

# Agricultural Education, Communications and Technology (AECT)

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Agricultural Education, Communications and Technology Website (<http://aead.uark.edu>)

The department of agricultural education, communications and technology offers a degree program with four concentrations that lead to a Bachelor of Science in Agriculture. Students may choose one of four areas of concentration, or, with adviser's approval, select courses from more than one concentration area.

- The Agricultural Education concentration is designed for students who wish to receive initial teacher licensure to teach agricultural science in public schools.
- The Agricultural Communications concentration is designed to produce graduates with both technical knowledge about the food and fiber industry and the communication skills needed to convey the story of agriculture to consumers, policy makers, and the public. Interpersonal and group communication, public relations, graphic design, electronic communication, communications campaign planning, and writing for the media are emphasized in this program.
- The Agricultural Systems Technology Management concentration is for students who are planning a professional career related to technical operations and management in the agricultural industry. Graduates assume positions of leadership and responsibility in such areas as agricultural services and sales, agricultural management, agricultural production systems, product service, product testing, and service management. The program focuses on preparing students as problem solvers in the application, management and/or marketing of agricultural technology.
- The Agricultural Leadership concentration incorporates interdisciplinary coursework that focuses on leadership and ethics in food and fiber systems, with courses offered from multiple disciplines. Interdisciplinary courses benefit students by offering different insights to problem solving, fostering collaboration with students from other majors, and reinforcing the importance of teamwork.

Students with this major are in constant demand due to the rapidly changing educational needs of the agricultural and natural resources industries. Graduates with this degree have a broad knowledge of agricultural disciplines. They are prepared as agricultural technology transfer specialists to enter a variety of careers in formal and non-formal teaching roles in either the public or private sector as agricultural educators, extension agents, industry-based trainers, information specialists, or technology-management specialists.

The department also offers programs for four minors: Agricultural Education, Agricultural Communications, Agricultural Systems Technology Management, and Agricultural Leadership.

## Requirements for a Major in Agricultural Education, Communication and Technology (AECT)

State minimum core and discipline specific general education requirements:

(Course work that meets state minimum core requirements is in bold.)

<b>University Perspectives</b>	0-1
UNIV 1001 University Perspectives	
<b>Communications</b>	3-9
Select English Core Courses (6 hours unless exempt)	
AGED 3143 Communicating Agriculture to the Public	
<b>U.S. History or Government</b>	3
Select U.S. History or Government Core Courses	
<b>Mathematics</b>	3
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher excluding MATH 1313)	
<b>Science</b>	15
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL & BIOL 1541L 1014 Lecture)	
and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL & BIOL 2011L 2004 Lecture)	
and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)	
or PHYS 104 Physics for Architects I	
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = & CHEM 1071L CHEM 1214 Lecture)	
and Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	
Science Elective for AGED Concentration (3 hours)	
Science or Math Elective for ASTM, ACOM and AGLE Concentrations (3 hours)	
<b>Fine Arts/Humanities</b>	6
Choose from Fine Arts and Humanities Core Courses (6 hours) for ASTM, ACOM and AGLE Concentrations	
For AGED concentration, select FNAR Core (3 hours from Category A)	
WLIT 1113 World Literature I (ACTS Equivalency = ENGL 2113)	
or WLIT 1123 World Literature II (ACTS Equivalency = ENGL 2123)	
<b>Social Science</b>	9
Choose Social Science Core Courses (3 hours)	
AGEC 1103 Principles of Agricultural Microeconomics	
or AGECE 211 Principles of Agricultural Macroeconomics	
PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)	
<b>AECT Requirements</b>	23
AGED 4003 Issues in Agriculture	
AGME 1613 Fundamentals of Agricultural Systems Technology & AGME 1611L and Fundamentals of Agricultural Systems Technology Laboratory	
AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers	

ANSC 1032	Introductory Animal Sciences
ANSC 1051	Introduction to the Livestock Industry
CSES 1203	Introduction to Plant Sciences
CSES 2013	Pest Management
CSES 2203	Soil Science
CSES 2201L	Soil Science Laboratory (or 1 hour of CSES 355V)
or CSES 355V	Soil Profile Description

### Additional Requirements for ACOM Concentration (39 hours)

<b>ACOM Requirements</b>	<b>39</b>
AGED 2143	Introduction to Agricultural Communications and Leadership
COMM 1313	Public Speaking (ACTS Equivalency = SPCH 1003)
AGED 3153	Leadership Development in Agriculture
AGED 3243	Ag Reporting and Feature Writing
AGED 3943	Professional Development in Agricultural Communications
AGED 4143	Electronic Communications in Agriculture
AGED 4243	Graphic Design in AFLS
AGED 4343	Communication Campaigns in Agriculture
AGED 4543	Ag Publications
EXED 475V	Internship in Extension (3 hours)
JOUR 1033	Fundamentals of Journalism
Select 6 hours from the following:	
AGEC 3313	Agribusiness Sales
AGED 3133	Instructional and Presentation Strategies
AGED 4443	Principles of Technological Change
COMM 2303	Advanced Public Speaking
COMM 2343	Introduction to Small-Group Communication
COMM 3703	Organizational Communication
JOUR 2013	News Reporting I
JOUR 2032	Broadcast News Reporting I & JOUR 2031L and Broadcast News Reporting I Laboratory
JOUR 2332	Photo Journalism I & JOUR 2331L and Photojournalism I Laboratory
JOUR 3023	News Reporting II
JOUR 3072	Broadcast News Reporting II & JOUR 3071L and Broadcast News Reporting II Laboratory
JOUR 3743	Public Relations Principles
<b>Electives</b>	<b>12-18</b>
<b>Total Hours</b>	<b>120</b>

### Agricultural Communication Nine-Semester Plan (ACOM)

First Year	Units		
	Fall	Spring	Summer
UNIV 1001 University Perspectives	1		
AGME 1613 Fundamentals of Agricultural Systems Technology & AGME 1611L Fundamentals of Agricultural Systems Technology Laboratory	4		

