## BIOSYSTEMS ENGINEERING, PHD

Requirements for Students Matriculating in or before Academic Year 2021-2022. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

### Total Hours: 60

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BAE 5501</td>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>BAE 6101</td>
<td>Teaching Practicum in Biosystems Engineering</td>
<td>1</td>
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<tr>
<td></td>
<td>Advanced Math (if advanced math was not completed in Master’s program)</td>
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**Hours Subtotal** 5

### Specialization and Dissertation

Combination of Dissertation and Specialization to total 55 hours. 55

### Core Courses (By Specialty Area)

- **Machine Systems**
  - BAE 5413 Advanced Instrumentation and Control Systems for Biological Applications

- **Environment and Natural Resources**
  - BAE 6313 Stochastic Methods in Hydrology 1
  - BAE 6333 Fluvial Hydraulics 2
  - BAE 6343 Ground Water Contaminant Transport 3
  - BAE 6520 Problems in Soil and Water Engineering 4

- **Bioprocessing and Biotechnology**
  - BAE 5213 Renewable Energy Engineering
  - BAE 5283 Advanced Bioprocess Engineering
  - BAE 5413 Advanced Instrumentation and Control Systems for Biological Applications

- **Chemical Engineering**
  - CHE 5123 Advanced Chemical Reaction Engineering
  - CHE 5373 Process Simulation
  - CHE 5743 Chemical Engineering Process Modeling

- **Statistics**
  - STAT 5303 Experimental Designs

### Research and Additional Requirements

- BAE 6000 Doctoral Research and Dissertation

**Hours Subtotal** 55

**Total Hours** 60

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1. Prerequisites: BAE 4313 or CIVEN 5843 and STAT 4053.
2. Prerequisites: ENGSC 3233 or equivalent.
3. Prerequisites: AGRON 5583 or CIVEN 5913.
4. Prerequisites: CHEM 1515, BAE 4313 or equivalent.

### Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2021-2022 Doctor of Philosophy (PhD) Degree Program Requirements (http://catalog.okstate.edu/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.