

Chemical Engineering (MR)

Degree Requirements

Code	Title	Hours	Counts towards
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Required Courses

12

CHE 711	Chemical Engineering Process Modeling		
CHE 713	Thermodynamics I		
CHE 715	Transport Phenomena		
CHE 717	Chemical Reaction Engineering		

Elective Courses

18

Select a minimum of six elective courses approved in conjunction with the academic committee

CHE 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 Nanomanufacturing Techniques and Their Applications in Nanosystems	3	
CHE 577	Advanced Biomanufacturing and Biocatalysis	3	

CHE 596	Special Topics in Chemical Engineering (Core Chemical Engineering Concepts I (required of all non ChE majors; not available for others))	1-3
CHE 596	Special Topics in Chemical Engineering (Core Chemical Engineering Concepts II (required of all non ChE majors; not available for others))	1-3
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 597	Chemical Engineering Projects	1-3
CHE 761	Polymer Blends and Alloys	3

CHE 775	Multi-Scale Modeling of Matter	3
MA 501	Advanced Mathematics for Engineers and Scientists I	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
 Walter James Pfaendtner
 Behnam Pourdeyhimi
 Balaji M. Rao
 Sindee Lou Simon
 Richard J. Spontak
 Orlin Dimitrov Velev
 Phillip R. Westmoreland

Associate Professors

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
 Phooi K. Lim
 Steven W. Peretti
 Hubert Winston