ANSC 1032 Introductory Animal Sciences	2		
ANSC 1051 Introduction to the Livestock Industry	1		
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	4		
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3		
AGED 2143 Introduction to Agricultural Communications and Leadership		3	
COMM 1313 Public Speaking (ACTS Equivalency = SPCH 1003)		3	
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)		3	
JOUR 1033 Fundamentals of Journalism		3	
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher) or MATH 1313 Quantitative Reasoning (ACTS Equivalency = MATH 1113)		3	
<b>Year Total:</b>	<b>15</b>	<b>15</b>	

Second Year	Units		
	Fall	Spring	Summer
AGEC 1103 Principles of Agricultural Microeconomics or AGECE 2103 Principles of Agricultural Macroeconomics	3		
AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers	3		
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture) & CHEM 1071L Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	4		
CSES 1203 Introduction to Plant Sciences	3		
Fine Arts/Humanities Core Elective	3		
AGED 3143 Communicating Agriculture to the Public		3	
CSES 2013 Pest Management		3	
HIST 2003 History of the American People to 1877 (ACTS Equivalency = HIST 2113) (or HIST 2013 History of the American People, 1877 to Present (ACTS ) or PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)		3	
PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)			3
General Electives			3

Year Total: 16 15

Third Year	Units		
	Fall	Spring	Summer
AGED 3243 Ag Reporting and Feature Writing	3		
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) or PHYS 1044 Physics for Architects I	4		
CSES 2203 Soil Science	3		
CSES 2201L Soil Science Laboratory or CSES 355V Soil Profile Description	1		
Fine Arts/Humanities Core Elective	3		
General Elective	3		
AGED 3153 Leadership Development in Agriculture		3	
AGED 4343 Communication Campaigns in Agriculture		3	
Science/Math Elective		3	
Social Science Core Elective		3	
General Elective		3	
EXED 475V Internship in Extension			3
Year Total:	17	15	3

Fourth Year	Units		
	Fall	Spring	Summer
AGED 3943 Professional Development in Agricultural Communications	3		
AGED 4003 Issues in Agriculture	3		
AGED 4243 Graphic Design in AFLS	3		
ACOM Concentration Elective	3		
AGED 4143 Electronic Communications in Agriculture		3	
AGED 4543 Ag Publications		3	
ACOM Concentration Elective		3	
Upper Division General Elective		3	
Year Total:	12	12	

Total Units in Sequence: 120

## Requirements for a Major in Agricultural Education, Communication and Technology (AECT)

State minimum core and discipline specific general education requirements:

(Course work that meets state minimum core requirements is in bold.)

<b>University Perspectives</b>	0-1
UNIV 1001 University Perspectives	
<b>Communications</b>	3-9
Select English Core Courses (6 hours unless exempt)	

AGED 3143 Communicating Agriculture to the Public	
<b>U.S. History or Government</b>	3
Select U.S. History or Government Core Courses	
<b>Mathematics</b>	3
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher excluding MATH 1313)	
<b>Science</b>	15
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL & BIOL 1541L 1014 Lecture) and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL & BIOL 2011L 2004 Lecture) and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) or PHYS 1044 Physics for Architects I	
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = & CHEM 1071L CHEM 1214 Lecture) and Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	
Science Elective for AGED Concentration (3 hours)	
Science or Math Elective for ASTM, ACOM and AGLE Concentrations (3 hours)	
<b>Fine Arts/Humanities</b>	6
Choose from Fine Arts and Humanities Core Courses (6 hours) for ASTM, ACOM and AGLE Concentrations	
For AGED concentration, select FNAR Core (3 hours from Category A)	
WLIT 1113 World Literature I (ACTS Equivalency = ENGL 2113)	
or WLIT 1123 World Literature II (ACTS Equivalency = ENGL 2123)	
<b>Social Science</b>	9
Choose Social Science Core Courses (3 hours)	
AGEC 1103 Principles of Agricultural Microeconomics or AGECE 211 Principles of Agricultural Macroeconomics	
PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)	
<b>AECT Requirements</b>	23
AGED 4003 Issues in Agriculture	
AGME 1613 Fundamentals of Agricultural Systems Technology & AGME 1611L and Fundamentals of Agricultural Systems Technology Laboratory	
AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers	
ANSC 1032 Introductory Animal Sciences	
ANSC 1051 Introduction to the Livestock Industry	
CSES 1203 Introduction to Plant Sciences	
CSES 2013 Pest Management	
CSES 2203 Soil Science	
CSES 2201L Soil Science Laboratory (or 1 hour of CSES 355V) or CSES 355V Soil Profile Description	

## Additional Requirements for AGED Concentration

Complete an evaluation for internship. Students must also meet the following criteria to be cleared for the internship:

1. Successful completion of the PRAXIS I test by meeting or exceeding the Arkansas Department of Education cut-off scores. This test should be taken after the student has completed 30 credit hours and upon completion of ENGL 1013 (<http://catalog.uark.edu/undergraduatecatalog/collegesandschools/jwilliamfulbrightcollegeofartsandsciences/artarts>), ENGL 1023 (<http://catalog.uark.edu/undergraduatecatalog/collegesandschools/jwilliamfulbrightcollegeofartsandsciences/artarts>), and MATH 1203 (<http://catalog.uark.edu/undergraduatecatalog/collegesandschools/jwilliamfulbrightcollegeofartsandsciences/artarts>).
2. Obtain a "C" or better in the following pre-education core courses: AGED 1123, AGED 1031, CIED 3023/CIED 4023, and CIED 3033 (<http://catalog.uark.edu/undergraduatecatalog/collegesandschools/jwilliamfulbrightcollegeofartsandsciences/artarts>).
3. Obtain a "C" or better in concentration education courses: AGED 3133, AGED 3143, AGED 4843, AGED 4233, and AGED 475V Internship in Agricultural Education.
4. Complete and submit online application to teacher education (See the Teacher Education Application Fee (<http://catalog.uark.edu/undergraduatecatalog/feeandcosts/othergeneralfees>)) through the university-wide Teacher Education Office GRAD 339 by Jan. 15 prior to the fall semester of the junior year. Complete degree with a cumulative GPA of 2.5 or higher. The degree must be posted to your University of Arkansas transcript at the Registrar's Office prior to certification.
5. Obtain departmental clearance for GPA requirements, course work requirements, an interview, and/or other requirements. Obtain clearance through an Arkansas Department of Education background check. Note: Another background check will be required prior to graduation in order to be eligible for licensure.
6. Submit completed application on the Office of Field Placement and Licensure website (<http://coehp.uark.edu/licensure.php>). Please contact the Director for the Office of Field Placement and Licensure, Graduate Education Building, Room 339, College of Education and Health Professions for more information.

