**BIOSYSTEMS ENGINEERING, PHD**

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about Graduate College Academic Regulation 7.0 ([http://catalog.okstate.edu/graduate-college/#70](http://catalog.okstate.edu/graduate-college/#70)).

Total Hours: 60

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<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>Advanced Math (if advanced math was not completed in Master's program)</td>
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<td><strong>Hours Subtotal</strong></td>
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**Specialization and Dissertation**

Combination of Dissertation and Specialization to total 55 hours. 55

**Core Courses (By Specialty Area)**

- **Machine Systems**
  - BAE 5413 Advanced Data Acquisition and Control
- **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 Data Acquisition and Control
- **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

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 2022-2023 Doctor of Philosophy (PhD) Degree Program Requirements ([http://catalog.okstate.edu/](http://catalog.okstate.edu/)). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.