Chemical Engineering (PhD)

Degree Requirements

Code	Title	Hours	Counts towards
Required Courses		**16**	
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		
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		**44**	
"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	Counts towards
CHE 543	Polymer Science and Technology	3	
CHE 551	Biochemical Engineering	3	
CHE 560	Chemical Processing of Electronic Materials	3	
CHE 562	Fundamentals of Bio-Nanotechnology	3	
CHE 563	Fermentation of Recombinant Microorganisms	2	
CHE 568	Conventional and Emerging Nanomanufacturin Techniques and Their Applications in Nanosystems	3	
CHE 577	Advanced Biomanufacturing and Biocatalysis	3	
CHE 596	Special Topics in Chemical Engineering (Colloid Science & Nanoscale Engineering)	1-3	
CHE 596	Special Topics in Chemical Engineering (Green Chemical Engineering)	1-3	
CHE 596	Special Topics in Chemical Engineering (Molecular Cell Engineering)	1-3	
CHE 596	Special Topics in Chemical Engineering (Chemical Process Engineering)	1-3	
CHE 596	Special Topics in Chemical Engineering (Polymer Rheology and Processing)	1-3	
CHE 596	Special Topics in Chemical Engineering (Drug Delivery Concepts)	1-3	
CHE 761	Polymer Blends and Alloys	3	
CHE 775	Multi-Scale Modeling of Matter	3	

Faculty

Full Professors

Milad Abolhasani

Ruben G. Carbonell

Michael David Dickey

Peter S. Fedkiw

Jan Genzer

Harvinder Gill

Christine S. Grant

Carol K. Hall

Jason M. Haugh

Hasan Jameel

Robert M. Kelly

Saad A. Khan

Fanxing Li

Gregory N Parsons

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Associate Professors

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Stefano Menegatti

Erik Emilio Santiso

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Assistant Professors

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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

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Keith Gubbins

Harold B. Hopfenberg

Harold Henry Lamb

Phooi K. Lim

Steven W. Peretti

Hubert Winston