

Fall 2020 Course Descriptions as of 04/05/2020 08:10 PM

Information in Browse Course Catalog is subject to change. Information is term specific. Please refer to the appropriate term when searching for course content. Key to Course Descriptions may be found at: http://rcs.registrar.arizona.edu/course_descriptions_key.

Agricultural Technology Mgmt (AGTM)

AGTM 100: Principles and Practices of Agricultural Mechanization (3 units)

Description: Basic principles and operative skills in construction and maintenance which are part of agricultural operations in production and urban agriculture systems. Principles for wood and metal construction, inert gas welding, plasma cutting, and construction of wood and metal projects are included. Major emphasis is placed on safety in the laboratory.

Grading basis: Student Option ABCDE/PF

Career: Undergraduate

Flat Fee: \$50

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|---------------------------|------------|----------------|
| Course Components: | Laboratory | May Be Offered |
| | Lecture | Required |

Equivalent to: AED 100

Course typically offered:

Main Campus: Fall

AGTM 120: Basic Computer Skills for Office Applications (3 units)

Description: This course covers Microsoft Office 365 and more. Its major objective is to give students the learning experience developing skills in cyber competencies they need to enhance productivity in their tenure at the university and in the workplace after graduation. The introductory unit helps students become familiar with essential computing concepts, i.e., hardware and software, different apps, and the Windows operating system. Subsequently, they will learn file management and the basics of browsers and e-mail. The application units cover Microsoft Word, Excel, and PowerPoint taught at basic/intermediate levels. Introductory material for Microsoft Access is also presented.

Grading basis: Regular Grades

Career: Undergraduate

Flat Fee: \$32

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|---------------------------|------------|----------------|
| Course Components: | Laboratory | May Be Offered |
| | Lecture | Required |

Equivalent to: ABE 220, ABT 220, AGTM 120, AGTM 220, ENGR 220, FCR 120, FCR 220, FCSC 120, NFS 220, N_SC 120, N_SC 220, PLS 120

Also offered as: BE 120, FCSC 120, NSC 120, PLS 120

Course typically offered:

Main Campus: Fall, Winter, Spring, Summer

Online Campus: Fall, Winter, Spring, Summer

Distance Campus: Fall, Winter, Spring, Summer

Home department: Biosystems Engineering

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 170A1: Energy Sources of Arizona and the U.S. (3 units)

Description: We use energy every day. We rely on multiple energy sources to supply our increasing appetite to power our technology, to give us light, and to regulate temperature and light. Energy is used in transportation, in our homes and businesses, and in our manufacturing and in the field of agriculture in the production of our food and fiber. What is our energy-consuming-impact on our environment? There are alternative energy sources. What are they? How are they used? What are their limitations? This course will explore both renewable and nonrenewable energy sources used in Arizona and the United States. What are the historical and economic impacts?

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Lecture Required

Course typically offered:

Main Campus: Summer

Online Campus: Summer

AGTM 195A: Agriculture Technology and Public Policy (1 unit)

Description: This course reviews the importance of American agriculture to the economic strength and stability of our society. The overall goal is to acquaint students with the complexities of providing food and fiber to a nation experiencing rapid technological and social change. Since the agricultural industry in Arizona is unique in its high technology approach to agricultural production in arid environments, this course gives students an overview of the specialized scientific applications employed.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Colloquium Required

Freshman Colloquia: Freshman Colloquia

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 200: Solar Photovoltaic Energy Systems with Applications to Agriculture (3 units)

Description: Solar Photovoltaic Energy Systems provides an overview of solar energy system technology with applications to agriculture. Students will be exposed to multiple types of solar photovoltaic energy systems and system components. Students will use solar tools and materials to assemble and operate systems, measure energy output, calculate system capacity, and assess variables effecting system performance.

Grading basis: Regular Grades

Career: Undergraduate

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|---------------------------|------------|----------|
| Course Components: | Laboratory | Required |
| | Lecture | Required |

Course typically offered:

Main Campus: Summer

Recommendations and additional information: Previous completion of AGTM 100 is encouraged, but not required.

Field trip: Field trips to view solar PV systems. One is to view a system which is a ground-mount, single-tracking system used to off-set energy costs for pumping irrigation water. Another to view an example of a grid-connect system used by a commercial business.

AGTM 213: Agricultural & Food Marketing (3 units)

Description: Examine the organizational, institutional and economic elements that form agricultural and food marketing systems at the regional, national and international levels.

