

ELECTRICAL & COMPUTER ENGINEERING: 4 YR. SEQUENCE

FALL CLASSES

FALL: First Semester (15 hours)

- ☐ ETME 11001 FYC: Engineering Technology
- ☐ CHEM 10234 General Chemistry I
- ☐ MATH 24004 Calculus I
- ☐ Core: Communications - Written
- ☐ Core U.S. Traditions

FALL: Third Semester (17 hours)

- ☐ ECEG 10103 Introduction to Computer Systems
- ☐ PHYS 20403/20431 Physics for Scientists and Engineers II and Lab
- ☐ MATH 26004 Calculus III
- ☐ MATH 26103 Discrete Mathematics
- ☐ Core: Social Science

FALL: Fifth Semester (15 hours)

- ☐ ECEG 35003 Signals and Systems
- ☐ ECEG 35103 Network Analysis
- ☐ ECEG 35603 Electromagnetic Fields and Waves
- ☐ MATH 31263 Linear Algebra
- ☐ Core: Fine Arts

FALL: Seventh Semester (16 hours)

- ☐ ECEG 48501 Systems Engineering Capstone Design I
- ☐ ECEG 35403/35401 Digital & Analog Communications and Lab
- ☐ ECEG 35803/35801 Fundamentals of Power Systems and Lab
- ☐ ECET 35004 Microcontroller Applications OR
ECEG 33403/33401 Advanced Microprocessor Systems
- ☐ ECEG XXX Major Elective

SPRING CLASSES

SPRING: Second Semester (17 hours)

- ☐ CPSI 17503 Programming I
- ☐ MATH 25004 Calculus II
- ☐ PHYS 20303/20331 Physics for Scientists and Engineers I and Lab
- ☐ Core: Communications - Written
- ☐ Core: History of Civilization

SPRING: Fourth Semester (17/18 hours)

- ☐ ECEG 21001 Computational Engineering Laboratory
- ☐ ECEG 21503/21501 Circuits and Systems and Lab
- ☐ CPSC 28204 Computer Organization OR
ECEG 33603 Computer Architecture
- ☐ MATH 32263 Introduction to Differential Equations
- ☐ STAT 35203 Applied Statistics I OR
- ☐ PHIL 23133 Ethics and Soc: Professional Ethics (Core: Humanities)

SPRING: Sixth Semester (17 hours)

- ☐ ECEG 33003/33001 Digital Systems and Lab OR
ECET 25233/25201 Introduction to Digital Systems and Lab
- ☐ ECEG 33203 Communication Networks OR
ECET 40603 Data and Computer Communications
- ☐ ECEG 35203/35201 Analog & Digital Electronics and Lab OR
ECET 30504 Electronic Devices I
- ☐ ECEG 36403 Introduction to Control Systems Engineering
- ☐ ECEG 45003 Digital Signal Processing

SPRING: Eighth Semester (15 hours)

- ☐ ECEG 48603 Systems Engineering Capstone Design II
- ☐ MEEG 31003 Engineering Economy OR
CNMG 30203 Engineering Economy
- ☐ ECEG XXX Major Elective
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Revised 1/15/2026

Possible electives for ECEG students

ECEG 39103 Cooperative Education
ECEG 40353 Power System Analysis
ECEG 43103 Advanced Digital Design
ECEG 45303 Advanced Digital Comm
ECEG 45403 Cellular and Wireless Comm
ECEG 45603 RF Techniques and Sys
ECEG 46003 Linear State-Space Control Sys
ECET 49903 Intro to AI in Power Systems

MEEG 31203 Optimization Methods in Eng
MEEG 31803 Decision and Risk Analysis
MEEG 32003 Operations Management
MEEG 36003 Discrete Event Sys Mod & Sim
MEEG 37243 Engineering Materials (spring)

ECET 36003 Data acquisition and sensors (fall)
ECET 30604 Electronic Devices II (fall)
ECET 30803 Robotics and PLC (fall)
ECET 44933 PV and Renewables (spring)
ECET 45004 Embedded Systems (spring)
ETME 32203 Project Management

MATH 30263 Introduction to Mathematical Proof
MATH 32003 Number Theory
MATH 42363 Numerical Analysis
STAT 35303 Applied Statistics II (fall)

MUAP 42053 Strategies for Innovation
MGMT 48373 Entrepreneurial Perspectives