

Chemical & Materials Engineering Department (ChME) Overview

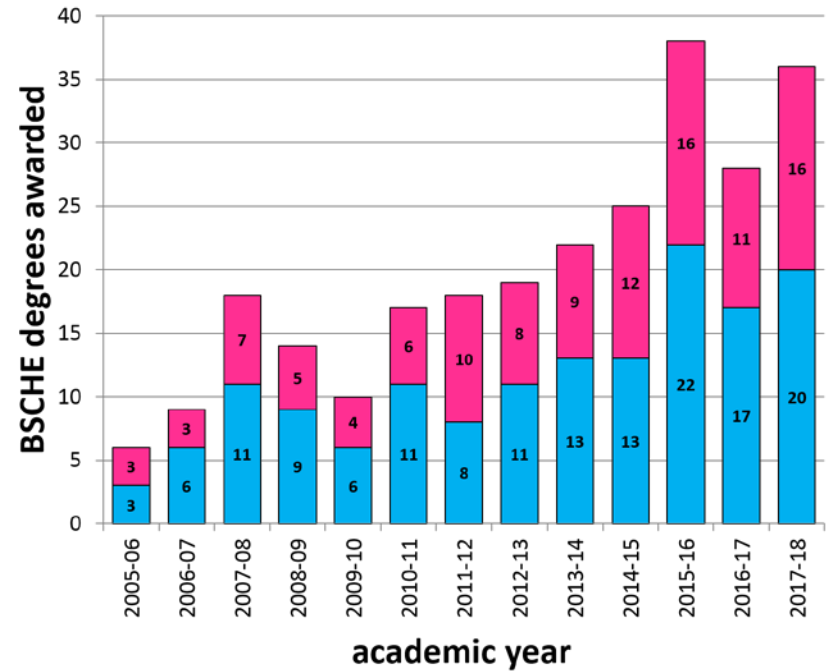
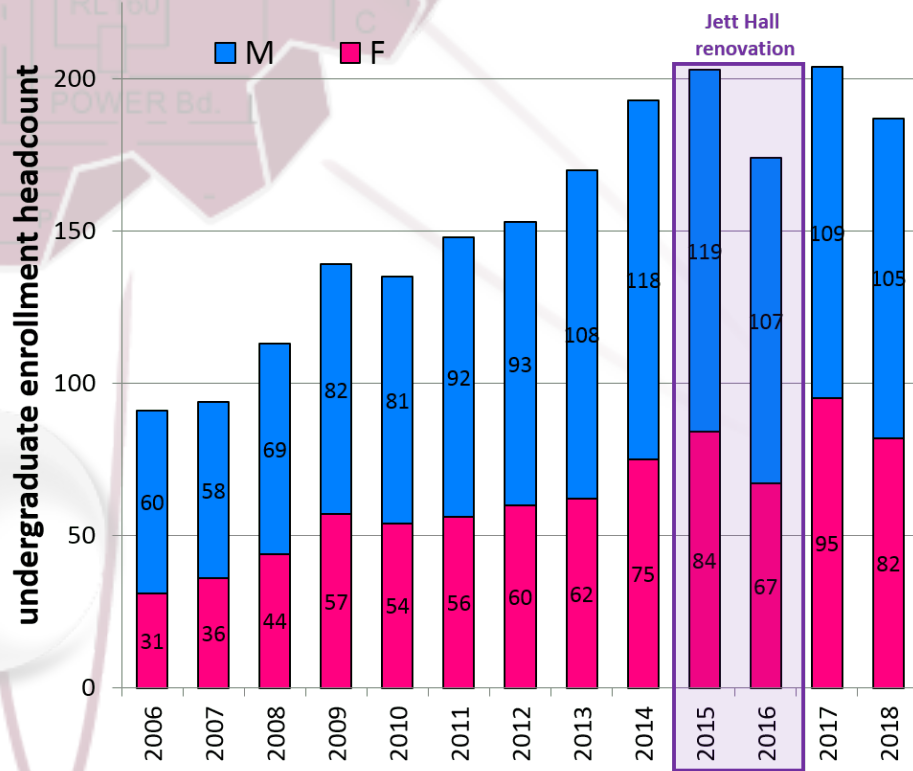
Meng Zhou

Mission Statement

The New Mexico State University Chemical & Materials Engineering Department prepares **BS, MS, and PhD** graduates to successfully and safely practice the chemical engineering profession, to continue lifelong personal and professional development, and to contribute to the betterment of their communities and society.

The department engages in scholarly activity that advances scientific knowledge and technology in the field of chemical engineering, engaging students in that work and providing outreach in its areas of expertise to the community, state, and public in accord with the mission of the College of Engineering and the land grant mission of the University.

