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

#### Degree Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAE 791</td>
<td>Doctoral Research Methods I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BAE 792</td>
<td>Doctoral Research Methods II</td>
<td></td>
<td></td>
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<tr>
<td>BAE 885</td>
<td>Doctoral Supervised Teaching</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Mathematics / Statistics / Biomathematics Courses</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;Mathematics / Statistics / Biomathematics Courses&quot; are determined in conjunction with the academic committee</td>
<td></td>
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<tr>
<td></td>
<td>Minor Courses</td>
<td>9</td>
<td></td>
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<tr>
<td></td>
<td>Students must select a minor, by which courses are determined in conjunction with the academic committee</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Elective Courses</td>
<td>52</td>
<td></td>
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<tr>
<td></td>
<td>&quot;Elective Courses&quot; are determined in conjunction with the academic committee to meet the 72 total credit hours</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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</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></td>
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<tr>
<td>BAE 501</td>
<td>Sensors and Controls</td>
<td>3</td>
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</tr>
<tr>
<td>BAE 527/427</td>
<td>Precision Agriculture Technology</td>
<td>3</td>
<td></td>
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</tbody>
</table>

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**Faculty**

Geng (Frank) Bai, Assistant Professor  
**Area of Research:** Precision and Digital Agriculture

Francois Philippe Birgand  
Michael D. Boyette  
Michael R. Burchell II  
Celso Francisco Castro Bolinaga  
Jay Jiayang Cheng  
John J. Classen  
Barbara A. Doll  
Grant H. Ellington  
Garey Alton Fox  
Khara Deanne Grieger  
Lucie S. G. Guertault  
Scott A. Hale  
Steven George Hall  
William F. Hunt III  
Daniela Jones  
Praveen Kolar  
Suzanne McKay Leonard  
Chad Ashley Poole  
Gary T. Roberson
Natalie G. Nelson Sagues

Ryan Sartor, Assistant Professor
Area of Research: Bioprocess Engineering

Chadi Sayde
Sanjay Bikram Shah
Mahmoud A. N. A. N. Sharara
Lingjuan Wang Li
Jason Kellam Ward
Lirong Xiang
Sierra Young
Mohamed A. Youssef
Wenqiao Yuan
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

Practice/Research/Teaching Professor
Otto DeBruhl Simmons III

Adjunct Professors
Christopher R Daubert
Sheila Marie Saia
Ratna Rani Sharma

Adjunct Associate Professor
Wesley Mark Porter

Adjunct Assistant Professor
Kristina Hopkins