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 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

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>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Semester One</td>
<td></td>
<td>3-4</td>
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<tr>
<td>Select one:</td>
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<tr>
<td>BSC 2010 &amp; 2010L</td>
<td>Integrated Principles of Biology 1 and Integrated Principles of Biology Laboratory 1 (Critical Tracking)</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>
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<tr>
<td>Select one:</td>
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<td>3-4</td>
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<tr>
<td>MAC 1147</td>
<td>Precalculus Algebra and Trigonometry (Critical Tracking; State Core Gen Ed Mathematics)</td>
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<tr>
<td>MAC 2233</td>
<td>Survey of Calculus 1 (Critical Tracking; State Core Gen Ed Mathematics)</td>
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<tr>
<td>State Core Gen Ed Composition; Writing Requirement; with Diversity or International</td>
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</table>
Elective 1

Semester Two
Select one:
  ACG 2021 Introduction to Financial Accounting (Critical Tracking) 4
  Advisor-approved alternative (Critical Tracking)
CHM 2045 General Chemistry 1 4
& 2045L and General Chemistry 1 Laboratory (Critical Tracking; State Core Gen Ed Physical Sciences)
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)
Select one:
  PHY 2004 Applied Physics 1 and Laboratory for Applied Physics 1 (Critical Tracking; Gen Ed Physical Sciences) 4
  PHY 2004L Introduction to Principles of Physics and Laboratory for Applied Physics 1 (Critical Tracking; Gen Ed Physical Sciences)
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 2013 Principles of Microeconomics 1 4
Approved electives
Approved elective 3

Semester Five
AEB 3300 Agricultural and Food Marketing or MAR 3023 3-4
AEB 3133 Principles of Agribusiness Management or Principles of Marketing 3-4
AOM 3220 Agricultural Construction and Maintenance 3
AOM 3333 Pesticide Application Techniques 3
Approved elective 3

Semester Six
AOM 3734 Irrigation Principles and Practices in Florida 3

Summer After Semester Five
AOM 3734 Irrigation Principles and Practices in Florida 3

Semester Seven
Select one business law, ethics, or human resources course: 3-4
  AEB 4085 Agricultural Risk Management and the Law
  AEB 4123 Agricultural and Natural Resource Law
  AEB 4126 Agricultural and Natural Resource Ethics
  BUL 4310 The Legal Environment of Business
  AOM 4642 Environmental Systems for Agricultural Structures
  AOM 4643 Environmental Hydrology: Principles and Issues
  AOM 4933 Professional Practices in Agricultural Operations Management
Approved electives 6

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

Total Credits 120

1 Needed if ECO 2013 was taken.

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>
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<th>Credits</th>
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<tr>
<td>AOM 4455</td>
<td>Agricultural Operations and Systems or Irrigation Principles and Practices in Florida</td>
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<td>AOM 4314C</td>
<td>Power and Machinery Management or Irrigation Principles and Practices in Florida</td>
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<td>AOM 4642</td>
<td>Environmental Systems for Agricultural Structures or AOM 4434</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>
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<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
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**Assessment Types**

- Course modules
- Presentations
- Exams
- Final grades