AGRICULTURAL OPERATIONS MANAGEMENT

Agricultural operations management (AOM) combines hands-on applied coursework and core business principles with emerging technologies and sustainable methods to enable students to apply cutting edge techniques to a wide variety of career paths.

About this Program

- **College**: Agricultural and Life Sciences
- **Degree**: Bachelor of Science
- **Credits for Degree**: 120
- **Additional Information**
- **Related AOM Programs**

To graduate with this major, students must complete all university, college, and major requirements.

Students gain technical experience in systems management, environmental quality, energy efficiency, agricultural machinery, GIS/GPS remote sensing, irrigation, power systems, water control and precision agriculture.

The curriculum supports students who plan to seek career opportunities in commercial business operations and management. In addition to hands-on applied skills, students also will take courses in economics, accounting, business, finance, sales and business management. Graduates become an integral part of the profitable operations of many types of businesses, such as grove management, commercial nurseries, building construction and materials, cattle operations, regulatory agencies and citrus processing.

The Agricultural Operations Management program is housed in Rogers Hall with laboratories, classrooms and a student computing lab, and also features an additional off-site construction laboratory on Museum Road.

The program features electives in focused areas of concentration:

- Sustainable Energy and Facilities
- Agribusiness Management
- Agricultural Leadership or Extension
- Animal Production Management
- Fishery and Aquatic Production
- Forest Resources and Conservation
- Horticulture and Crop Management
- Soil and Water Science

Related AOM Programs

- Combined Degree
- Precision Agriculture minor

Critical Tracking

Critical Tracking records each student’s progress in courses that are required for entry to each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

**Semester 1**

- Complete 2 of 8 critical-tracking courses, excluding labs, with a minimum grade of C: ACG 2021, BSC 2010 and BSC 2010L, CHM 2045 and CHM 2045L, ENC 2210, MAC 1147 or MAC 2233, PHY 2004 or PHY 2020, PSY 2012, and SPC 2608 or AEC 3030C.
- 2.0 GPA required for all critical-tracking coursework
- 2.0 UF GPA required

**Semester 2**

- Complete 1 additional critical-tracking course, excluding labs, with a minimum grade of C.
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

**Semester 3**

- Complete 2 additional critical-tracking course, excluding labs, with a minimum grade of C.
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

**Semester 4**

- Complete 1 additional critical-tracking course, excluding labs, with a minimum grade of C.
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

**Semester 5**

- Complete remaining critical-tracking courses, including labs, with a minimum grade of C.
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Model Semester Plan

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student’s academic record and scheduling availability of courses. Prerequisites still apply.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester One</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BSC 2010 &amp; 2010L</td>
<td>Integrated Principles of Biology 1 and Integrated Principles of Biology Laboratory 1 (Critical Tracking)</td>
<td>3-4</td>
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<tr>
<td>BOT 2010C</td>
<td>Introductory Botany (Critical Tracking; Gen Ed Biological Sciences)</td>
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<tr>
<td>IUF 1000</td>
<td>What is the Good Life (Gen Ed Humanities)</td>
<td>3</td>
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<tr>
<td>MAC 1147</td>
<td>Precalculus Algebra and Trigonometry (Critical Tracking; State Core Gen Ed Mathematics)</td>
<td>3-4</td>
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</tbody>
</table>
Agricultural Operations Management