For Teacher Certification (41-42 hours):

### Mechanical Technology Courses 8

Select 8 hours from the following:

AGME 2123	Metals and Welding
AGME 3042	Agricultural Construction Technology
AGME 3102	Small Power Units/Turf Equipment & AGME 3101 Land Small Power Units/Turf Equipment Laboratory
AGME 3153	Surveying in Agriculture and Forestry
AGME 3173	Electricity in Agriculture
AGME 4203	Mechanized Systems Management
AGME 4973	Irrigation

### Education Courses 21

AGED 1031	Introduction to Early Field Experience
AGED 1123	Foundations of Agricultural Education
AGED 3133	Instructional and Presentation Strategies
AGED 4233	

AGED 4632	Teaching Diverse Populations in Agricultural and Extension Education
AGED 4843	Methods in Agricultural Laboratories
CIED 3023	Survey of Exceptionalities or CIED 4023 Teaching in Inclusive Secondary Settings
CIED 3033	Classroom Learning Theory

### Other requirements for AGED Concentration 12-13

AGED 475V	Internship in Agricultural Education (6 hours - Criminal background check is required prior to student internship)
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HORT Elective

Science Elective (3 hours) OR

CHEM 2613	Organic Physiological Chemistry (ACTS & CHEM 2611L Equivalency = CHEM 1224 Lecture) and Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab) (required for Science teacher licensure)
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Student must complete CPR certification

### Electives 9-16

### 120 Total Hours

## Agricultural Education Nine-Semester Plan (AGED)

First Year	Units		
	Fall	Spring	Summer
UNIV 1001 University Perspectives	1		
AGED 1031 Introduction to Early Field Experience	1		
AGED 1123 Foundations of Agricultural Education	3		
AGME 1613 Fundamentals of Agricultural Systems Technology & AGME 1611L Fundamentals of Agricultural Systems Technology Laboratory	4		
ANSC 1032 Introductory Animal Sciences	2		
ANSC 1051 Introduction to the Livestock Industry	1		
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Unless Exempt)	3		
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)			4
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023) (Unless Exempt)			3
HORT Elective			3
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher) or MATH 1313 Quantitative Reasoning (ACTS Equivalency = MATH 1113)			3

PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)		3	
Year Total:	15	16	

Second Year	Units		
	Fall	Spring	Summer

AGED 1103 Principles of Agricultural Microeconomics or AGEC 2103 Principles of Agricultural Macroeconomics	3		
AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers	3		
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture)	4		
& CHEM 1071L Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)			
CSES 1203 Introduction to Plant Sciences	3		
Fine Arts/Humanities Core Elective	3		
AGED 3143 Communicating Agriculture to the Public		3	
CSES 2013 Pest Management		3	
HIST 2003 History of the American People to 1877 (ACTS Equivalency = HIST 2113) (or HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123) (Spr, Su, Fa))		3	
or PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)			
WLIT 1113 World Literature I (ACTS Equivalency = ENGL 2113)		3	
Science Elective (3 hours) or CHEM 2613 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) & CHEM 2611L Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab)		3-4	
Year Total:	16	15	

Third Year	Units		
	Fall	Spring	Summer

AGED 3133 Instructional and Presentation Strategies	3		
AGME Elective	3		
CSES 2203 Soil Science	3		
CSES 2201L Soil Science Laboratory or CSES 355V Soil Profile Description	1		
Social Science Core Elective	3		
General Elective	3		
AGME Electives		5	

BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) or PHYS 1044 Physics for Architects I		4		
CIED 3023 Survey of Exceptionalities or CIED 4023 Teaching in Inclusive Secondary Settings			3	
General Electives			4	
AGED 475V Internship in Agricultural Education				2
Year Total:	16	16	2	2

Fourth Year	Units		
	Fall	Spring	Summer

AGED 4003 Issues in Agriculture	3		
CIED 3033 Classroom Learning Theory	3		
General Elective	3-4		
Science Elective	3		
AGED 4233		3	
AGED 4632 Teaching Diverse Populations in Agricultural and Extension Education		2	
AGED 4843 Methods in Agricultural Laboratories		3	
AGED 475V Internship in Agricultural Education		4	
Year Total:	12	12	

Total Units in Sequence: 120

### Requirements for a Major in Agricultural Education, Communication and Technology (AECT)

State minimum core and discipline specific general education requirements:

(Course work that meets state minimum core requirements is in bold.)

**University Perspectives** 0-1

UNIV 1001 University Perspectives	
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**Communications** 3-9

Select English Core Courses (6 hours unless exempt)	
AGED 3143 Communicating Agriculture to the Public	

**U.S. History or Government** 3

Select U.S. History or Government Core Courses	
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**Mathematics** 3

MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher excluding MATH 1313)	
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**Science** 15

BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L 1014 Lecture) and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	
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BIOL 2013 & BIOL 2011L	General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)	
	or PHYS 104	Physics for Architects I
CHEM 1073 & CHEM 1071L	Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture) and Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	
Science Elective for AGED Concentration (3 hours)		
Science or Math Elective for ASTM, ACOM and AGLE Concentrations (3 hours)		
<b>Fine Arts/Humanities</b>		<b>6</b>
Choose from Fine Arts and Humanities Core Courses (6 hours) for ASTM, ACOM and AGLE Concentrations		
For AGED concentration, select FNAR Core (3 hours from Category A)		
WLIT 1113	World Literature I (ACTS Equivalency = ENGL 2113)	
	or WLIT 1123	World Literature II (ACTS Equivalency = ENGL 2123)
<b>Social Science</b>		<b>9</b>
Choose Social Science Core Courses (3 hours)		
AGEC 1103	Principles of Agricultural Microeconomics	
	or AGECE 21	Principles of Agricultural Macroeconomics
PSYC 2003	General Psychology (ACTS Equivalency = PSYC 1103)	
<b>AECT Requirements</b>		<b>23</b>
AGED 4003	Issues in Agriculture	
AGME 1613 & AGME 1611L	Fundamentals of Agricultural Systems Technology and Fundamentals of Agricultural Systems Technology Laboratory	
AGME 2903	Agricultural and Human Environmental Sciences Applications of Microcomputers	
ANSC 1032	Introductory Animal Sciences	
ANSC 1051	Introduction to the Livestock Industry	
CSES 1203	Introduction to Plant Sciences	
CSES 2013	Pest Management	
CSES 2203	Soil Science	
CSES 2201L	Soil Science Laboratory (or 1 hour of CSES 355V)	
	or CSES 355V	Soil Profile Description

## Additional Requirements for Agricultural Leadership Concentration (24 Hours)

<b>AGED Concentration Requirements</b>		<b>24</b>
AGED 2143	Introduction to Agricultural Communications and Leadership	
AGED 3153	Leadership Development in Agriculture	
AGED 3943	Professional Development in Agricultural Communications	
AGED 4153	Survey of Leadership Theory in Agriculture	
AGED 4163	Leadership Analysis Through Film	
AGED 4443	Principles of Technological Change	
AGED/EXED 475V	Internship in Agricultural Education	

COMM 1313 Public Speaking (ACTS Equivalency = SPCH 1003)

### AGED Concentration and General Electives 27-33

Recommended electives:

AGED 3133 Instructional and Presentation Strategies

AGEC 3313 Agribusiness Sales

AGEC 3503 Agricultural Law I

AGEC 4613 Political Economy of Agriculture and Food

**Total Hours 120**

## Agricultural Leadership Nine-Semester Plan (AGED)

First Year	Units		
	Fall	Spring	Summer
UNIV 1001 University Perspectives	1		
AGME 1613 Fundamentals of Agricultural Systems Technology & AGME 1611L Fundamentals of Agricultural Systems Technology Laboratory	4		
ANSC 1032 Introductory Animal Sciences		2	
ANSC 1051 Introduction to the Livestock Industry		1	
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)		4	
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)		3	
AGED 2143 Introduction to Agricultural Communications and Leadership			3
COMM 1313 Public Speaking (ACTS Equivalency = SPCH 1003)			3
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)			3
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103)			3
HIST 2003 History of the American People to 1877 (ACTS Equivalency = HIST 2113) or HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123) or PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)			3
Year Total:	15	15	

Second Year	Units		
	Fall	Spring	Summer
AGEC 1103 Principles of Agricultural Microeconomics or AGECE 2103 Principles of Agricultural Macroeconomics	3		

AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers	3	
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture)	4	
& CHEM 1071L Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)		
CSES 1203 Introduction to Plant Sciences	3	
Fine Arts/Humanities Core Elective	3	
AGED 3143 Communicating Agriculture to the Public		3
Fine Arts/Humanities Core Elective		3
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture)		4
& BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)		
or PHYS 1044 Physics for Architects I		
CSES 2013 Pest Management		3
PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)		3
Year Total:	16	16

Third Year	Units		
	Fall	Spring	Summer
AGED 3943 Professional Development in Agricultural Communications	3		
CSES 2203 Soil Science	3		
CSES 2201L Soil Science Laboratory or CSES 355V Soil Profile Description	1		
AGLE Concentration or General Electives	9		
AGED 3153 Leadership Development in Agriculture		3	
AGLE Concentration or General Electives		6	
Social Science Core Elective		3	
Science/Math Elective		3	
AGED 475V Internship in Agricultural Education			3
Year Total:	16	15	3

Fourth Year	Units		
	Fall	Spring	Summer
AGED 4153 Survey of Leadership Theory in Agriculture	3		
AGED 4003 Issues in Agriculture	3		
AGED 4443 Principles of Technological Change	3		
		3	
AGED 4163 Leadership Analysis Through Film		3	

AGLE Concentration or General Electives	9	
Year Total:	12	12
Total Units in Sequence:		120

## Requirements for a Major in Agricultural Education, Communication and Technology (AECT)

State minimum core and discipline specific general education requirements:

(Course work that meets state minimum core requirements is in bold.)

<b>University Perspectives</b>	0-1
UNIV 1001 University Perspectives	
<b>Communications</b>	3-9
Select English Core Courses (6 hours unless exempt)	
AGED 3143 Communicating Agriculture to the Public	
<b>U.S. History or Government</b>	3
Select U.S. History or Government Core Courses	
<b>Mathematics</b>	3
MATH 1203 College Algebra (ACTS Equivalency = MATH 1103) (or higher excluding MATH 1313)	
<b>Science</b>	15
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL & BIOL 1541L 1014 Lecture) and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL & BIOL 2011L 2004 Lecture) and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) or PHYS 1044 Physics for Architects I	
CHEM 1073 Fundamentals of Chemistry (ACTS Equivalency = & CHEM 1071L CHEM 1214 Lecture) and Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	
Science Elective for AGED Concentration (3 hours)	
Science or Math Elective for ASTM, ACOM and AGLE Concentrations (3 hours)	
<b>Fine Arts/Humanities</b>	6
Choose from Fine Arts and Humanities Core Courses (6 hours) for ASTM, ACOM and AGLE Concentrations	
For AGED concentration, select FNAR Core (3 hours from Category A)	
WLIT 1113 World Literature I (ACTS Equivalency = ENGL 2113) or WLIT 1123 World Literature II (ACTS Equivalency = ENGL 2123)	
<b>Social Science</b>	9
Choose Social Science Core Courses (3 hours)	
AGEC 1103 Principles of Agricultural Microeconomics or AGECE 211 Principles of Agricultural Macroeconomics	
PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103)	
<b>AECT Requirements</b>	23

