## Biological and Agricultural Engineering (MS): Systems Analysis Concentration

### Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>BAE 591</td>
<td>Master's Research Methods I</td>
<td>2</td>
</tr>
<tr>
<td>BAE 592</td>
<td>Master's Research Methods II</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Math / Statistics / Biomathematics Courses</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>The required “Mathematics / Statistics / Biomathematics Courses” are determined in conjunction with the academic committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Elective Courses</strong>¹,²</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>“Elective Courses” are determined in conjunction with the academic committee to meet the 30 total credit hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>30</td>
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</tbody>
</table>

¹ Minimum of 20 credit hours must come from 500-level and above courses

² Maximum 6 hours S/U graded courses

### Concentration Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A minimum of 6 hours of elective courses must be taken from the following courses:</td>
<td>6</td>
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<tr>
<td>BAE 501</td>
<td>Sensors and Controls</td>
<td>3</td>
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<tr>
<td>BAE 427/527</td>
<td>Metabolic Systems Analysis (pending Admin Board approval 2020)</td>
<td>3</td>
</tr>
<tr>
<td>BAE 535</td>
<td>Precision Agriculture Technology</td>
<td>3</td>
</tr>
<tr>
<td>BAE 541</td>
<td>Foundation Tools to Agriculture, Food and Life Sciences Data (pending Admin Board approval 2020)</td>
<td>3</td>
</tr>
<tr>
<td>BAE 542</td>
<td>Advanced Analytics to Agriculture, Food and Life Sciences Data (pending Admin Board approval 2020)</td>
<td>3</td>
</tr>
<tr>
<td>BAE 455/555</td>
<td>R Coding for Data Management and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BAE 565</td>
<td>Environmental and Agricultural Analytics and Modeling</td>
<td>3</td>
</tr>
<tr>
<td>GIS 512</td>
<td>Introduction to Environmental Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>MEA 582</td>
<td>Geospatial Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

### Faculty

#### Full Professors
- Michael D. Boyette
- Michael R. Burchell II
- Jay Jiayang Cheng
- Mari S. Chinn
- Garey Alton Fox
- Scott A. Hale
- William F. Hunt III
- Lingjuan Wang Li
- Gary T. Roberson
- Sanjay Bikram Shah
- Mohamed A. Youssef
- Wengqiao Yuan

#### Associate Professors
- Francois Philippe Birgand
- John J. Classen
- Barbara A. Doll
- Steven George Hall
- Praveen Kolar

#### Assistant Professors
- Celso Francisco Castro Bolinaga
- Grant H. Ellington
- Lucie S. G. Guertault
- Daniela Jones
- Suzanne McKay Leonard
- Chad Ashley Poole
- Natalie G. Nelson Sagues
- Chadi Sayde
- Mahmoud A. N. A. N. Sharara
- Jason Kellam Ward
- Sierra Young

#### Practice/Research/Teaching Professors
- Otto DeBruhl Simmons III

#### Emeritus Faculty
- George Maynard Chescheir III
- Robert O. Evans Jr.
- Garry L. Grabow
- Rodney L. Huffman
Gregory Donald Jennings
Richard W. Skaggs
Jean Spooner
Larry F. Stikeleather
Daniel H. Willits

Adjunct Professors
Christopher R Daubert
Ratna Rani Sharma