MAC 2233  Survey of Calculus 1 (Critical Tracking; State Core Gen Ed Mathematics) 3
State Core Gen Ed Composition; Writing Requirement; with Diversity or International Elective 1
 Semester Two  Select one:
ACG 2021  Introduction to Financial Accounting (Critical Tracking) 4
Advisor-approved alternative (Critical Tracking)
CHM 2045 & 2045L  General Chemistry 1 and General Chemistry 1 Laboratory (Critical Tracking; State Core Gen Ed Physical Sciences) 4
STA 2023  Introduction to Statistics 1 (Gen Ed Mathematics) 3
State Core Gen Ed Humanities with Diversity or International 3
Gen Ed Physical Sciences 3
 Semester Three  AOM 2520  Global Sustainable Energy: Past, Present and Future 3
Select one:
AEB 2014  Economic Issues, Food and You 3
ECO 2013  Principles of Macroeconomics (Gen Ed Social and Behavioral Sciences) 3
Select one:
PHY 2004 & 2004L  Applied Physics 1 and Laboratory for Applied Physics 1 (Critical Tracking; Gen Ed Physical Sciences) 4
PHY 2020 & PHY 2004L  Introduction to Principles of Physics and Laboratory for Applied Physics 1 (Critical Tracking; Gen Ed Physical Sciences) 4
PSY 2012  General Psychology (Critical Tracking; State Core Gen Ed Social and Behavioral Sciences) 3
 Semester Four  Select one:
AEC 3030C  Effective Oral Communication (Critical Tracking) 3
SPC 2608  Introduction to Public Speaking (Critical Tracking) 3
ENC 2210  Technical Writing (Critical Tracking; Gen Ed Composition) 3
Select one:
ECO 2023  Principles of Microeconomics 1 4
Approved electives 13-14
 Semester Five  AOM 3300  Agricultural and Food Marketing 3-4
AEB 3133  Principles of Agribusiness Management 3-4
AOM 3220  Agricultural Construction and Maintenance 3
AOM 3333  Pesticide Application Techniques 3
 Approved elective 3
 Semester Six  Select one business law, ethics, or human resources course: 3-4
AEB 4085  Agricultural Risk Management and the Law 3
AEB 4123  Agricultural and Natural Resource Law 3
AEB 4126  Agricultural and Natural Resource Ethics 3
BUL 4310  The Legal Environment of Business 3
AOM 4642  Environmental Systems for Agricultural Structures 3
AOM 4643  Environmental Hydrology: Principles and Issues 3
AOM 4933  Professional Practices in Agricultural Operations Management 3
 Approved electives 6
 Semester Seven  Selected 15
 Semester Eight  AOM 4434  Precision Agriculture 3
AOM 4444C  Electrical Power and Instrumentation for Agricultural Operations Management 3
AOM 4455  Agricultural Operations and Systems 3
AOM 4461  Sustainable Agricultural Systems 3
 Approved elective 3
 Approved elective 15
 Total Credits 120

1 Needed if ECO 2013 was taken.

Academic Learning Compact

The agricultural operations management curriculum integrates business and technical knowledge of agricultural operations. Knowledge is developed through formal courses, laboratory experimentation and individual experience. Students will learn to incorporate technical agricultural skills with modern business techniques and to communicate these results effectively in an appropriate presentation style.

Before Graduating Students Must

• Pass the agricultural operations management competency exam, given in three parts. One part will be given in each of the following required courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>AOM 4455</td>
<td>Agricultural Operations and Systems</td>
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<td>AOM 4314C</td>
<td>Power and Machinery Management</td>
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<tr>
<td>AOM 4642</td>
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<tr>
<td>or AOM 4434</td>
<td>Precision Agriculture</td>
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• Achieve satisfactory portfolio assessment in AOM 3073.

• Complete requirements for the baccalaureate degree, as determined by faculty.
Students in the Major Will Learn to
Student Learning Outcomes (SLOs)

Content
1. Describe fundamental concepts, skills and processes in agricultural operations management.
2. Apply fundamental concepts, skills and processes in agricultural operations management.

Critical Thinking
3. Critically evaluate information or data in agricultural operations management.
4. Solve problems in agricultural operations management.

Communication
5. Communicate effectively in written form in a manner appropriate in agricultural operations management.
6. Communicate effectively orally in a manner appropriate in agricultural operations management.

Curriculum Map
I = Introduced; R = Reinforced; A = Assessed

<table>
<thead>
<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
<th>SLO 4</th>
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Assessment Types
- Course modules
- Presentations
- Exams
- Final grades