Professional Preparation Curriculum Planning

Systems

In addition to the required courses in the BSEE curriculum and flowchart, if you are interested in careers in any of the following **Electrical Engineering Specialty Areas**, we would recommend that you choose from the following **Engineering Support Electives** and **Technical Electives.**

Signal Processing:

MATH 306 Linear Algebra II (4)
MATH 344 Linear Analysis II (4)
EE 419 Digital Signal Processing (3) [W]
 EE 459 Digital Signal Process. Lab (1) [W]
EE 515 Discrete Time Filters (4) [F]
EE 509 Computational Intelligence (4) [S]
EE 525 Stochastic Processes (4) [F]

Image Processing / Computer Vision:

MATH 306 Linear Algebra II (4)
PHYS 323 Optics (4) [W]
CPE/EE 428 Computer Vision (3+1) [W]
EE 528 Digital Image Processing (4) [F]
EE 424 Intro. to Remote Sensing (3+1) [S]
EE 516 Pattern Recognition (3+1) [S]

Control Systems:

MATH 306 Linear Algebra II (4)
ME 211 Engineering Statics (3)
ME 212 Engineering Dynamics (3)
EE 432 Digital Control Systems (3) [F]
 EE 472 Digital Control Systems Lab (1) [F]
EE 513 Control System Theory (4) [W]
EE 509 Computational Intelligence (4) [S]
EE 514 Adv. Topics in Auto. Control (4) [S]

Audio Engineering:

PHYS 322 Vibrations and Waves (3) [F]
MU 311 Sound Design: Technologies (3+1) [F]
EE 419 Digital Signal Processing (3) [W]
 EE 459 Digital Signal Process. Lab (1) [W]
EE 425 Analog Filter Design (3) [S]
  EE 455 Analog Filter Design Lab (1) [S]
EE 515 Discrete Time Filters (4) [F]

Communications:

MATH 344 Linear Analysis II (4)
PHYS 322 Vibrations and Waves (3) [F]
EE 415 Communication System Design (3) [F]
EE 416 Digital Communications (3) [F]
  EE 456 Communication Systems Lab (1) [F]
EE 403 Fiber Optic Communication (3) [F]
  EE 443 Fiber Optic Communication Lab (1) [F]
EE 440 Wireless Communications (3) [W]
  EE 480 Wireless Communications Lab (1) [W]
EE 504 Software Defined Radio (3+1) [S]
EE 525 Stochastic Processes (4) [F]
EE 526 Advanced Digital Commun. (4) [W]

Robotics/Mechatronics:

ME 211 Engineering Statics (3)
ME 212 Engineering Dynamics (3)
ME 326 Intermediate Dynamics (3)
EE 432 Digital Control Systems (3) [F]
 EE 472 Digital Control Systems Lab (1) [F]
ME 423 Robotics: Fundamentals and Applications (3+1) [F,S]
or **ME 405 Mechatronics** (3+1) [W,S]
CPE/EE 439 Intro. to Real-Time Operating Systems (3+1) [F]
EE 513 Control System Theory (4) [W]

9/19/17