Grading basis: Student Option ABCDE/PF

Career: Undergraduate

| | | |
|---------------------------|---------|----------|
| Course Components: | Lecture | Required |
|---------------------------|---------|----------|

AGTM 222: Planning & Organizing Youth Career Development Event & Leadership

Activities (3 units)

Description: The purpose of this course is to expose students to the concept of the application of learning utilized in agricultural education. We will explore the role and impact of Career Development Events (CDE) in the secondary agricultural education program. The course will introduce students to use an Microsoft Access-based Career Development Event (CDE) tabulations program to set up and score a competitive 4H judging or FFA Career Development Event for district or statewide field day. Students will need to provide their own thumb-drive to store data files. Students will gain hands-on experience with Microsoft Access, Excel, Powerpoint, and Word software.

Grading basis: Regular Grades

Career: Undergraduate

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|---------------------------|---------|----------|
| Course Components: | Lecture | Required |
|---------------------------|---------|----------|

Equivalent to: AGTM 222

Also offered as: AED 222

Home department: Agricultural Education

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 293: Internship (1 - 6 units)

Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 299: Independent Study (1 - 3 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 299H: Honors Independent Study (1 - 3 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

Enrollment requirement: Student must be active in the Honors College.

Honors Course: Honors Course

Honors Course: Honors Course

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 330: Turf and Landscape Technology (3 units)

Description: The basic scientific principles and skills of construction, operation, and maintenance in turf, landscape and urban agricultural equipment. Provides student with laboratory experiences in machinery, sprinkler and drip irrigation installation, operation and maintenance, chemical application systems, and hardscaping.

Grading basis: Regular Grades

Career: Undergraduate

Flat Fee: \$75

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|---------------------------|------------|----------------|
| Course Components: | Laboratory | May Be Offered |
| | Lecture | Required |

Course typically offered:

Main Campus: Spring (odd years only)

AGTM 350: Applications in Agricultural Mechanics (3 units)

Description: The fundamentals of electric power, electric motors, and leveling and measurement, and the internal combustion engine. Subject matter is selected to provide the fundamentals of applied mechanical knowledge and skills basic to urban agricultural mechanization and appropriate for instructional programs in agricultural mechanics at the secondary school level.

Grading basis: Regular Grades

Career: Undergraduate

Flat Fee: \$50

| | | |
|---------------------------|------------|----------------|
| Course Components: | Laboratory | May Be Offered |
| | Lecture | Required |

Equivalent to: AED 350

Course typically offered:

Main Campus: Fall

AGTM 351: Operations in Agricultural Mechanics (3 units)

Description: The fundamentals of agricultural power and machinery with emphasis upon applications to urban agricultural mechanization. Competencies include set up, adjustment, lubrication, as well as operation and maintenance of machinery involved in landscape construction, turf installation, turf maintenance, and other machinery specifically suited to urban agricultural mechanization. Selected production agriculture equipment may also be included.

Grading basis: Student Option ABCDE/PF

Career: Undergraduate

Flat Fee: \$50

| | | |
|---------------------------|------------|----------------|
| Course Components: | Laboratory | May Be Offered |
| | Lecture | Required |

Equivalent to: AED 351

Course typically offered:

Main Campus: Spring (even years only)

Recommendations and additional information: AGTM 100.

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 375: Legal Issues in Agriculture (3 units)

Description: This course presents basic elements of statutory and administrative law promulgated by the U.S. legal system that directly influences agricultural operations in a free market economy. Included in the presentations are discussions on property rights, contracts, bankruptcy, estate planning, farm income tax, and the organization of a farm firm.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Lecture Required

Course typically offered: Distance Campus: Spring (even years only)

AGTM 380: Global Agricultural and International Relations (3 units)

Description: The importance of agriculture to the cultures, political structures, and economies of developing countries in Africa, Asia, South America, and Oceania.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Lecture Required

Equivalent to: ANTH 380, GEOG 380

Also offered as: ANTH 380, GEOG 380

Recommendations and additional information: Introductory course in anthropology, sociology or economics. Two courses from Tier One, Individuals and Societies (Catalog numbers 150A, 150B, 150C).

General Education: Tier 2 Individuals & Societies

Writing Emphasis: Writing Emphasis Course

AGTM 391: Preceptorship (1 - 3 units)

Description: Specialized work on an individual basis, consisting of instruction and practice in actual service in a department, program, or discipline. Teaching formats may include seminars, in-depth studies, laboratory work and patient study.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 391H: Honors Preceptorship (1 - 3 units)

Description: Specialized work on an individual basis, consisting of instruction and practice in actual service in a department program, or discipline. Teaching formats may include seminars, in-depth studies, laboratory work and patient study.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

Enrollment requirement: Student must be active in the Honors College.

Honors Course: Honors Course

Honors Course: Honors Course

AGTM 393: Internship (1 - 6 units)

Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 399: Independent Study (1 - 5 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 399H: Honors Independent Study (1 - 5 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

Enrollment requirement: Student must be active in the Honors College.

