SYSTEMS CONCENTRATION

Approved Electives [1]

Select from the following: 9

BMED 310	Biomedical Engineering Measurement and Analysis	
CPE/CSC 202	Data Structures	
CPE/CSC 203	Project-Based Object-Oriented Programming and Design	
CPE 333	Computer Hardware Architecture and Design	
IME 301	Operations Research I	
IME 305	Operations Research II	
MATH 206	Linear Algebra I	
MATH 306	Linear Algebra II	
MATH 410	Complex Analysis I	
MATH 411	Complex Analysis II	
MATH 451	Numerical Analysis I	
ME 211	Engineering Statics	
ME 212	Engineering Dynamics	
PHYS 323	Optics	
PHYS 428	Nonlinear Dynamical Systems	

Technical Electives [1]

Select from the following: 11

BMED 440	Bioelectronics and Instrumentation
CPE 315	Computer Architecture
CPE 333	Computer Hardware Architecture and Design
CPE/CSC 357	Systems Programming
CPE/EE 414	Robotic Systems Integration
CPE 416	Autonomous Mobile Robotics
CPE/EE 428	Computer Vision
CPE/EE 432	Digital Control Systems
CPE/EE 442	Real Time Embedded Systems
CPE/EE 447	Stringed Musical Instrument Acoustics, Mechanics, and Transducer Design
CPE 464	Introduction to Computer Networks
CPE/EE 472	Digital Control Systems Laboratory
EE 403	Introduction to Photonics and Fiber Optics
EE 415	Communication Systems Design
EE 416	Digital Communication Systems
EE 419	Digital Signal Processing
EE 424	Introduction to Remote Sensing
EE 425	Analog Filter Design
EE 440	Wireless Communications
EE 443	Introduction to Photonics and Fiber Optics Laboratory
EE 455	Analog Filter Design Laboratory
EE 456	Digital Communication Systems Laboratory
EE 459	Digital Signal Processing Laboratory
EE 475	Communication Networks and Systems Laboratory
EE 480	Wireless Communications Laboratory
EE 504	Software Defined Radio
EE 509	Computational Intelligence
EE 513	Control Systems Theory
EE 514	Advanced Topics in Automatic Control
EE 515	Discrete Time Filters
EE 516	Pattern Recognition
EE 525	Stochastic Processes
EE 526	Advanced Digital Communications
EE 528	Digital Image Processing
IME 301	Operations Research I
IME 305	Operations Research II
MATH 306	Linear Algebra II
MATH 406	Linear Algebra III
MATH 410	Complex Analysis I
MATH 411	Complex Analysis II
MATH 453	Numerical Optimization
ME 405	Mechatronics
MU 311	Introduction to Recording, Synthesis, and Production
MU 312	Advanced Recording, Synthesis, and Production
MU 411	Sonic Interactions with Technology

Total units **20**

[1]   A course cannot be double-counted as a Approved Elective and a Technical Elective.