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.

Spring 2025

MATL 4/892 (T, S) Soft Materials – Fernandez-Ballester MATL 4/892 (T, S) Intro to Quantum Materials – Laraoui MECH 4/805 (T, S) Turbomachinery – Ryu MECH 4/836 (T, S) Intro to Continuum Mechanics - Pedrigi MECH 4/837 (D, T, S) Biomedical Device Design – Nelson MECH 4/849 (T, S) Advanced Dynamics – Baesu MECH 4/850 (D, S) Mech Eng Control Sys Design - Grover MECH 4/851 (T, S) Intro to Finite Element Analysis – Bobaru MECH 4/874 (T, S) Manufacturing Engineering I – Rajurkar MECH 4/875 (T, S) Intro to Mechanical Vibrations - Turner MECH 4/892 (D, S) Making for Innovation – Farritor MECH 4/892 (T, S) Experimental Mech of Comp - Dzenis MECH 4/892 (T, S) Biofabrication - Meng

Fall 2025

MATL 4/869 (T, S) Physical Materials Science – Sutter
MATL 4/892 (T, S) Corrosion – Cui
MECH 4/806 (D, T, S) Air Conditioning Systems Dsgn – Zhang
MECH 4/831 (T, S) Computational Heat Transfer&Fluid Flow - Nama
MECH 4/853 (T, S) Robotics: Kinematics & Design – Markvicka
MECH 4/857 (T, S) Mechatronic Systems Design - Lehman
MECH 4/872 (T, S) Additive Manufacturing - Guo
MECH 4/880 (T, S) Numerical Methods – Bobaru
MECH 4/892 (T, S) Adv. Biomaterials – Lim
MECH 4/892 (T, S) History of Science - Baesu

Grad ONLY

MATL 998 Low-Dim Matls: Synth & Functional Prop - Sutter MECH 925 Manufacturing & Dynamic Systems Modeling - Rajurkar MECH 933 Theory of Elasticity I – J. Yang MECH 939 Viscoelasticity – Negahban MECH 940 Fracture Mechanics - Bobaru

Grad ONLY

MATL 972 Transformation in Materials - Shield MECH 801 Analytical Methods I – Grover MECH 810 Viscous Flow I – Ryu MECH 910 Continuum Mechanics - Baesu MECH 918 Fundamental Finite Elements – Negahban MECH 922 Conduction Heat Transfer – Gogos MECH 924 Radiation Heat Transfer – TBA MECH 950 Impact Engineering - TBA MECH 970 Adv. Manufacturing Processes – TBA