

List of Engineering Electives for Chemical Engineering:

AME 300: Instrumentation Laboratory
AME 313: Aerospace/Mechanical Engineering Laboratory
AME 324A: Mechanical Behavior of Engineering Materials
AME 324B: Engineering Component Design
AME 442A: HVAC System Design
AME 442A: Advanced HVAC System Analysis and Design
AME 451: Vehicle Dynamics
AME 457: Orbital Mechanics and Space Flight
AME 480: Introduction to Nuclear Engineering
ATMO 469B/569B: Air Pollution II – Aerosols
BE 385: Precision Observation with Drones
BE 455: Soil and Water Resources Engineering
BE 475A: Applied Plant Physiology
BE 479: Applied Instrumentation for Controlled Environment Agriculture
BE 482: Integrated Engineered Solutions in the Food-Water-Energy Nexus
BME 416: Biomedical Imaging
CE 381: Construction Engineering Management
CE 445: Geoenvironmental Engineering
CHEE 370R: Environmental Water Engineering
CHEE 400R: Water Chemistry for Engineers
CHEE 412: Electrochemical Engineering
CHEE 415: Microelectronics Manufacturing and the Environment
CHEE 435: Corrosion and Degradation
CHEE 436: Engineering Innovation
CHEE 437: Surface Science
CHEE 474: Fate and Transport Processes in Environmental Engineering
CHEE 476A: Water Treatment System Design
CHEE 476B: Wastewater Treatment Design System
CHEE 478: Introduction to Hazardous Waste Management CHEE 454/554: Law for Engineers and Scientists
CHEE 471/571: Rheology: Principles and Applications
CHEE 481A/581A: Engineering of Biological Processes (only use one time on your advisement report)
CHEE 481B/581B: Cell and Tissue Engineering
CHEE 482/582: Analysis of Emerging Environmental Contaminants
CHEE 483/583: Introduction to Polymeric Materials
CHEE 487: Topics in Transport Phenomena
CHEE 489/589: Trends in Nanomedicine Engineering – Fundamentals of Therapeutics and Drug Delivery Systems (only use one time on advisement report)

Only 3 units total from the following courses may count toward your degree (the honors section of CHEE 391 and 491 has to be set up as CHEE 399H and 499H please let the CHEE advisor know if you will be a honors preceptor:

- CHEE 391 or CHEE 399H: Preceptorship
- CHEE 399 or CHEE 399H: Independent Study
- CHEE 491 or CHEE 499H: Preceptorship
- CHEE 499 or CHEE 499H: Independent Study

List of Engineering Electives for Chemical Engineering:

ECE 304: Design of Electronic Circuits
ECE 320A: Circuit Theory
ECE 330B: Computational Techniques
ECE 351C: Electronic Circuits
ECE 373: Object-Oriented Software Design
ECE 446: Semiconductor Processing
ECE 474A: Computer-Aided Design
ENGR 452/ENGR 552: Globalization, Sustainability and Innovation
ENGR 498A: Cross-disciplinary Design (if not used as senior design)
ENGR 498B: Cross-disciplinary Design (if not used as senior design)
MNE 411: Mineral Processing
MNE 422: Engineering Sustainable Development
MSE 331R: Fundamentals of Materials for Engineers
MSE 434: Electrical and Optical Properties of Materials
MSE 446: Semiconductor Processing
MSE 450: Materials Selection for the Environment
MSE 455: Physical Metallurgy and Processing of Alloys
MSE 460: Materials Science in Polymers
MSE 461: Biological and Synthetic Materials
MSE 462: Materials Aspect/Composite Materials
MSE 471: The Formation and Structure of Glass
MSE 471L: The Formation and Structure of Glass Lab
MSE 480: Advanced Characterization Methods in Materials Science and Engineering
MSE 550: Materials Selection for the Environment
MSE 562: Materials Aspects of Composite Materials
SIE 321: Probabilistic Models in Operations Research
SIE 340: Deterministic Operations Research
SIE 406: Quality Engineering
SIE 408: Reliability Engineering
SIE 410A: Human Factors & Ergonomics in Design
SIE 415: Technical Sales and Marketing
SIE 422: Deterministic Operations Research
SIE 457: Project Management
SIE 482: Lean Engineering
Other electives must be approved by the a CHEE Undergraduate Committee, please contact the CHEE academic adviser at advisor@chee.arizona.edu and supply the course name and number.