AGED 4003	Issues in Agriculture
AGME 1613 & AGME 1611L	Fundamentals of Agricultural Systems Technology and Fundamentals of Agricultural Systems Technology Laboratory
AGME 2903	Agricultural and Human Environmental Sciences Applications of Microcomputers
ANSC 1032	Introductory Animal Sciences
ANSC 1051	Introduction to the Livestock Industry
CSES 1203	Introduction to Plant Sciences
CSES 2013	Pest Management
CSES 2203	Soil Science
CSES 2201L or CSES 355V or CSES 355V	Soil Science Laboratory (or 1 hour of CSES 355V) Soil Profile Description

ANSC 1051	Introduction to the Livestock Industry	1
BIOL 1543	Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	4
ENGL 1013	Composition I (ACTS Equivalency = ENGL 1013)	3
ENGL 1023	Composition II (ACTS Equivalency = ENGL 1023)	3
	Fine Arts/Humanities Core Elective	3
HIST 2003	History of the American People to 1877 (ACTS Equivalency = HIST 2113) (or HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123) (Sp, Su, Fa))	3
	or PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)	
MATH 1203	College Algebra (ACTS Equivalency = MATH 1103) (or higher) or MATH 1313 Quantitative Reasoning (ACTS Equivalency = MATH 1113)	3
PSYC 2003	General Psychology (ACTS Equivalency = PSYC 1103)	3
Year Total:		15 15

### Additional Requirements for ASTM Concentration (33 hours)

<b>ASTM Requirements</b>	<b>33</b>
AGEC 2303	Introduction to Agribusiness
AGEC 3303	Food and Agricultural Marketing
AGEC 3403	Farm Business Management
AGED 3153	Leadership Development in Agriculture
AGME 3102 & AGME 3101L	Small Power Units/Turf Equipment and Small Power Units/Turf Equipment Laboratory
AGME 3173 & AGME 3101L	Electricity in Agriculture and Small Power Units/Turf Equipment Laboratory
EXED 475V	Internship in Extension (3 hours) Science or Math Elective (3-4 hours)
	Select 8-9 hours from the following:
AGME 2123	Metals and Welding
AGME 3153	Surveying in Agriculture and Forestry
AGME 402V	Special Topics in Agricultural Mechanization
AGME 4203	Mechanized Systems Management
AGME 4973	Irrigation
ENSC 3603	GIS for Environmental Science
GEOS 3543	Geospatial Applications and Information Science
GEOS 4523	Cartographic Design and Production
GEOS 4593	Introduction to Global Positioning Systems and Global Navigation Satellite Systems

<b>Electives</b>	<b>17-23</b>
<b>Total Hours</b>	<b>120</b>

### Agricultural Systems Technology Management Nine-Semester Plan (ASTM)

First Year	Units		
	Fall	Spring	Summer
UNIV 1001	University Perspectives	1	
AGME 1613	Fundamentals of Agricultural Systems Technology & AGME 1611L Fundamentals of Agricultural Systems Technology Laboratory	4	
ANSC 1032	Introductory Animal Sciences	2	

Second Year	Units		
	Fall	Spring	Summer
AGEC 1103	Principles of Agricultural Microeconomics	3	
AGME 2903	Agricultural and Human Environmental Sciences Applications of Microcomputers	3	
CHEM 1073	Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture) & CHEM 1071L Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	4	
CSES 1203	Introduction to Plant Sciences	3	
	General Elective	3	
AGEC 2303	Introduction to Agribusiness		3
AGED 3143	Communicating Agriculture to the Public		3
CSES 2013	Pest Management		3
	Math/Science Elective		3
	General Electives		4
Year Total:		16	16



Third Year	Units		
	Fall	Spring	Summer
AGEC 3403 Farm Business Management	3		
ASTM Concentration Elective	2-3		
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab) or PHYS 1044 Physics for Architects I	4		
CSES 2203 Soil Science	3		
CSES 2201L Soil Science Laboratory or CSES 355V Soil Profile Description	1		
Social Science Core Elective	3		
AGEC 3303 Food and Agricultural Marketing		3	
AGED 3153 Leadership Development in Agriculture		3	
AGME 3102 Small Power Units/Turf Equipment & AGME 3101L Small Power Units/Turf Equipment Laboratory		3	
AGME 3173 Electricity in Agriculture		3	
Math/Science Elective		3-4	
EXED 475V Internship in Extension			3
Year Total:	16	15	3

Fourth Year	Units		
	Fall	Spring	Summer
AGED 4003 Issues in Agriculture	3		
ASTM Concentration Elective	3		
Upper Division General Electives	6		
ASTM Concentration Elective		3	
Fine Arts/Humanities Core Elective		3	
Upper Division General Electives		6	
Year Total:	12	12	

Total Units in Sequence: 120

### Minor in Agricultural Communications (ACOM-M)

The Agricultural Communications Minor will consist of 18 hours to include the following:

AGED 2143	Introduction to Agricultural Communications and Leadership	3
AGED 3143	Communicating Agriculture to the Public	3
JOUR 1033	Fundamentals of Journalism	3
Select 9 hours from the following:		9
AGED 3243	Ag Reporting and Feature Writing	
AGED 3943	Professional Development in Agricultural Communications	
AGED 4143	Electronic Communications in Agriculture	
AGED 4243	Graphic Design in AFLS	

AGED 4343	Communication Campaigns in Agriculture	
AGED 4543	Ag Publications	
Total Hours		18

A student planning to minor in Agricultural Education must notify the program adviser.

