

Date Submitted: 07/30/19 1:39 pm

## Viewing: **CHEGPH : Engineering (Chemical Engineering), Doctor of Philosophy**

Last approved: 05/21/19 1:01 pm

Last edit: 08/05/19 4:06 pm

Changes proposed by: chesteki

Catalog Pages Using  
this Program

[Chemical Engineering\\_\(CHEG\)](#)

Submitter: 575-3416      User ID: chesteki      Phone:

Program Status      Active

Academic Level      Graduate

Type of proposal      Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Are you adding a concentration?

No

Are you adding or modifying a track?

No

Are you adding or modifying a focused study?

No

Effective Catalog Year      Fall 2020

College/School Code

College of Engineering (ENGR)

### In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Program Assessment and Review
4. Registrar Initial
5. Institutional Research
6. CHEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. ENGR Dean
10. Global Campus
11. Provost Review
12. University Course and Program Committee
13. Graduate Committee
14. Faculty Senate
15. Provost Final
16. Provost's Office-- Notification of Approval
17. Registrar Final
18. Catalog Editor Final

### Approval Path

1. 08/02/19 1:52 pm  
Norman Dennis (ndennis): Approved for ENGR Dean Initial
2. 08/02/19 1:55 pm  
Pat Koski (pkoski):

Department Code  
 Department of Chemical Engineering (CHEG)  
 Program Code CHEGPH  
 Degree Doctor of Philosophy  
 CIP Code

- Approved for GRAD  
 Dean Initial
3. 08/05/19 4:07 pm  
 Alice Griffin  
 (agriffin): Approved  
 for Director of  
 Program  
 Assessment and  
 Review
  4. 08/09/19 3:31 pm  
 Lisa Kulczak  
 (lkulcza): Approved  
 for Registrar Initial
  5. 08/09/19 3:35 pm  
 Gary Gunderman  
 (ggunderm):  
 Approved for  
 Institutional  
 Research
  6. 08/23/19 9:39 am  
 Dave Ford  
 (daveford):  
 Approved for CHEG  
 Chair
  7. 08/29/19 1:23 pm  
 Manuel Rossetti  
 (rossetti): Approved  
 for ENGR  
 Curriculum  
 Committee
  8. 08/29/19 1:25 pm  
 Norman Dennis  
 (ndennis): Approved  
 for ENGR Faculty
  9. 08/29/19 1:26 pm  
 Norman Dennis  
 (ndennis): Approved  
 for ENGR Dean
  10. 09/03/19 4:22 pm  
 Suzanne Kenner

- (skenner): Approved for Global Campus
- 11. 09/04/19 7:41 am  
Terry Martin  
(tmartin): Approved for Provost Review
- 12. 09/30/19 4:59 pm  
Alice Griffin  
(agriffin): Approved for University Course and Program Committee
- 13. 10/17/19 3:10 pm  
Pat Koski (pkoski): Approved for Graduate Committee

### History

1. Mar 21, 2016 by chesteki
2. May 17, 2016 by Lisa Kulczak (lkulcza)
3. May 21, 2019 by chesteki

14.0101 - Engineering, General.

Program Title

Engineering (Chemical Engineering), Doctor of Philosophy

Program Delivery

Method

On Campus

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

No

What are the total hours needed to 72

complete the program?

## Program Requirements and Description

### Requirements

**Requirements for the Ph.D. Degree:** At least ~~33~~ **42** hours of course work and ~~39~~ **30** hours of dissertation as follows:

<u>MATH 5423</u>	Introduction to Partial Differential Equations	3
<u>CHEG 5113</u>	Transport Processes I	3
<u>CHEG 5133</u>	Advanced Reactor Design	3
<u>CHEG 5333</u>	Advanced Thermodynamics	3
<u>CHEG 6123</u>	Transport Processes II	3
<del>6 hours of a 5000 or 6000 level CHEG course</del>		<del>6</del> <b>6</b>
<del>18 hours of any 5000 or 6000 level technical electives</del>		<del>18</del> <b>18</b>
<b>3 hours of a 5000 or 6000 level CHEG course</b>		<b>3</b>
<b>12 hours of any 5000 or 6000 level technical electives</b>		<b>12</b>
<u>CHEG 5801</u>	Graduate Seminar (this should be taken every semester)	3
<u>CHEG 700V</u>	Doctoral Dissertation	<b>39</b>

Research resulting in successfully defended dissertation and assisting in departmental teaching are required.

Total Hours 72

1 International or non-engineering BS students must take a design course as one of their electives in addition to the above list.

Students should also be aware of Graduate School requirements with regard to [doctoral degrees](#).

### Are Similar Programs available in the area?

No

Estimated Student Demand for Program 20

Scheduled Program ~~2022-2023~~ **2023**

Review Date

Program Goals and Objectives

**Program Goals and Objectives**

### Program Goals and Objectives

The educational objective of the Chemical Engineering graduate program is to prepare students for advanced roles in the profession through a combination of planned coursework and research activities so that graduates are equipped to address present and future challenges in such areas as research, teaching, management, and entrepreneurship.

### Learning Outcomes

#### Learning Outcomes

The educational outcomes of our graduate program are to assure that each student has had

an opportunity to:

- a. Critically analyze meaningful and technologically relevant data, and for thesis students, plan and safely conduct research;
- b. Demonstrate proficiency in fundamental mathematics and chemical engineering problem solving;
- c. Understand professional and ethical responsibility; and
- d. Develop and use effective written and oral communication skills.

### Description and justification of the request

Description of specific change	Justification for this change
<p>CHEG elective requirement was reduced from 6 to 3 hours.</p> <p>Technical elective hours were reduced from 18 to 12 hours.</p> <p>Dissertation hours were increased by 9 hours to maintain the total number of required hours at 72.</p>	<p>In order to increase the focus on research experience, the number of course hours is being decreased. This was decided after a comprehensive examination of other domestic Chemical Engineering PhD course requirements.</p>

### Upload attachments

### Reviewer Comments

**Alice Griffin (agriffin) (08/05/19 4:05 pm):** In the program requirements field, I changed 42 hours to 33 hours of course work. And changed 30 hours of dissertation to 39 hours with permission from submitter.

**Alice Griffin (agriffin) (08/05/19 4:06 pm):** Updated program review date to include academic year.