# MS Agriculture, Specialization in BioResource and Agricultural Systems

## Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 581</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BRAE 418</td>
<td>Agricultural Systems Management I</td>
<td>4</td>
</tr>
<tr>
<td>BRAE 419</td>
<td>Agricultural Systems Management II</td>
<td>4</td>
</tr>
<tr>
<td>BRAE 599</td>
<td>Thesis in BioResource and Agricultural Engineering</td>
<td>6</td>
</tr>
<tr>
<td>SS 501</td>
<td>Research Planning</td>
<td>4</td>
</tr>
<tr>
<td>STAT 511</td>
<td>Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

## Approved Elective Options

Students may be required to take undergraduate level prerequisites for selected electives. The final elective approval is at the discretion of the students’ graduate committee.

### General
- STAT 513: Applied Experimental Design and Regression Models

### Agricultural and Food Processing Waste Management
- BRAE 435: Drainage
- BRAE 440: Agricultural Irrigation Systems
- BRAE 532: Water Wells and Pumps
- NR/CRP 404: Environmental Law
- NR/CRP 408: Water Resource Law and Policy
- NR 416: Environmental Impact Analysis and Management
- NR 420: Watershed Assessment and Protection
- NR 465: Ecosystem Management

### Renewable Energy
- BRAE 448: Bioconversion
- EE 420: Sustainable Electric Energy Conversion
- EE/PHYS 422: Polymer Electronics Laboratory
- EE 520: Solar-Photovoltaic Systems Design
- ENVE 542: Sustainable Environmental Engineering

### California Production Agriculture and Food Systems
- AEPS 421: Postharvest Technology of Horticultural Crops
- BRAE 432: Agricultural Buildings
- IME 430: Quality Engineering
- ITP 409: Packaging Machinery and Processes

### Precision Agriculture
- AEPS 406: Advanced Weed Management
- AEPS 410: Crop Physiology
- AEPS 423: Advanced Vegetable Science
- AEPS 445: Cropping Systems

### Automation and Mechanization
- BRAE 425: Computer Controls for Agriculture
- IME 416: Automation of Industrial Systems

Any 400 and 500 level courses approved by the student’s graduate committee.

Total units: 45

1. At least half of all units required by the committee as reflected on the formal study plan must be at the 500 level.