### Minor in Agricultural Education (AGED-M)

The Agricultural Education Minor will consist of 21 hours to include the following:

AGED 1123	Foundations of Agricultural Education	3
AGED 3133	Instructional and Presentation Strategies	3
AGED 3163		3
AGED 4233		3
AGED 4843	Methods in Agricultural Laboratories	3
CIED 3033	Classroom Learning Theory	3
CIED 3023	Survey of Exceptionalities	3
	or CIED 4023 Teaching in Inclusive Secondary Settings	
Total Hours		21

Teacher Education Requirements: To gain teacher certification, students must apply during the Fall semester of their sophomore year. We recognize not all programs can follow this timeline, but applying early will allow ample time to complete the requirements for clearance through Teacher Education.

### Minor in Agricultural Leadership (AGLE-M)

The Agricultural Leadership Minor will consist of 18 semester hours to include:

AGED 2143	Introduction to Agricultural Communications and Leadership	3
AGED 3153	Leadership Development in Agriculture	3
AGED 4153	Survey of Leadership Theory in Agriculture	3
<b>Select 9 hours from the following:</b>		9
AGEC 3313	Agribusiness Sales	
AGED 3133	Instructional and Presentation Strategies	
AGED 3943	Professional Development in Agricultural Communications	
AGED 4163	Leadership Analysis Through Film	
AGED 4443	Principles of Technological Change	
EXED 4183	Management of Volunteer Programs	

A student planning to minor in Agricultural Leadership should contact the program adviser for consultation and more detailed information.

### Minor in Agricultural Systems Technology Management (ASTM-M)

The Agricultural Systems Technology Management Minor will consist of 18 hours to include the following:

AGME 1613	Fundamentals of Agricultural Systems Technology	3
AGME 2903	Agricultural and Human Environmental Sciences Applications of Microcomputers	3
Select 12 hours from the following:		12
AGME 1611L	Fundamentals of Agricultural Systems Technology Laboratory	

AGME 2123	Metals and Welding	
AGME 3153	Surveying in Agriculture and Forestry	
AGME 3102	Small Power Units/Turf Equipment	
& AGME 3101	Land Small Power Units/Turf Equipment Laboratory	
AGME 3173	Electricity in Agriculture	
AGME 4203	Mechanized Systems Management	
AGME 4973	Irrigation	
ENSC 3603	GIS for Environmental Science	
Total Hours		18

A student planning to minor in Agricultural Systems Technology Management must notify the program adviser for consultation and more detailed information.

## Faculty

**Cox, Casandra Kay**, M.S., B.S. (University of Arkansas), Instructor, 2003.

**Edgar, Don**, Ph.D. (Texas A&M University), M.S., B.S. (Tarleton State University), Associate Professor, 2008.

**Estes, Hanna**, M.S., B.S. (University of Arkansas), Instructor, 2014.

**Graham, Donna Lucas**, Ph.D. (University of Maryland-College Park), M.Ed., B.S. (University of Arkansas), University Professor, 1985.

**Johnson, Donald M.**, Ph.D. (University of Missouri-Columbia), M.A., B.S. (Western Kentucky University), Professor, 1993.

**Miller, Jefferson Davis**, Ph.D., M.A. (Oklahoma State University), B.A. (Northeastern State University), Professor, 2001.

**Miller, Rene P.**, Ed.D. (Texas Tech University/Texas A&M University), Lecturer, 2013.

**Poling, Richard L.**, Ph.D, B.S., M.S. (Ohio State University), Adjunct Associate Professor, 2009.

**Rice, Lanny**, M.S. (University of Arkansas), Instructor, 2012.

**Rucker, Kathryn Jill**, Ph.D., M.B.A., B.S. (Oklahoma State University), Assistant Professor, 2013.

**Shoulders, Kate**, Ph.D. (University of Florida), M.S., M.A. (Murray State University), Associate Professor, 2012.

**Wardlow, George W.**, Ph.D. (The Ohio State University), M.Ed., B.S. (University of Missouri-Columbia), Professor, 1992.

## Agricultural Education Courses

### **AGED 1001. Orientation to Agricultural and Extension Education. 1 Hour.**

Continuation of AFLS 1011, Freshman Orientation, with attention given to sharing of possible solutions to individual problems. Exploration of anticipated collegiate experiences for departmental majors as well as post-graduation opportunities. Student and faculty interaction is stressed. The class meets during the last half of the fall semester twice a week. The class also meets 1 or 2 evenings for up to two hours each time.

### **AGED 1031. Introduction to Early Field Experience. 1 Hour.**

A thirty hour field experience designed to give prospective agricultural education teachers an opportunity to observe and participate in a variety of school settings. Corequisite: AGED 1123.

### **AGED 1123. Foundations of Agricultural Education. 3 Hours.**

A preparatory course evaluating the historical foundations of agricultural education with an introduction to the psychological, sociological and philosophical foundations of education. This course will encourage reflective practice through understanding of educational trends, classroom environment creation and utilization, and effective program planning.

### **AGED 1133. Lifelong Agricultural Advocacy. 3 Hours.**

This course will supply students with the necessary information and skills to evaluate and seek out opportunities and methods for advocating for agricultural industries. This course will equip students with the knowledge and skills to become active agricultural leaders serving at the intersection of policy, consumer engagement, and best agricultural practice.

### **AGED 2143. Introduction to Agricultural Communications and Leadership. 3 Hours.**

A survey of agricultural communications and leadership theories and practices for students in the ACOM and AGLE concentrations and minors and anyone seeking a basic understanding of these disciplines. The course provides an overview of the history, philosophy, and theories of the disciplines and introduces students to career options, skills and practical competencies required of agricultural communicators and leaders.

### **AGED 3111. Student Management. 1 Hour.**

To guide students in the development of realistic, proactive classroom management strategies that establish a safe culture of student learning and academic success.

### **AGED 3133. Instructional and Presentation Strategies. 3 Hours.**

Methods and techniques in teaching agriculture at the secondary level. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: AGED 1031.

### **AGED 3143. Communicating Agriculture to the Public. 3 Hours.**

An overview of public communications theory and practices in the agricultural, food, and life sciences with a particular focus on technical writing, public relations and media relations writing, campaign planning, public speaking, and various mass media communication techniques, including print, broadcast, electronic, and social media.

