### 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>STAT 513</td>
<td>Applied Experimental Design and Regression Models</td>
</tr>
</tbody>
</table>

#### General

- **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

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