

Graduate Engineering Sample Coursework

Please note that the curriculum provided here is a sample and actual course enrollment is dependent on student background, program of choice, and course availability. Actual courses are subject to change.

Major	First semester	Second semester (if applicable)
Civil Engineering	<ul style="list-style-type: none"> - CEN 305: Soil Mechanics - CEN 306: Structural Analysis - MNE/EAS 501: Advanced Engineering Math 	<ul style="list-style-type: none"> - CEN 304: Intro to Environmental Engineering - 500-level CEN-approved course - MNE/ EASE 502: Applied Numerical Methods
Mechanical Engineering	<ul style="list-style-type: none"> - EGR 301: Applied Engineering Math - MNE 323: Fluid Mechanics - MNE/EAS 501: Advanced Engineering Math 	<ul style="list-style-type: none"> - MNE 311: Heat Transfer - MNE 381: Design of Machine Elements - MNE/EAS 502: Applied Numerical Methods - 500-level MNE course
Electrical Engineering	<ul style="list-style-type: none"> - ECE 311: Digital Electronics - ECE 320: Discrete-Time Linear Systems - ECE 335: Electromagnetic Theory I 	<ul style="list-style-type: none"> - ECE 312: Analog Electronics - ECE 321: Continuous Time-Linear Systems - ECE 336: Electromagnetic Theory II
Computer Engineering	<ul style="list-style-type: none"> - ECE 370: Design and Implementation of Real-Time Embedded Resource Management Systems - ECE 388: Embedded Design Project - Any ECE Graduate Course(s) 	<ul style="list-style-type: none"> - ECE 368: Digital Design - ECE 369: Computer Networks - Technical Elective(s) (400/500 level)
Physics	<ul style="list-style-type: none"> - PHY 341: Mod Physics & Quant Mechanics I - PHY 411: Elec & Magnetic Fields I - PHY 631: Quantum Mechanics II 	<ul style="list-style-type: none"> - PHY 342: Mod Physics & Quant Mechanics II - PHY 412: Elec & Magnetic Fields II - PHY 441: Statistical thermodynamics
Computer & Information Science	<p>Two Foundation Courses and One Graduate Course or One Foundation Course and Two Graduate Courses:</p> <ul style="list-style-type: none"> - CIS 180: Object-Oriented Programming I - CIS 181: Object-Oriented Programming II - CIS 360: Algorithms and Data Structures - CIS 461: Formal Methods for Software Engineering - CIS 440: Software Process and Project Management 	<p>Two Foundation Courses and One Graduate Course or One Foundation Course and Two Graduate Courses:</p> <ul style="list-style-type: none"> - CIS 180: Object-Oriented Programming I - CIS 181: Object-Oriented Programming II - CIS 361: Models of Computation - CIS 370: Design of Operating Systems - CIS 580: Paradigmatic Software Development

- ✓ Courses differ by student and background - coursework includes a combination of foundational courses, non-credit support courses, and graduate-level courses.
- ✓ You'll complete 3-9 credits toward your graduate degree depending on course placement and program duration.