

Systems, Imaging and Instrumentation Track, 2017-2018

Freshman	Credits
CHEM 1127Q – General Chemistry	4
MATH 1131Q – Calculus I	4
CSE 1010 – Introduction to Computing for Engineers	3
ENGL 1010 – Sem in Academic Writing OR ENGL 1011 Sem in Writing Through Lit	4
ENGR 1000 – Orientation to Engineering	1
	16
CHEM 1128Q – General Chemistry	4
MATH 1132Q – Calculus II	4
BIOL 1107 – Principles of Biology	4
ENGR 1166 – Foundations of Engineering (BME section)	3
	15
Sophomore	
PHYS 1501Q – Physics for Engineers I	4
MATH 2110Q – Multivariable Calculus	4
CE 2110 – Applied Mechanics I	3
PNB 2264 – Human Physiology & Anatomy	4
STAT 3025Q – Statistical Methods (Calculus Level)	3
	18
PHYS 1502Q – Physics for Engineers II	4
BME 3120 – LabView Basics for Engineers	1
MSE 2101 – Materials Science & Engineering I	3
ECE 2001 – Electrical Circuits	4
MATH 2410Q – Elementary Differential Equations	3
MATH 2210Q – Applied Linear Algebra	3
	18
Junior	
BME 3500 – Biomedical Engineering Measurements	3
ECE 3101 – Signals & Systems	4
Content Area 1 (not in PHIL)	3
ECE 3201 – Electronic Circuit Design & Analysis / or CSE 2300W – Digital Logic Design	4
STATS 3965 or MATH 3170 – Elementary Stochastic Processes	3
	17
BME 3900 – Junior Design	3
Content Area 2 (Social Science)	3
ECE 3111 – Systems Analysis	4
BME 4500 – Bioinstrumentation	3
Track Elective	3
	16
Senior	
BME 4900 – Biomedical Engineering Design I	3
PHIL 1104 – Philosophy & Ethics	3
Content Area 2 (social science, not same department as junior year)	3
BME 4201 – Introduction to Medical Imaging	3
BME Elective	3
	15
BME 4910W – Biomedical Engineering Design II	3
Content area 4 (Diversity)	3
Content area 4 (International)	3
BME Elective	3
Track Elective	3
	15
Total Credits	130

SII Track Electives, 2017-2018	
CSE 2300W Digital Logic Design	
ECE 3001 Electromagnetic Fields & Waves	
ECE 3111 Systems Analysis	
ECE 3201 Electronic Circuit Design & Analysis	
ECE 3221 Digital Integrated Circuits	
ECE 3223 Optical Engineering	
ECE 3243 Introduction to Nanotechnology	
ECE 3401 Digital Systems Design	
ECE Microprocessor Applications Lab	
ECE 3431 Numerical Methods in Scientific Computation	
ECE 4095 Special Topics in ECE	Topic requires BME Dept Approval
ECE 4095 Special Topics in ECE: Intro to Robotics	This Topic Only
ECE 4099 Independent Study in ECE	Topic requires BME Dept Approval
ECE 4111 Communication Systems	
ECE 4112 Digital Communication Systems & Networks	
ECE 4121 Digital Control Systems	
ECE 4131 Introduction to Digital Signal Processing	
ECE 4201 Electronic Circuits & Applications	
ECE 4211 Semiconductor Devices & Nanostructures	
ECE 4223 Nanophotonics	
ECE 4225 Fundamentals of Electron Device Design & Char	
ECE 4242 Micro/Opto-Electronic Devices & Circuits Fab Lab	
ECE 4243 Nanoscience & Nanotechnology I	
ECE 4244 Nanotechnology II	
ECE 4401 Digital Design Lab	

SII BME Electives, 2017-2018	
BME 3100 Physiological Modeling	
BME 4300 Physiological Control Systems	
BME 4999 Independent Study in BME	Topic requires BME Dept Approval