

# CHEMICAL ENGINEERING, PHD

## Requirements for Students Matriculating in or before Academic Year

**2023-2024.** Learn more about Graduate College Academic Regulation 7.0 (<http://catalog.okstate.edu/graduate-college/#70>).

**Total Hours:** 60 (Beyond the Bachelor's Degree)

Code	Title	Hours
<b>Core Courses</b>		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
Two hours from:		2
CHE 5302	Introduction to Science and Engineering Research	
OR		
CHE 5303	Introduction to Science and Engineering Research	
<b>Hours Subtotal</b>		<b>14</b>
<b>Seminar</b>		
Seven hours from:		7
CHE 6010	Chemical Engineering Seminar	
<b>Hours Subtotal</b>		<b>7</b>
<b>Electives</b>		
Approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		15
<i>Suggested Elective Courses</i>		
CHE 5073	Tissue Engineering	
CHE 5133	Catalysis and Photocatalysis	
CHE 5283	Advanced Bioprocess Engineering	
CHE 5293	Advanced Biomedical Engineering	
CHE 5323	Electrochemical Engineering	
CHE 5373	Process Simulation	
CHE 5493	Molecular Modeling and Simulation	
CHE 5523	Colloid Processing	
CHE 5603	Membrane Separations	
CHE 5753	Applied Numerical Computing for Scientists and Engineers	
CHE 5273	Basic Physiology and Physiological System Analysis for Engineers	
<b>Hours Subtotal</b>		<b>15</b>
<b>Thesis</b>		
CHE 6000	Doctoral Thesis <sup>1</sup>	24
<b>Hours Subtotal</b>		<b>24</b>
<b>Total Hours</b>		<b>60</b>

**Total Hours:** 30 (Beyond the Master's Degree from Oklahoma State University, 60 hours on the Plan of Study)

Code	Title	Hours
<b>Seminar</b>		
Four hours from:		4
CHE 6010	Chemical Engineering Seminar	
<b>Hours Subtotal</b>		<b>4</b>
<b>Electives</b>		
Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		9
<b>Hours Subtotal</b>		<b>9</b>
<b>Thesis</b>		
CHE 6000	Doctoral Thesis <sup>1</sup>	17
<b>Hours Subtotal</b>		<b>17</b>
<b>Total Hours</b>		<b>30</b>

<sup>1</sup>

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 15.

**Total Hours:** 42 (Beyond the Master's Degree, 60 hours on the Plan of Study)<sup>2</sup>

Code	Title	Hours
<b>Core Courses</b>		
CHE 5123	Advanced Chemical Reaction Engineering	3
CHE 5213	Advanced Transport Phenomena	3
CHE 5743	Chemical Engineering Process Modeling	3
CHE 5843	Principles of Chemical Engineering Thermodynamics	3
Two hours from:		2
CHE 5302	Introduction to Science and Engineering Research	
OR		
CHE 5303	Introduction to Science and Engineering Research	
<b>Hours Subtotal</b>		<b>14</b>
<b>Seminar</b>		
Six hours from:		6
CHE 6010	Chemical Engineering Seminar	
<b>Hours Subtotal</b>		<b>6</b>
<b>Electives</b>		
Graduate-approved elective (CHE or other) courses, selected by the student, with approval of the student's advisory committee.		6
<b>Hours Subtotal</b>		<b>6</b>
<b>Thesis</b>		
Sixteen hours from:		16
CHE 6000	Doctoral Thesis	
<b>Hours Subtotal</b>		<b>16</b>
<b>Total Hours</b>		<b>42</b>

<sup>2</sup>

With at least 18 transfer credit hours, transfer credits must have grades of "B" or better, be less than ten years old at the time of the student's graduation, and approved by the Graduate Program Advisory Committee.

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

Learn more about Graduate College 2023-2024 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.