.O. Box 9601
Mississippi State, MS 39762

Dear Dr. Franz,

The Graduate Faculty of the Department of Agricultural and Biological Engineering supports offering the Non-Thesis Master of Science in Agriculture degree with Engineering Technology Concentration via Distance Education (Campus 5). This modification will provide flexibility to reach a broader audience through service to non-traditional students and career individuals seeking a terminal degree whose schedule and geographic location does not lend itself well to traditional face-to-face classes.

Sincerely,
The Faculty of ABE

Daniel Chesser
Joel O. Paz
J. Wes Lowe
J. Alex Thomasson
Yuzhen Lu
Mary Love Tagert
Prem Parajuli
Steven H. Elder
S.D. Filip To
John Linhoss
Lauren B. Priddy
Fei Yu
Anna Linhoss
C. LaShan Simpson
Nuwan Wijewardane

Appendix 10: Report of Intent to Offer an Existing Degree Program by Distance Learning
(Submit Appendix 10 in both PDF and Word Document Formats)

Institution: Mississippi State University

Date of Initial Program Approval:	Date of Implementation:	Cost to Offer by Distance Learning:
2009	Fall 2021	$131,000

Program Title as It Appears on Academic Program Inventory, Diploma, and Transcript:	Six-Digit CIP Code(s) & Four-Digit Sequence Code(s):
Master of Science in Agriculture with Engineering Technology Concentration - Non-Thesis	CIP: 010308 SEQ: 4522

CIP & Sequence codes: IHL Active Program Inventory

Degree(s) to be Awarded:	Credit Hour Requirements:
Master of Science in Agriculture	30

Can this program be completed entirely online? ☒ Yes ☐ No

Will this program require separate admission from those offered on-campus? ☐ Yes ☒ No

Responsible Academic Unit(s):
Department of Agricultural and Biological Engineering
Center for Distance Education

Institutional Contact: Daniel Chesser
Phone: 662-325-4148
Email: dchesser@abe.msstate.edu

Number of Students Expected to Enroll in First Six Years:		Number of Graduates Expected in First Six Years:	
Year One	4	Year One	0
Year Two	8	Year Two	4
Year Three	16	Year Three	8
Year Four	16	Year Four	16
Year Five	16	Year Five	16
Year Six	16	Year Six	16
Total	76	Total	60

Program Summary:

The Master of Science in Agriculture with Engineering Technology Concentration Non-Thesis program is designed to prepare individuals for agricultural systems, technology, and business management careers within the agricultural industry and its associated business and industrial sectors. Students are prepared through courses in applied engineering principles and problem solving, agricultural technology and digital systems management, and management of agricultural enterprises. Modification of this non-thesis program to Campus 5 (online) delivery will provide flexibility to meet emerging graduate student needs and potential to reach a broader audience. Specifically, the online

Chief Academic Officer Signature _____ **Date** _____

Institutional Executive Officer Signature _____ **Date** _____