Higher Level EECE Electives

Students must take 5 classes (20 credits) of Higher Level EECE Electives chosen from the following list. The student's chosen concentration requires 3 specific Higher Level EECE Electives to be taken, leaving 2 for the student to choose:

EECE 321 ELECTRONIC SYSTEMS (4)
EECE 333 DIGITAL SYSTEM DESIGN (4)
EECE 361 SIGNAL PROPAGATION (4)
EECE 362 WIRELESS NETWORKING AND APPLIC. (4)
EECE 372 ELECT POWER & ELECTROMECH DEVICES (4)
EECE 374 ENERGY PROCESSING (4)
EECE 378 POWER SYS ANALYSIS & THE SMART GRID (4)
EECE 383 MACHINE LEARNING FOR ENGINEERS (4)
EECE 384 AI AND REINFORCEMENT LEARNING (4)
EECE 397D CYBER-PHYSICAL SYSTEMS (4)
EECE 433 DIG. SIGNAL PROCESSING (4)
EECE 460 DIGITAL COMMUNICATIONS (4)

EECE Technical Electives

The following courses are pre-approved to be used toward the degree requirement of 10 credits of technical electives. Other courses in supporting disciplines that are not on this list can possibly fulfill the technical elective requirement if students obtain approval from the EECE Program in consultation with their advisor:

EECE 300- and 400-level Higher Level EECE Electives*
EECE 400 INDEPENDENT STUDY
EECE 495 DIRECTED RESEARCH IN EECE

BIOI 204, 205, 206 INTRODUCTORY SERIES (5)
BIOI 348 HUMAN ANATOMY AND PHYSIOLOGY (5)
CHEM 162, 163 GENERAL CHEMISTRY II, III (5,5)
CSCI 145 COMP. PROG. & LINEAR DATA STRUCT. (4)
CSCI 247 COMPUTER SYSTEMS I (5)
CSCI 241 DATA STRUCTURES (4)
CSCI 3XX and CSCI 4XX
ENGR 170 INTRO TO MATERIALS SCIENCE & ENGR (4)
ENGR 214 STATICS (4)
ENGR 225 MECHANICS OF MATERIALS (4)
ENGR 320 SCIENCE OF ENERGY RESOURCES (4)
ENGR 360 ENERGY EFFICIENT DESIGN (4)
ENGR/EGST 380 ENERGY AND ENVIRONMENT (4)
ENGR/ECON 386 ECONOMICS OF ELECT. MARKETS (4)
ENGR 420 ENERGY SCIENCE II (3)
ENGR 464 SUSTAINABLE BUILDING ANALYSIS (4)
ENGR 480 APPLICATIONS ENERGY PRODUCTION (4)
ENGR 486 ELECTRIC UTILITY PLANNING (4)
MATH 225 MULTIVARIABLE CALC. AND GEOM. II (4)
MATH 226 LIMITS AND INFINITE SERIES (4)
MATH 302 INTRO TO PROOFS VIA NUMBER THEORY (4)
MATH 304 LINEAR ALGEBRA (4)
MATH 307 MATHEMATICAL COMPUTING (4)
MATH 309 INTRO TO PROOF IN DISCRETE MATH (4)
MATH 342 STATISTICAL METHODS I (4)
MATH 343 STATISTICAL METHODS II (4)
MATH 344 HONORS PROBABILITY AND STATS (4)
MATH 410 MATHEMATICAL MODELING (4)
MATH 430 FOURIER SERIES/DIFFNL EQNS (4)
MATH 432 SYSTEM OF DIFFERENTIAL EQUATIONS (4)
MATH 441 PROBABILITY (4)
MATH 445 COMPUTATIONAL STATISTICS (4)
MATH 446 NONPARAMETRIC STAT. INFERENCE (4)
MATH 447 MULTIVARIATE STATISTICS (4)
MATH 456 APPLIED TIME SERIES ANALYSIS (4)
MATH 458 STOCHASTIC PROCESSES (4)
MATH 473 NUMERICAL LINEAR ALGEBRA (4)
M/CS 335/375 LINEAR OPTIMIZATION (4)
M/CS 435/475 NONLINEAR OPTIMIZATION (4)
MFGE 341 QUALITY ASSURANCE (4)
MFGE 342 DESIGN OF EXPERIMENTS (4)
MFGE 453 INDUSTRIAL ROBOTICS (4)
OPS 360 OPERATIONS MANAGEMENT (4)
OPS 460 DESIGNING AND IMPROVING OPERATIONS (4)
OPS 461 PROJECT MANAGEMENT (4)
OPS 463 ENTERPRISE RESOURCE PLANNING SYS (4)
PHYS 220 PHYSICS W/ CALCULUS IV (4)
PHYS 224 MODERN PHYSICS I (4)
PHYS 225 MODERN PHYSICS II (3)
PHYS 339 OPTICS (3)
PHYS 350 ENGINEERING THERMODYNAMICS (3)
PHYS 368 ELECTROMAGNETISM I (3)
PHYS 369 ELECTROMAGNETISM II (3)

* Taken beyond the 20 credits of required Higher Level EECE Electives. Courses may not be double counted to simultaneously fulfill the 20 credits of Higher Level EECE Electives and the 10 credits of technical electives.