

CHEMICAL ENGINEERING - MASTER OF ENGINEERING IN CHEMICAL ENGINEERING (ONLINE)

The Master of Engineering in Chemical Engineering is a 30 credit hour coursework and/or project-based degree with flexibility of program design for professionals seeking advanced coursework in chemical engineering. Individual degree plans are based on consultation between the student and their advisor. Master of Engineering requirements are as follows:

Prefix	Title	Credits
CHME Coursework		
A minimum of 15 credits of CHME 500+ courses (courses 450+ may also count up to 12 credits):		15
<i>Open Electives</i>		
Students are expected to take an additional minimum of 15 credits of electives from any areas such as chemical engineering, other engineering, business, economics, fundamental sciences, environmental sciences, etc., to be consistent with their personal ME theme or emphasis.		15
Optional Engineering Project Sequence or CHME Coursework ¹		
CHME 595	Chemical Process Design and Business Analysis	
CHME 596	Chemical Process Industries Research	
CHME 597	Advanced Chemical Process Industry Analysis	
Total Credits		30

¹ Students will define and execute an engineering project through their employer while taking the following 3-semester course sequence. This may replace 6 credit hours of CHME coursework.

Prefix	Title	Credits
First Year		
Fall		
CHME Elective		3
CHME Elective		3
CHME Elective		3
Credits		9
Spring		
CHME Elective		3
CHME Elective		3
Open Elective ¹		3
Credits		9
Second Year		
Fall		
Open Elective ¹		3
Open Elective ¹		3
Open Elective ¹		3
Credits		9
Spring		
Open Elective ¹		3
Credits		3
Total Credits		30

¹ Students are expected to take a minimum of 15 credits of open electives from any areas such as chemical engineering, other engineering, business, economics, fundamental sciences, environmental sciences, etc., to be consistent with their personal ME theme or emphasis.

² Students interested in a Chemical Process Industries emphasis may replace 6 credits of courses with the following sequence: CHME 595 Chemical Process Design and Business Analysis, CHME 596 Chemical Process Industries Research, CHME 597 Advanced Chemical Process Industry Analysis.

MAP Requirements

- The Graduate School allows qualified junior or senior students to substitute its graduate courses for required or elective courses in an undergraduate degree program and then subsequently count those same course as fulfilling graduate requirements in a related graduate program.
- Undergraduate students may apply for acceptance to the accelerated master's program after completing 60 semester hours of undergraduate coursework of which a minimum of 25 semester credit hours must be completed at NMSU.
- The grade point average must be at a minimum of 2.75.

Students must receive a grade of B or higher in this coursework to be counted for graduate credit. If a grade of B- or lower is earned, it will not count toward the graduate degree.

Accepted MAP Courses

The following courses are accepted for use in the MAP program. Other courses may be considered after a consultation with the program advisor.

Prefix	Title	Credits
CHME 451	Intellectual Property for Engineers and Scientists	3
CHME 452	Chemical Process Design & Economic Evaluation	3
CHME 455	Chemical Plant Design	3
CHME 455 L	Chemical Plant Simulation	1
CHME 461	Calculation of Material and Molecular Properties	3
CHME 464	Polymer Science & Engineering	3
CHME 467	Nanoscience and Nanotechnology	3
CHME 470	Introduction to Nuclear Energy	3
CHME 471	Health Physics	3
CHME 474	Power Plant Design	3
CHME 476	Nuclear Fuel Cycles	3
CHME 478	Electrochemistry: Basics & Applications	3
CHME 479	Corrosion and Degradation of Materials	3
CHME 481	Biomedical Engineering and Engineering Healthcare	3
CHME 486	Biofuels	3
CHME 495	Brewing Science & Engineering	3
CHME 495 L	Brewing Science & Technology Lab	1
CHME 501	Graduate Thermodynamics for Chemical Engineers	3
CHME 506	Graduate Transport Phenomena(s)	3
CHME 516	Graduate Numerical Methods in Chemical Engineering	3
CHME 542	Graduate Reactor Analysis and Design (s)	3
CHME 548	Industrial Safety	3

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CHME 564	Polymer Science & Engineering	3
CHME 565	Rheology and Viscoelasticity	3
CHME 567	Nanoscience and Nanotechnology	3
CHME 570	Introduction to Nuclear Energy	3
CHME 571	Health Physics	3
CHME 574	Power Plant Design	3
CHME 576	Nuclear Fuel Cycles	3
CHME 578	Electrochemistry: Basics & Applications	3
CHME 591	Graduate Special Topics	1-3
CHME 593	Graduate Special Projects	1-3
CHME 594	Professional Communication in Chemical Engineering	2
CHME 595	Chemical Process Design and Business Analysis	3
CHME 596	Chemical Process Industries Research	1
CHME 597	Advanced Chemical Process Industry Analysis	2