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

### Degree Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAE 791</td>
<td>Doctoral Research Methods I</td>
<td>5</td>
</tr>
<tr>
<td>BAE 792</td>
<td>Doctoral Research Methods II</td>
<td></td>
</tr>
<tr>
<td>BAE 885</td>
<td>Doctoral Supervised Teaching</td>
<td></td>
</tr>
<tr>
<td>Mathematics / Statistics / Biomathematics Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Mathematics / Statistics / Biomathematics Courses&quot; are determined in conjunction with the academic committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor Courses</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Students must select a minor, by which courses are determined in conjunction with the academic committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective Courses ¹</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>&quot;Elective Courses&quot; are determined in conjunction with the academic committee to meet the 72 total credit hours</td>
<td></td>
<td></td>
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</tbody>
</table>

Total Hours: 72

¹ Students with a previous Master's Degree are only required to complete 54 total hours

### Concentration Elective Courses

Students must select a minimum of two courses from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAE 501</td>
<td>Sensors and Controls</td>
<td>3</td>
</tr>
<tr>
<td>BAE 442/542</td>
<td>SAS Advanced Analytics for Agriculture, Food, and Life Sciences Data (pending Admin Board approval 2020)</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 715</td>
<td>Geovisualization</td>
<td>3</td>
</tr>
<tr>
<td>GN 758</td>
<td>Microbial Genetics &amp; Genomics</td>
<td>3</td>
</tr>
<tr>
<td>ISE 754</td>
<td>Logistics Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MB 714</td>
<td>Microbial Metabolic Regulation</td>
<td>3</td>
</tr>
<tr>
<td>OR 719</td>
<td>Vector Space Methods in System Optimization</td>
<td>3</td>
</tr>
</tbody>
</table>

### Faculty

#### Full Professors

- Michael D. Boyette
- Michael R. Burchell II
- Jay Jayang 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
- Wenqiao 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
- 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