### CHEMICAL ENGINEERING, PHD

**Requirements for Students Matriculating in or before Academic Year 2019-2020.** Learn more about Graduate College Academic Regulation 7.0 [here](http://catalog.okstate.edu/graduate-college).

**Total Hours:** 60 Hours (Beyond the Master’s Degree from Oklahoma State University)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 6703</td>
<td>Research Methods in Chemical Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

**Seminar**

CHE 6010 (Offered for variable credit, 1 credit hour, maximum of 10 credit hours.)

**Hours Subtotal**

6

**Electives**

Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student’s advisor.

**Hours Subtotal**

9

**Thesis**

CHE 6000 Doctoral Thesis

45

**Hours Subtotal**

45

**Total Hours**

60

1 With approval of the student’s advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in CHE 6000; but the number of CHE credits may be no less than 30.

**Total Hours:** 90 Hours (Beyond the Bachelor’s Degree)

<table>
<thead>
<tr>
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<th>Hours</th>
</tr>
</thead>
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<tr>
<td>CHE 5123</td>
<td>Advanced Chemical Reaction Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CHE 5213</td>
<td>Advanced Transport Phenomena</td>
<td>3</td>
</tr>
<tr>
<td>CHE 5743</td>
<td>Chemical Engineering Process Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CHE 5843</td>
<td>Principles of Chemical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CHE 6703</td>
<td>Research Methods in Chemical Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

**Seminar**

CHE 6010 (Offered for variable credit, 1 credit hour, maximum of 10 credit hours.)

**Hours Subtotal**

6

**Electives**

Approved elective (CHE or other) courses, selected by the student, with approval of the student’s advisor.

**Hours Subtotal**

15

**Suggested Elective Courses**

**Fall Semester**

- CHE 5293 Advanced Biomedical Engineering
- CHE 5523 Colloid Processing
- CHE 5273 Basic Physiology and Physiological System Analysis for Engineers
- CHE 5373 Process Simulation
- CHE 5343 Advanced Environmental Engineering
- CHE 5733 Neural Networks

**Spring Semester**

- CHE 5283 Advanced Bioprocess Engineering
- CHE 5633 Stagewise Operations
- CHE 5263 Advanced Biomaterials Science and Engineering
- CHE 5853 Advanced Chemical Process Control
- CHE 5223
- MAE 6233 Turbulent Fluid Dynamics
- BAE 5030 Problems in Biosystems Engineering and Agricultural Technology

**Hours Subtotal**

15

**Thesis**

CHE 6000 Doctoral Thesis

54

**Hours Subtotal**

54

**Total Hours**

90

2 With approval of the student’s advisory committee, additional elective courses may be taken, with a corresponding reduction in required credits in CHE 6000; but the number of CHE credits may be no less than 36.
General Graduate College Requirements

- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Doctor of Philosophy (PhD.) Requirements

- 90 credits beyond the Bachelor’s degree, 60 credits beyond the Master’s degree are required
- At least seventy-five percent of coursework on the Plan of Study must include 5000 and 6000 level courses
- A minimum of 15 hours at the 6000 level with a grade of SR for the doctoral dissertation must be complete. The maximum number of dissertation hours (6000 with a grade of SR) permissible on a Plan of Study must not exceed three-fourths of the total credit hours in the approved graduate degree program
- Credit for all courses on a graduate Plan of Study must have been awarded within 10 years of completion of all degree requirements
- A minimum of 30 in-residence credit hours are required
- Non-Course requirements:
  - Doctoral Candidacy
  - Dissertation Defense
  - Dissertation Submission/Approval