Lower Division General Education Requirements (32 units)

ENGL 101 Composition I: Reflective and Expository Writing (4)
COMM 150 Oral Communication (4)
HIST 202A or 202B United States Civilization (4)
POLS 150 Government and American Society (4)
BLOCK C – Humanities 3 courses from 3 different areas (12)
BLOCK E – Lifelong Understanding 1 course (4)

University Requirement (4 units)

ENGL 102 Composition II: Analytical and Persuasive Writing (4)

Lower Division Major Requirements (63 units)

ENGR 150 Introduction to Higher Ed for Engineers (1)  Prerequisite: NONE
EE 204 Circuit Analysis (4)  Corequisites: PHYS 213, MATH 208
CE/ME 208 Statics and Strength of Materials (4)  Prerequisites: PHYS 211, MATH 207
CHEM 101 General Chemistry I (5)  Prerequisite: As described in the Catalog
EE 210 Electrical Measurements Laboratory (1)  Prerequisite: PHYS 213
EE 211 Electric Circuits Laboratory (1)  Prerequisite: EE 204
CS 242 “C” Programming (4)  Prerequisite: Math 104B or Consent of Instructor
EE 244 Digital Engineering (4)  Prerequisite: NONE
EE 246 Digital Logic Laboratory (1)  Prerequisites: EE 244
EE 290 EE Computing (3)  Prerequisites: MATH 209, PHYS 213
MATH 206 Calculus I: Differentiation (4)  Prerequisites: MATH 104A and 104B with “C” or Placement Test
MATH 207 Calculus II: Integration (4)  Prerequisite: MATH 206 with a minimum of “C” grade
MATH 208 Calculus III: Sequences, Series, and Coordinate Systems (4)  Prerequisite: MATH 207 with “C”
MATH 209 Calculus IV: Several Variables (4)  Prerequisite: MATH 208 with a minimum of “C” grade
MATH 215 Differential Equations (4)  Prerequisite: MATH 209
PHYS 211 Mechanics (5)  Prerequisites: High School PHYS; MATH 206 (concurrently)
PHYS 212 Waves, Optics & Thermodynamics (5)  Prerequisites: PHYS 211; MATH 207 (concurrently)
PHYS 213 Electricity and Magnetism (5)  Prerequisites: PHYS 212; MATH 208 (concurrently)

Upper Division Major Requirements (48 units)

EE 304 Electric Machines (4)  Prerequisite: EE 204 with “C” or higher grade
EE 317 Electronics Laboratory I (1)  Prerequisites: EE 210, EE 211, EE 336
EE 320 Analog Communication Systems (4)  Prerequisite: EE 332
EE 330 Writing for Electrical Engineers (1)  Corequisites: GWAR ; completion of any two 300-level EE lectures
EE 332 Systems Analysis (4)  Prerequisites: EE 204; MATH 215 (concurrently)
EE 334 Probability and Random Processes (4)  Corequisites: MATH 209
EE 336 Electronics (4)  Prerequisite: EE 204
EE 345 Microcomputer Programming (4)  Prerequisite: EE 244
EE 360 Control Systems Theory I (4)  Prerequisite: EE 332
EE 437 Electric and Magnetic Fields (4)  Prerequisite: EE 332
EE 496A Senior Design I (3)  Prerequisites: Selection of UD specialization; completion of at least two 300-level required courses; Corequisites: EE 330; completion of at least one UD technical elective lab
EE 496B Senior Design II (3)  Prerequisite: EE 496A (C or higher)
EE 496C Senior Design III (3)  Prerequisite: EE 496B (C or higher)
ENGR 300 Economics for Engineers (4)  Prerequisite: Must be Junior or Senior Standing in Engineering
ENGR 301 Ethics and Professionalism in Eng (1)  Prerequisite: Must be Junior or Senior Standing in Engineering

Upper Division Math Elective (4 units)
Select one from the following with advisor’s approval.

