

Chemical Engineering (PhD)

Degree Requirements

Code	Title	Hours
Required Courses		25
CHE 502	Chemical Engineering Laboratory Safety and Professionalism	
CHE 701	Introduction to Chemical Engineering Research	
CHE 702	Chemical Engineering Research Proposition	
CHE 711	Chemical Engineering Process Modeling	
CHE 713	Thermodynamics I	
CHE 715	Transport Phenomena	
CHE 717	Chemical Reaction Engineering	
CHE 801	Seminar (8 credit hours required)	
Additional Courses		6
Select six additional credit hours at 500 or 700 level in any technical discipline approved in conjunction with the academic committee		
Dissertation Research Course		6
CHE 895	Doctoral Dissertation Research	
Elective Courses		35
"Elective Courses" are determined in conjunction with the academic committee to meet the 72 total credit hours		
Preliminary Exam		
The Preliminary Exam is taken in the 4th semester, however, it requires an annual progress report		
Total Hours		72

Elective Courses

Code	Title	Hours
CHE 543	Polymer Science and Technology	
CHE 551	Biochemical Engineering	
CHE 560	Chemical Processing of Electronic Materials	
CHE 562	Fundamentals of Bio-Nanotechnology	
CHE 563	Fermentation of Recombinant Microorganisms	
CHE 568	Conventional and Emerging Nanomanufacturing Techniques and Their Applications in Nanosystems	
CHE 577	Advanced Biomufacturing and Biocatalysis	
CHE 596	Special Topics in Chemical Engineering (Colloid Science & Nanoscale Engineering)	
CHE 596	Special Topics in Chemical Engineering (Green Chemical Engineering)	
CHE 596	Special Topics in Chemical Engineering (Molecular Cell Engineering)	
CHE 596	Special Topics in Chemical Engineering (Chemical Process Engineering)	
CHE 596	Special Topics in Chemical Engineering (Polymer Rheology and Processing)	
CHE 596	Special Topics in Chemical Engineering (Drug Delivery Concepts)	

CHE 761	Polymer Blends and Alloys
CHE 775	Multi-Scale Modeling of Matter

Faculty

Full Professors

Ruben G. Carbonell

Michael David Dickey

Peter S. Fedkiw

Jan Genzer

Christine S. Grant

Carol K. Hall

Jason M. Haugh

Hasan Jameel

Robert M. Kelly

Saad A. Khan

Fanxing Li

Gregory N Parsons

Walter James Pfaendtner

Behnam Pourdeyehimi

Balaji M. Rao

Sindee Lou Simon

Richard J. Spontak

Orlin Dimitrov Velev

Phillip R. Westmoreland

Associate Professors

Milad Abolhasani

Adriana San Miguel Delgadillo

Chien Ching Lilian Hsiao

Albert Jun Qi Keung

Stefano Menegatti

Erik Emilio Santiso

Qingshan Wei

Assistant Professors

Nathan Crook

Artem Rumyantsev

Wentao Tang

Practice/Research/Teaching Professors

Cristina Boi

Lisa G. Bullard

Matthew Ellis Cooper

Kirill Efimenko

Gary Louis Gilleskie

Hassan Golpour

Gregory McKenna

Luke Neal

John H. van Zanten

Adjunct Faculty

Anthony L. Andrady

Orlando J. Rojas

Emeritus Faculty

Joseph M. DeSimone

Richard M. Felder

Michael Carl Flickinger

Keith Gubbins

Harold B. Hopfenberg

Harold Henry Lamb

Hubert Winston