### **AGED 3153. Leadership Development in Agriculture. 3 Hours.**

Identification of styles and roles of leadership; development of leadership techniques and skills required in working with organizations; dynamics of group action; methods of resolving conflict; ethical considerations for leaders; and personal skills development.

### **AGED 3153H. Honors Leadership Development in Agriculture. 3 Hours.**

Identification of styles and roles of leadership; development of leadership techniques and skills required in working with organizations; dynamics of group action; methods of resolving conflict; ethical considerations for leaders; and personal skills development. Prerequisite: Junior standing.

This course is equivalent to AGED 3153.

### **AGED 3161L. Curriculum Development and Assessment Techniques in Career and Technical Education Laboratory. 1 Hour.**

To supply students with opportunities to apply skills in creating curricula, lesson plans, and assessment strategies for courses in career and technical education. Materials created as a result of this course will apply principles learned in AGED 3162, and will align with anticipated courses to be taught by the student during his/her teaching internship.

### **AGED 3162. Curriculum Development and Assessment Techniques in AGED. 2 Hours.**

To supply students with the necessary information and skills to select and apply appropriate teaching techniques, curricula, resources, and assessment strategies when designing a course in career and technical education.

### **AGED 3173. Research Methods in the Social Sciences. 3 Hours.**

This course offers undergraduate students the basics and explanation for appropriate research procedures, data collection, analysis, and reporting. Course objectives to include identifying appropriate components of research works, evaluation of research in social science and creation of research projects. The purpose of the course is to prepare undergraduate students to be better producers and consumers of research in the social sciences.

**AGED 3173H. Honors Research Methods in the Social Sciences. 3 Hours.**

This course offers undergraduate students the basics and explanation for appropriate research procedures, data collection, analysis, and reporting. Course objectives to include identifying appropriate components of research works, evaluation of research in social science and creation of research projects. The purpose of the course is to prepare undergraduate students to be better producers and consumers of research in the social sciences.

This course is equivalent to AGED 3173.

**AGED 3243. Ag Reporting and Feature Writing. 3 Hours.**

This course will provide students an exposure to writing, interviewing, and editing news on agricultural issues in agricultural industry publications. Students will gain practical experience with journalistic interviewing, news writing, feature writing, digital photography, and writing for broadcast on agricultural issues. This course is designed for students with at least six hours of upper division courses. Pre- or Corequisite: JOUR 1033 and lab component.

**AGED 3943. Professional Development in Agricultural Communications. 3 Hours.**

Overview of professional and technical skills needed to succeed in internships and jobs in the field of agricultural communications.

**AGED 4003. Issues in Agriculture. 3 Hours.**

Lecture and discussion on local, regional, national and international issues related to agricultural policy, ethics, environment, society, and science. Designed for students with at least six hours of upper division agricultural science courses. Prerequisite: Junior standing.

**AGED 400V. Special Problems in Agricultural and Extension Education. 1-6 Hour.**

Individual study or research for advanced undergraduates in the field of agricultural and extension education. May be repeated for up to 6 hours of degree credit.

**AGED 401V. Special Topics. 1-3 Hour.**

Studies of selected topics in agricultural or extension education not covered in other courses. May be repeated for up to 4 hours of degree credit.

**AGED 4113. Undergraduate Researchers Improving Student Experience. 3 Hours.**

To engage students in the social sciences in action research that serves to solve a problem or answer a question within the student's academic field through scientific inquiry. All students will work with professionals, commonly outside of the university, within their discipline to conduct their action research in order to solve a problem experienced by that professional. Students may work in teams or individually to complete the overall purpose of the course.

**AGED 4143. Electronic Communications in Agriculture. 3 Hours.**

An overview of communication technology in the agricultural, food and life sciences.

**AGED 4153. Survey of Leadership Theory in Agriculture. 3 Hours.**

An interdisciplinary analysis of current issues in the practice of leadership in a contemporary and changing society, particularly as they affect agricultural organizations and issues. Discussions of leadership theory, roles of leaders, skills for effective leadership, diversity issues, and followership will challenge students to think critically about leadership, enhance personal leadership performance and potential, and prepare for or expand leadership roles, and to become innovative and productive in dealing with challenges facing agricultural organizations today. Prerequisite: AGED 3153.

**AGED 4163. Leadership Analysis Through Film. 3 Hours.**

Films are a catalyst" (Clemens, 1999). They make you laugh, cry, cheer, and think. Flaum (2002) stated leadership is best learned in the leadership moment. Moreover, the principles of Andragogy advocate adult learners best learning when there is a practical application of the learning subject. Therefore, this course builds upon the study of leadership theory by allowing students to analyze, reflect, synthesize, and apply leadership theories, models and concepts in the context of film. The course materials encourage students to reflect, synthesize, analyze, and apply the information learned from major leadership theories and apply them to various scenarios and situations demonstrated in selected films. Prerequisite: AGED 3153 or AGED 4153 or graduate standing or instructor consent.

**AGED 4211. Teachers as Professionals. 1 Hour.**

To expose students to the roles and responsibilities of professional teachers. Students will understand the characteristics common to professionals and apply these to the teaching setting. Real-world examples of "grey-area" situations will allow students to evaluate issues holistically and determine appropriate solutions following the ethical and professional guidelines of the teaching discipline. Additionally, students will prepare resumes and engage in mock interviews to enhance their professional dispositions as they consider employment opportunities.

**AGED 4231. Program Development. 1 Hour.**

Principles and concepts of leadership, program organization, supervised agricultural experience, and advisory committees. This course is a portion of pre-professional studies required for certification in agricultural education. Prerequisite: AGED 3133.

**AGED 4243. Graphic Design in AFLS. 3 Hours.**

This course provides students with graphic design and software skills specific to industries in Agriculture, Food, and Life Sciences. Students will learn to use industry-standard software (InDesign, Photoshop, Illustrator, Microsoft Excel, etc.) to prepare text and graphics and package them for use in print production. Prerequisite: AGME 2903 or ISYS 1123 or equivalent.

