

Department of Mechanical Engineering General Advising for Juniors and Seniors

Prepared by Dr. Padilla Spring 2022

Mechanical Engineering Advising Website
<https://www.unr.edu/me/undergraduate-program/advising>

College of Engineering Advising Website
<https://www.unr.edu/engineering/student-resources/advising>

Policies

- No exceptions policy
 - Waivers will not be given for pre-requisites or co-requisites
- Repeat Policy
 - A course may only be taken a **maximum of 3 times**
 - C or better courses: you have 3 tries to get a C
 - Other courses: you have 3 tries to get a D-
 - The third time you take a course
 - You need **permission** to enroll in a course a 3rd time
 - You must go to the **college of engineering advisors** and **sign a form** stating you know that it is your final chance to enroll in the course

Requirements for ENGR 301 & Capstone

- ENGR 301 Pre-requisites:
 - General Education courses (CO1-CO3) completed
 - At least 3 courses from CO4-CO8 completed
 - PHYS 181 with a "C" or better
 - Junior or Senior standing
- ME 451
 - Pre-req: ME 310, ME 314, ME 351, ME 322
 - Co-req: ENGR 301
- ME 452
 - Pre-req: ENGR 100, ENGR 301, ME 451

Restricted Electives

- Fall
 - ME 414/414L: Intermediate Heat Transfer
 - ME 431/431L: Advanced Mechanics
 - ME 444/444L: Intermediate Dynamics
- Spring
 - ME 432/432L Materials
 - ME 453/453L: Vibrations
 - ME 467/467L: Intermediate Fluids

Summer Courses

- Required
 - ENGR 241
 - ME 242
 - ME 310
 - ME 311
 - ME 351
 - ENGR 301
- Electives
 - ME 354 - Introduction to Manufacturing Processes
 - ME 496 - Mechanical Engineering Internship Projects

General Electives - Fall 2021

- ME 354 Intro to Manufacturing Processes
- ME 411 Comparative Biomechanics
- ME 475 Introduction to Combustion
- ME 482 Aerodynamics
- ME 496 - Mechanical Engineering Internship Projects
- ME 493 Special Topics – Linear Theory of Elasticity
 - Prerequisites: CEE 372, MATH 285,
 - Recommended: MATH 330
 - Introduction to the linearized theory of elasticity. Governing differential equations and boundary conditions, strain and stress, constitutive relations, plane and other symmetric problems, waves.

General Electives - Spring 2023 (Tentative)

- ME 312 Thermodynamics II
- ME 354 Intro to Manufacturing Processes
- ME 422 Introduction to Robotics
- ME 458 Flight Stability and Control
- ME 463 Nonlinear Dynamics and Chaos
- ME 476 Internal Combustion Engines
- ME 480 Gas Dynamics
- ME 486 Biosolid and Biofluid
- ME 496 - Mechanical Engineering Internship Projects

Elective Restrictions/Substitutions

- ME 493: Special Topics
 - Only 6 credits is allowed for your degree
- Maximum of 3 credits towards your degree
 - ME 499: Independent Study
 - ME 496: Mechanical Engineering Internship Projects
 - ME 493 - Design Process
 - Courses outside of the ME department
 - If you would like to use an upper division course that does not have an ME prefix but is related you must get advisor approval.

Math/Science Electives

- ATMS 411 Introduction to Atmospheric Physics
- ATMS 412 Introduction to Air Pollution
- ATMS 413 Introduction to Synoptic Meteorology
- ATMS 414 Physical Climatology
- BME 401 Introduction to Biomedical Engineering
- MSE 401 Corrosion of Metals
- MSE 433 Electronic, Magnetic and Optical Properties of Materials
- MSE 460 Physical Metallurgy I
- MSE 461 Physical Metallurgy II
- MSE 470 Polymeric and Composite Materials
- MSE 472 Introduction to Ceramics
- PHYS 182 Physics for Scientists and Engineers III
- PHYS 351 Classical Mechanics
- PHYS 422R Applications of Quantum Mechanics
- PHYS 425 Thermal and Statistical Physics
- PHYS 426 Physics of Solids
- PHYS 473 Electricity and Magnetism
- MATH 307 Symbolic Logic
- MATH 310 Introduction to Analysis I
- MATH 311 Introduction to Analysis II
- **MATH 330 Linear Algebra I**
- MATH 331 Groups, Rings and Fields
- **MATH/STAT 352 Probability and Statistics**
- MATH 373 Theory of Positive Integers
- MATH 381 Methods of Discrete Mathematics
- MATH 401 Set Theory
- MATH 410 Complex Analysis
- MATH 411 Real Analysis
- MATH 412 Functional Analysis
- MATH 420 Mathematical Modeling
- MATH 422 Optimal Analysis
- MATH 430 Linear Algebra II
- MATH 440 Topology
- MATH 441 Intro Algebra Topology
- MATH 442 Differential Geometry
- MATH 443 Differential Geometry and Relativity I
- MATH 461 Probability Theory
- MATH 488 Partial Differential Equations

FE Requirement

- Enroll in ENGR 490 the same semester you plan to take the FE
 - There are no meetings for ENGR 490
- Register and pay to take the FE
- If you do not take the FE the same semester you are enrolled in ENGR 490
 - You will get an incomplete

Applying for Graduation

- **Apply for graduation in MyNevada**
- May Graduation Deadline: March 1
- August Graduation Deadline: June 1
- December Graduation Deadline: October 1

Graduate School

- Accelerated BS/MS program
- Accelerated BS/MBA program
- MS and PhD degrees