Department of Mechanical Engineering General Advising for Juniors and Seniors
Fall 2019 Dr. Padilla
www.unr.edu/engineering/student-resources/advising
Overview

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• Requirements for ENGR 301, ME 451, ME 452
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Announcements

- ME 380 Fluid Dynamics for Mechanical Engineers is replacing ENGR 360
- Prerequisites:
  - CHEM 121A and CHEM 121L with a “C” or better or CHEM 201
  - MATH 283 with a “C” or better
  - ME 242 with a "C" or better
- Corequisite:
  - MATH 285
Announcements, cont.

• 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
    • If you do not earn the required grade on the 3rd try you will not be given permission to enroll in the course again and you will not have the necessary requirements to get a degree in ME
Announcements, cont.

• No exceptions policy
  – Waivers will not be given for pre-requisites or co-requisites
• ME 303 is a pre-requisite for ME 310
• Starting Fall 2019
  – ME 310 will require a C or better in ME 242
  – ME 314 will require a C or better in ME 311
Advising Tools

• Academic Requirements in MyNevada
• Flow charts
Summer Courses

• Required
  – ENGR 241
  – ME 242
  – ME 311
  – ME 380
  – ENGR 301

• Electives
  – ME 354 - Introduction to Manufacturing Processes
Requirements for ENGR 301 & Capstone

• ENGR 301
  – Pre-req: ENG 102, PHYS 181 with a “C” or better
  – Pre-req: CH 201 or CH 202 and CH 203

• ME 451
  – Pre-req: ME 310, **ME 314**, **ME 351**, **ME 322**
  – Co-req: ENGR 301
  *Became a pre-req for ME 451 FALL 2019

• 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 *New restricted elective*
  – ME 453/453L: Vibrations
  – ME 467/467L: Intermediate Fluids
General Electives

Spring 2020

- ME 312 Thermodynamics II
- ME 422 Introduction to Robotics
- ME 435 - Micromechanics
- ME 456 - Introduction to Tribology
- ME 457 Finite Element Analysis
- ME 476 Internal Combustion Engines
- ME 493 Special Topics – Manufacturing Processes II
- ME 493 Special Topics – Flight Dynamics
- ME 493 Special Topics – Nonlinear Dynamics and Controls
General Electives

Fall 2020 (Tentative)

• ME 354 Intro to Manufacturing Processes
• ME 446 Composite Materials
• ME 475 Combustion
• ME 482 Aerodynamics
• ME 486 Biosolids and Biofluids
• ME 493 Special Topics – Comparative Biomechanics
• ME 493 Special Topics – TBD
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
  – Send your scores to Sam DiMuzio
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
Questions