APPROVED LISTING OF TECHNICAL ELECTIVE COURSES (EE PROGRAM)
Fall 2024

NOTE: Electives are governed by the approved list in effect at the time a course is taken. Students should check the current list before enrolling in a course to confirm that the course is an approved elective.

No First Year Seminar course (1101) can be counted as a technical elective

ENGINEERING SCIENCE

ES 1060 Introduction to Engineering Problem Solving (3)
ES 1063 Graphical Communication and Solid Modeling (1)
ES 2110 Statics (3)
ES 2120 Dynamics (3)
ES 2310 Thermodynamics (3)
ES 2330 Fluid Dynamics (3)
ES 2410 Mechanics of Materials I (3)
ES 2280/2800 Physical Computing (3)
ES 3890 Engineering Honors Program Research Methods (3)
ES 4580 Honors Undergraduate Research (3)
ES 4920 Entrepreneurship for Engineers (3)

COMPUTER SCIENCE

COSC 1010 Introduction to Computer Science (4) or COSC 1015 Intro to Prog for Data Science (3)
[Credit may not be earned for both COSC 1010 and COSC 1015]
COSC 1030 Computer Science I (4) [Only if taken before EE 4075]
COSC 1100 Computer Science Principles and Practice (3)
Plus all COSC courses ≥ 2000 level

ELECTRICAL & COMPUTER ENGINEERING

Any BE & EE course

ARCHITECTURAL ENGINEERING

Any ARE course except ARE 3030 History of Architecture

CHEMICAL ENGINEERING

Any CHE course

CIVIL ENGINEERING

Any CE course

MECHANICAL ENGINEERING

Any ME course

PETROLEUM ENGINEERING

Any PETE course

MATH

MATH 2250	Linear Algebra (3)
MATH 2300	Discrete Structures (3)
MATH 3205	Analysis I: Elementary Real Analysis (3)
MATH 3310	Applied Differential Equations II (3)
MATH 3340	Introduction to Scientific Computing (3)
MATH 3500	Algebra I: Introduction to Rings and Proofs (3)
MATH 3700	Combinatorics (3)
MATH 4200	Analysis 2: Advanced Analysis (3)
MATH 4205	Analysis 3: Undergraduate Topics in Analysis (3)
MATH 4230	Introduction to Complex Analysis (3)
MATH 4230	Introduction to Complex Analysis (3)
MATH 4255	Mathematical Theory of Probability (3)
MATH 4265	Introduction to the Theory of Statistics (3)
MATH 4340	Numerical Methods for Ordinary and Partial Differential Equations (3)
MATH 4420	Advanced Logic (3)
MATH 4500	Matrix Theory (3)
MATH 4510	Algebra II: Introduction to Group Theory
MATH 4520	Algebra III: Topics in Abstract Algebra
MATH 4550	Theory of Numbers (3)
MATH 4600	Foundations of Geometry (3)

PHYSICS

PHYS 2250	Thermodynamic Systems in Energy Science
PHYS 2310	Physics III: Wave and Optics (4)
PHYS 2320	Physics IV: Modern Physics (3)
PHYS 4340	Semiconductor Materials and Devices (3)

Plus all Physics courses that have PHYS 1210 or PHYS 1310 or PHYS 1220 as a prerequisite

STATISTICS

STAT 4220	Basic Engineering Statistics (3)
STAT 4255	Mathematical Theory of Probability (3)
STAT 4265	Introduction to the Theory of Statistics (3)