MATH 325 Math Notation and Proof (4)  Prerequisite: MATH 208

11/12/2013
MATH 402A  Advanced Math I for Eng & Phys (4)  Prerequisite: MATH 215 or MATH 401
MATH 403  Partial Differential Equations (4)  Prerequisite: MATH 215 or MATH 401
MATH 474  Theory of Probability (4)  Prerequisite: MATH 209

Upper Division Technical Electives and Specialization (35 units)
Select 3 lecture courses and 1 laboratory course in one specialty with advisor’s approval. Select 5 additional lectures and 2 laboratories as upper division technical electives.

Elective Lectures:
- CS 342  Object Oriented Prog Using C++ (4)  Prerequisite: CS 242
- EE 347  Computer Logic Design (4)  Prerequisite: EE 244
- EE 371  Analog Electronics (4)  Prerequisite: EE 336
- EE 372  Digital Electronics (4)  Prerequisites: EE 244, EE 336
- EE 412  Antennas (4)  Corequisite: EE 437
- EE 413  Systems Engineering (4)  Prerequisite: EE 360
- EE 420  Digital Communication Systems (4)  Prerequisite: EE 320
- EE 421  Coding for Communications (4)  Prerequisite: EE 320
- EE 422  Digital Signal Processing (4)  Prerequisite: EE 320
- EE 424  Fiber Optics (4)  Prerequisite: EE 320
- EE 426  Digital Image Processing (4)  Prerequisite: EE 320
- EE 427  Speech Signal Processing (4)  Prerequisites: CS 242, EE 334, EE 422
- EE 431  Electric Power Distribution (4)  Prerequisite: EE 304
- EE 432  Power Transmission Lines (4)  Prerequisite: EE 304
- EE 433  Electric Power System Analysis (4)  Prerequisite: EE 432
- EE 434  Electromagnetic Energy Conversion (4)  Prerequisite: EE 304
- EE 436  Analog Integrated Circuits (4)  Prerequisite: EE 336
- EE 439  Digital Integrated Circuits (4)  Prerequisites: EE 336
- EE 440  Data Communications & Networking (4)  Prerequisites: EE 320, CS 242
- EE 442  Multimedia Networking (4)  Prerequisites: EE 290, EE 440
- EE 445  Microprocessor Interface Design (4)  Prerequisite: EE 345
- EE 446  Embedded Architectures (4)  Prerequisites: CS 242, EE 244
- EE 447  Backend Compiler Technology (4)  Prerequisites: CS 342, EE 347 or permission of instructor
- EE 449  Computer Organization (4)  Prerequisite: EE 347 (concurrently)
- EE 460  Control Systems Theory II (4)  Prerequisite: EE 360
- EE 461  Discrete-Time Control Systems (4)  Prerequisite: EE 360
- EE 462  State Space Control Systems (4)  Prerequisite: EE 360
- EE 472  Optoelectronics (4)  Prerequisite: EE 336
- EE 483  Power Electronics (4)  Prerequisite: EE 336
- EE 485  Introduction to Biomedical Devices (4)  Prerequisites: EE 204
- EE 486  Biomedical Signal Processing (4)  Prerequisites: EE 332
- EE 454  Special Topic in EE (4)  Prerequisites: depends on topic taught

Elective Laboratories:
- EE 314  Electromagnetic Energy Conv Laboratory (1)  Prerequisites: EE 304, EE 211
- EE 321  Communications Laboratory (1)  Prerequisites: EE 317; EE 320 (concurrently)
- EE 340  Electronics Laboratory II (1)  Prerequisite: EE 317
- EE 428  Digital Signal Processing Lab (1)  Prerequisites: EE 290, EE 332
- EE 443  Programmable Logic Lab (1)  Prerequisite: EE 448 or previous experience with Verilog HDL
- EE 448  HDL Design and Simulation Lab (1)  Prerequisite: EE 246
- EE 468  Control Systems Laboratory (1)  Prerequisite: EE 360 (concurrently)
- EE 498  Cooperative Education (1)  Prerequisites: Contact EE Dept for details
- EE 499  Undergraduate Directed Study (1)  Prerequisite: Department’s permission

General Education Upper Division Theme (12 units)

UPPER DIVISION GE THEME 3 courses (12)

Notes:
1. A biology course must be included as part of GE Upper Division Theme.
2. Select two diversity courses from among all GE courses taken.
3. Must take the Writing Proficiency Examination (WPE) prior to completing 135 quarter units.

11/12/2013