Undergraduate Enrollment/Graduation



ChME Faculty (10) and Staff (2)

- **Dr. David Rockstraw: Department Head, Professor, Bob Davis Distinguished Professor, Distinguished Achievement Professor**
- **Dr. Martha Mitchell, Associate Department Head, Professor**
- **Dr. Paul Andersen: Associate Professor**
- **Dr. Jessica Houston: Associate Professor**
- **Dr. Hongmei Luo: Associate Professor, Luke Barry Shires Endowed Professorship (expected to be promoted to Professor)**
- **Dr. Thomas Manz: Associate Professor**
- **Dr. Catherine Brewer: Assistant Professor, John Kaichiro Nakayama and Tome Miyaguchi Nakayama Endowed Professor (expected to be promoted to Associate Professor in Fall 2019)**
- **Dr. Reza Foudazi: Assistant Professor (expected to be promoted to Associate Professor in Fall 2019)**
- **Dr. Umakanta Jena: Assistant Professor (Fall 2016)**
- **Dr. Meng Zhou: Assistant Professor (Fall 2017)**

CHME Research Area

- **Energy & Water:** Paul Anderson, Hongmei Luo, Meng Zhou, David Rockstraw, Catherine Brewer, Reza Foudazi, Umakanta Jena
- **Biofuel & Biomass:** Catherine Brewer, David Rockstraw, Umakanta Jena
- **Biomedical and Bioinstrument:** Jessica Houston
- **Catalyst & Catalysis:** Thomas Manz, Hongmei Luo, Meng Zhou, David Rockstraw
- **Nanomaterials:** Hongmei Luo, Meng Zhou, Thomas Manz
- **Soft Matter:** Reza Foudazi
- **Thin Films:** Hongmei Luo
- **Computational:** Thomas Manz, Martha Mitchell

CHME Programs

- BS, MS, PhD
- Accelerated MS
- Combined BS/MBA Program
- Minors: Brewery Engineering
Materials Engineering
Nuclear Chemical Engineering
Pre-Law in Intellectual Property
Pre-Medicine Studies
Biomedical Engineering
Computational Engineering

Engineering Physics External Advisory Board Meeting

April 12 & 13, 2019

2019-2020 BSChE Chemical Engineering Curriculum (chme.nmsu.edu)



total cr
hrs
124



freshman	CHEM 115 Inorganic Chem I	4		General Educ Creative & Fine Arts	3	CHME 101 Intro CHME calcs	2	ENGL 111G Rhetoric/Composition	4	MATH 191 Calculus I	4	17	
	CHEM 116 Inorganic Chem II	4		PHYS 215 Engr Physics I	3	PHYS 215L Engr Physics Lab I	1	CHME 102 Material Balances	2	COMM 265G Oral Communication	3	MATH 192 Calculus II	4
sophomore	CHEM 313 Organic Chem I	3	PHYS 216 Engr Physics II	3	PHYS 216L Engr Physics Lab II	1	CHME 201 Energy Balances	3	ENGL 218G ❖ Technical Writing	3	MATH 291 Calculus III	3	16
	CHEM 314 Organic Chem II	3	CHEM 315 Organic Chem Lab	2	CHME 303 Thermodynamics	4	CHME 305 Fluid Flow	3	I E 311 Engr Data Analysis	3	MATH 392 Differential Eqns	3	18
junior	CHEM 433 Physical Chem	3		CHME 361 Engr Materials	3	CHME 306 Heat/Mass Transfer	4	CHME 323L Transport/Instrument Lab	1	CHME 392 Numerical Methods	3	14	
	General Educ Social/Behavioral Sci	3	VWW View a Wider World	3	CHME 352L Unit Ops Simulation	1	CHME 307 Staged Operations	3	CHME 324L Unit Ops Lab I	1	CHME 441 Chem Reaction Engr	3	14
senior	CHME 448 Industrial Safety	3	I E 365 Quality Control	3	CHME 452L Process Simulation	1	CHME 412 Dynamics/Control	3	CHME 423L Unit Ops Lab II	1	CHME 452 Engr Economics	3	14
	General Educ Humanities	3	CHME Elective Approved Elective	3	CHME 455L Plant Simulation	1	CHME Elective Approved Elective	3	CHME 424L Dynamics/Control Lab	1	CHME 455 Chem Plant Design	3	14

Total credit hours dropped from **136** (2018-2019) to **124** (2019-2020):
removed ENGR 100, BIOL 211G, and two General Education courses

AICHE Student Chapter (American Institute of Chemical Engineers)

Outreach services to the campus and community



Public school science demos