**AGED 4343. Communication Campaigns in Agriculture. 3 Hours.**

Students will develop understanding of the principles, practices and applications of social marketing, integrated marketing communications, advertising and public relations as they pertain to developing communication campaign strategies for the agricultural industry. Students will develop a communication campaign for an agricultural company and/or entity focused on a specific product or service. Prerequisite: Junior, senior or graduate status.

**AGED 4443. Principles of Technological Change. 3 Hours.**

This course introduces a structured approach for dealing with the organizational and human aspects of technology transition, including the key concepts of resistance and change management, organizational change, communications, and processes by which professional change agents influence the introduction, adoption, and diffusion of technological change. This course may be offered as a web-based course. Prerequisite: Junior standing.

**AGED 4543. Ag Publications. 3 Hours.**

Students produce a magazine through classroom study mirroring a professional magazine staff and are provided an opportunity for their writing, advertisements, photographs and artwork to be published in the magazine. By using computer applications, students integrate various skills including writing, editing and layout in agricultural publications. Prerequisite: JOUR 1033.

**AGED 4632. Teaching Diverse Populations in Agricultural and Extension Education. 2 Hours.**

This course is designed to provide pre-service teachers of agriculture with an understanding of teaching diverse populations as applied to problems of practice in agricultural and extension education.

**AGED 475V. Internship in Agricultural Education. 1-6 Hour.**

Scheduled practical field experiences under the supervision of a professional practitioner in off-campus secondary school systems. Emphasis includes classroom preparation, teaching, and student evaluation. Successful completion of a criminal background check required before a student can begin internship. Prerequisite: Admission into Clinical Practice. May be repeated for up to 6 hours of degree credit.

**AGED 4843. Methods in Agricultural Laboratories. 3 Hours.**

Methods and management techniques in all types of agricultural laboratories that may be in a secondary agricultural science program. Emphasis on management of students and facilities, equipment, and materials. Lecture 2 hours, laboratory 4 hours per week. Prerequisite: AGME 2123.

## Agricultural Mechanization Courses

**AGME 1611L. Fundamentals of Agricultural Systems Technology Laboratory. 1 Hour.**

Study of basic mathematical and physical science concepts important in the mechanization of agriculture. Laboratory required for agricultural education, communication and technology majors enrolled in AGME 1613, optional for others enrolled in AGME 1613. Corequisite: AGME 1613.

**AGME 1613. Fundamentals of Agricultural Systems Technology. 3 Hours.**

Introduction to basic physical concepts important in agricultural technical systems: applied mechanics, power and machinery management, structures and electrification, and soil and water conservation. Lecture 3 hours per week. Corequisite: AGME 1611L (for AECT Majors).

**AGME 2123. Metals and Welding. 3 Hours.**

An introduction to agricultural mechanics shop work to include hot and cold metal work, arc welding, and gas welding and cutting. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component.

**AGME 2903. Agricultural and Human Environmental Sciences Applications of Microcomputers. 3 Hours.**

Lecture and laboratory assignments covering the contemporary use of microcomputers in agricultural, food and life sciences. Emphasis placed on learning to use selected, appropriate Microsoft (Windows, Word, Excel, PowerPoint and Access), email/Internet, and collaboration software packages.

**AGME 3042. Agricultural Construction Technology. 2 Hours.**

Principles of building design and construction. Includes site selection calculating structural loads and computerized packages for building design. Safety practices, selection of building materials and determining costs are also included. Lecture is one hour and lab is two hours per week. Prerequisite: MATH 1203 and junior standing.

**AGME 3101L. Small Power Units/Turf Equipment Laboratory. 1 Hour.**

Testing, evaluation, and maintenance of engines, hydrostatic power transmission systems, and equipment commonly used in the turf and landscaping industries. Corequisite: AGME 3102. Prerequisite: MATH 1203.

**AGME 3102. Small Power Units/Turf Equipment. 2 Hours.**

Principles of operation, adjustment, repair, maintenance, and trouble shooting of small air-cooled engines and power units, including various engine systems, service and maintenance of turf equipment and machinery. Lecture 2 hours per week. Corequisite: AGME 3101L. Prerequisite: MATH 1203.

**AGME 3153. Surveying in Agriculture and Forestry. 3 Hours.**

Techniques and procedures normally used in determining areas and characterizing the topography of agricultural and forest lands. Includes basic concepts of surveying; use and care of level, transit, distance measuring equipment; topographic mapping and public land surveys.

**AGME 3173. Electricity in Agriculture. 3 Hours.**

Principles of electricity; wiring of home, farmstead and other agricultural structures; selection of electric motors and their care and application in the broad field of agriculture; lighting and special uses of electricity such as heating and electrical controls. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

**AGME 400V. Special Problems. 1-6 Hour.**

Individual research or study in electrification, irrigation, farm power, machinery, or buildings. Prerequisite: Senior standing. May be repeated for up to 6 hours of degree credit.

**AGME 402V. Special Topics in Agricultural Mechanization. 1-4 Hour.**

Topics not covered in other courses or a more intensive study of special topics in agricultural mechanization. May be repeated for degree credit.

**AGME 4203. Mechanized Systems Management. 3 Hours.**

Selection, sizing, and operating principles of agricultural machinery systems, including power sources. Cost analysis and computer techniques applied to planning and management of mechanized systems. Corequisite: Lab component. Prerequisite: MATH 1203.

**AGME 4973. Irrigation. 3 Hours.**

Methods of applying supplemental water to soils to supply moisture essential for plant growth, sources of water, measurement of irrigation water, pumps, conveyance structure, economics, and irrigation for special crops. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

## Extension Education Courses

**EXED 4183. Management of Volunteer Programs. 3 Hours.**

Recruiting, training, management, evaluation, and recognition of volunteers in agricultural-related agencies, non-profit organizations, community groups, and advisory committees. Prerequisite: Junior standing.

**EXED 475V. Internship in Extension. 3-6 Hour.**

A supervised practical work experience in Cooperative Extension which is designed to give the student an insight into the role of Extension employees and an opportunity to gain professional competence in this area. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.