

## MECH Electives & Grad Only Courses

All undergrad students MUST take one (T) Technical elective and one (D) Design elective.

One additional elective must be taken that will count as the (S) Senior elective.

\*A review of your electives should be discussed with your advisor prior to registration.

\*Courses and instructors are subject to change without notice.

### Fall 2024

MATL 4/862 (T, S) X-ray Diffraction - Shield  
 MATL 4/869 (T, S) Physical Materials Systems – Sutter  
 MATL 4/873 (T, S) Corrosion – Cui  
 MECH 4/808 (D, T, S) Heat Exchanger Design - Zhang  
 MECH 4/822 (T, S) Industrial Quality Control – Amar  
 MECH 4/831 (T, S) Comp Heat Transfer & Fluid Flow – Nama  
 MECH 4/839 (T, S) Biomaterial Surface Patterning - Lim  
 MECH 4/853 (T, S) Robotics: Kinematics & Design – Markvicka  
 MECH 4/872 (T, S) Additive Manufacturing - Guo  
 MECH 4/880 (T, S) Numerical Methods – Bobaru

### Spring 2025

MATL 4/871 (T, S) Electron Microscopy of Materials - Cui  
 MATL 4/892 (T, S) Soft Materials – Fernandez-Ballester  
 MATL 4/892 (T, S) Quantum Materials – Laraoui  
 MECH 4/805 (T, S) Turbomachinery – Ryu  
 MECH 4/807 (D, T, S) Power Plant Systems Design – Zhang  
 MECH 4/816 (T, S) Engineering Acoustics – Moore  
 MECH 4/836 (T, S) Intro to Continuum Biomechanics - Pedrigo  
 MECH 4/849 (T, S) Advanced Dynamics – Baesu  
 MECH 4/850 (D, T, S) Mech Eng Control Systems Design - Grover  
 MECH 4/851 (T, S) Intro to Finite Element Analysis - Bobaru  
 MECH 4/857 (D, T, S) Mechatronic Systems Design – TBD  
 MECH 4/892 (D, S) Making for Innovation – Farritor

### Grad ONLY

MATL 962 Imperfections in Crystals – Wang  
 MECH 801 Analytical Methods I – Turner  
 MECH 810 Viscous Flow I – Ryu  
 MECH 910 Continuum Mechanics - Baesu  
 MECH 918 Fundamental Finite Elements – Negahban  
 MECH 934 Theory of Elasticity II – Baesu  
 MECH 970 Adv. Manufacturing Processes - Rajurkar  
 MECH 975 Advanced Vibrations – Moore

### Grad ONLY

MECH 933 Theory of Elasticity I – J. Yang  
 MECH 939 Viscoelasticity - Negahban  
 MECH 940 Fracture Mechanics - Bobaru