Honors Course: Honors Course

Honors Course: Honors Course

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 493: Internship (1 - 8 units)

Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 494R: Research (3 units)

Description: The practical application, on an individual basis, of previously studied theory and the collection of data for future theoretical interpretation.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 2 times.

Recommendations and additional information: ENGL 101, ABE 120, consent of instructor.

AGTM 496: Special Topics in Agriculture Technology Management (1 - 3 units)

Description: The Special Topics course opens the possibility to offer a variety of subjects that enhance the curriculum as a response to current issues and trending topics in agricultural technology management. The scope of work shall vary depending on the content of course

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Seminar Required

Repeatable: Course can be repeated a maximum of 99 times.

Co-convened with: AGTM 596

Course typically offered:

Main Campus: Fall, Winter, Spring, Summer

Field trip: No

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 497C: Controlled Environment Agriculture IPM (3 units)

Description: Integrated Pest Management Principles, methods, and practices commonly used in controlled environment agriculture operations. Includes hands on monitoring and identification of pests in the Controlled Environment Agriculture Center (CEAC) teaching/research greenhouses.

Grading basis: Student Option ABCDE/PF

Career: Undergraduate

Flat Fee: \$24

Course Components: Workshop Required

Equivalent to: ABE 497C, AGTM 497C

Also offered as: BE 497C, ENTO 497C

Co-convened with: AGTM 597C

Course typically offered:

Main Campus: Spring

Home department: Entomology

AGTM 498: Senior Capstone (1 - 3 units)

Description: A culminating experience for majors involving a substantive project that demonstrates a synthesis of learning accumulated in the major, including broadly comprehensive knowledge of the discipline and its methodologies. Senior standing required.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

AGTM 498H: Honors Thesis (3 units)

Description: An Honors thesis is required of all students graduating with honors. Students ordinarily sign up for this course as a two-semester sequence. The first semester the students performs research under the supervision of a faculty member; the second semester the student writes an honors thesis.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated for a maximum of 9 units.

Course typically offered:

Main Campus: Fall, Spring

Enrollment requirement: Student must be active in the Honors College.

Honors Course: Honors Course

Honors Course: Honors Course

Writing Emphasis: Writing Emphasis Course

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 499: Independent Study (1 - 3 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Alternative Grading: S, P, F

Career: Undergraduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 499H: Honors Independent Study (1 - 3 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

Grading basis: Regular Grades

Career: Undergraduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring

Enrollment requirement: Student must be active in the Honors College.

Honors Course: Honors Course

Honors Course: Honors Course

AGTM 593: Internship (1 - 8 units)

Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

Grading basis: Alternative Grading: S, P, F

Career: Graduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 596: Special Topics in Agricultural Technology Management (1 - 3 units)

Description: The Special Topics course opens the possibility to offer a variety of subjects that enhance the curriculum as a response to current issues and trending topics in agricultural technology management. The scope of work shall vary depending on the context of course

Grading basis: Alternative Grading: S, P, F

Career: Graduate

Course Components: Seminar Required

Repeatable: Course can be repeated a maximum of 99 times.

Co-convened with:

Course typically offered:

Main Campus: Fall, Winter, Spring, Summer

Field trip: No

AGTM 597C: Controlled Environment Agriculture IPM (3 units)

Description: Integrated Pest Management Principles, methods, and practices commonly used in controlled environment agriculture operations. Includes hands on monitoring and identification of pests in the Controlled Environment Agriculture Center (CEAC) teaching/research greenhouses.

Grading basis: Regular Grades

Career: Graduate

Flat Fee: \$24

Course Components: Workshop Required

Equivalent to: ABE 597C, AGTM 597C, ENTO 597C

Also offered as: BE 597C, EIS 597C

Co-convened with: AGTM 497C

Course typically offered:

Main Campus: Spring

Home department: GIDP on Entomology and Insect Science

AGTM 599: Independent Study (1 - 5 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work. Graduate students doing independent work which cannot be classified as actual research will register for credit under course number 599, 699, or 799.

Grading basis: Alternative Grading: S, P, F

Career: Graduate

Course Components: Independent Study Required

Repeatable: Course can be repeated a maximum of 99 times.

Course typically offered:

Main Campus: Fall, Spring, Summer

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

AGTM 693: Internship (1 - 3 units)

Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

Grading basis: Alternative Grading: S, P, F

Career: Graduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring, Summer

AGTM 699: Independent Study (1 - 3 units)

Description: Qualified students working on an individual basis with professors who have agreed to supervise such work. Graduate students doing independent work which cannot be classified as actual research will register for credit under course number 599, 699, or 799.

Grading basis: Alternative Grading: S, P, F

Career: Graduate

Course Components: Independent Study Required

Course typically offered:

Main Campus: Fall, Spring, Summer

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

May Be Offered Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.