# Chemical Engineering (PhD)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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<tbody>
<tr>
<td><strong>Required Courses</strong></td>
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</tr>
<tr>
<td>CHE 701</td>
<td>Introduction to Chemical Engineering Research</td>
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<td>CHE 702</td>
<td>Chemical Engineering Research Proposition</td>
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<td>CHE 711</td>
<td>Chemical Engineering Process Modeling</td>
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<td>CHE 713</td>
<td>Thermodynamics</td>
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<td>CHE 715</td>
<td>Transport Phenomena</td>
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<td>CHE 717</td>
<td>Chemical Reaction Engineering</td>
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<td><strong>Additional Courses</strong></td>
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<td><strong>Dissertation Research Course</strong></td>
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<tr>
<td>CHE 761</td>
<td>Advanced Biomanoufacturing and Biocatalysis</td>
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<tr>
<td>CHE 775</td>
<td>Multi-Scale Modeling of Matter</td>
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<td><strong>Elective Courses</strong></td>
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<tr>
<td>CHE 543</td>
<td>Polymer Science and Technology</td>
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<td>CHE 551</td>
<td>Biochemical Engineering</td>
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<td>CHE 560</td>
<td>Chemical Processing Of Electronic Materials</td>
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<td>CHE 562</td>
<td>Fundamentals of Bio-Nanotechnology</td>
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<td>CHE 563</td>
<td>Fermentation of Recombinant Microorganisms</td>
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<td>CHE 568</td>
<td>Conventional and Emerging Nanom manufactured Techniques and Their Applications in Nanosystems</td>
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<td>CHE 576</td>
<td>Special Topics in Chemical Engineering (Green Chemical Engineering)</td>
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<tr>
<td>CHE 596</td>
<td>Special Topics in Chemical Engineering (Molecular Cell Engineering)</td>
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<td>Special Topics in Chemical Engineering (Chemical Process Engineering)</td>
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<tr>
<td>CHE 596</td>
<td>Special Topics in Chemical Engineering (Polymer Rheology and Processing)</td>
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<td>CHE 761</td>
<td>Polymer Blends and Alloys</td>
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<td>CHE 775</td>
<td>Multi-Scale Modeling of Matter</td>
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</table>

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Elective Courses: Any technical discipline approved in conjunction with the academic committee.
Faculty

Full Professors

Ruben G. Carbonell
Joseph M. DeSimone
Michael David Dickey
Peter S. Fedkiw
Jan Genzer
Christine S. Grant
Keith E. Gubbins
Carol K. Hall
Jason M. Haugh
Hasan Jameel
Robert M. Kelly
Saad A. Khan
Harold Henry Lamb
Fanxing Li
Phooi K. Lim
Gregory N Parsons
Behnam Pourdeyhimi
Balaji M. Rao
Richard J. Spontak
Orlin Dimitrov Velev
Phillip R. Westmoreland

Associate Professors

Chase Beisel
Steven W. Peretti
Erik Emilio Santiso

Assistant Professors

Milad Abolhasani
Nathan Crook
Chien Ching Lilian Hsiao
Albert Jun Qi Keung
Stefano Menegatti
Adriana San Miguel Delgadillo

Qingshan Wei

Practice/Research/Teaching Professors

Lisa G. Bullard
Matthew Ellis Cooper
Kirill Efimenko
Gary Louis Gilleskie
Luke Neal
John H. van Zanten

Emeritus Faculty

Richard M. Felder
Michael Carl Flickinger
Harold B. Hopfenberg
David Frederick Ollis
Hubert Winston

Adjunct Faculty

Anthony L. Andrady
Christina Boi
Eric Muller Gomez
Raghubir P. Gupta
Patrick V. Gurgel
Michael R. Ladisch
Gregory B. McKenna
Orlando J. Rojas
Martin Schoen
Sindee Lou Simon
Malgorzata Sliwinska-Bartowiak
Simeon D. Stoyanov