

The University of Toledo
Department of Bioengineering
BSBE Elective Sequence Checkout Sheet

Student Name: _____ Entrance Date: _____ Rocket ID: _____

Prior to taking your first technical elective course, all students admitted during or after Fall 2017 are required to select and complete an elective track sequence. A total of five technical electives (15 hours) must be completed to satisfy the BSBE program requirements. This includes two technical electives which must be BIOE 4XXX level courses. To satisfy the track completion requirement, a minimum of three courses (9 hours) must be completed within the selected track category. The remaining two elective courses (6 hours) may be completed within any of the track categories.

Elective Track Selection (Check One)

- Biochemical Engineering, Biofuels & Green Energy
- Device Design and Development
- Manufacturing and Quality Control
- Biomechanics
- Pre-Medicine
- Bioinstrumentation, Optics & Imaging
- Tissue Engineering
- Individualized (*requires approval*)

Student Signature: _____ Date: _____

ADDSS Signature: _____ Date: _____

Biochemical Engineering, Biofuels & Green Energy		Hours	Grade
BIOL 3010	Molecular Genetics	3	
BIOL 3030	Cell Biology	3	
CHEM 2410	Organic Chemistry I	3	
CHEM 2420	Organic Chemistry II	3	
CHEM 3510	Biochemistry I	3	
BIOE 4620	Biochemical Engineering	3	
BIOE 4630	Bioseparations	3	
CHEE 4010	Green Engineering Principles	3	
CHEE 4120	Biofuels	3	
PHYS 4400	Principles & Varieties of Solar Energy	3	
Device Design and Development		Hours	Grade
BIOE 4110	Advanced Biomechanics	3	
BIOE 4320	Adv. Biomedical Quality Control	3	
BIOE 4610	Artificial Organs	3	
BIOE 4620	Biochemical Engineering	3	
BIOE 4710	Biomechanics Soft and Hard Tissue	3	
BIOE 4730	Computational Bioengineering	3	
BIOE 4740	Tissue Engineering	3	
BIOE 4750	Exp. Meth. in Orthopedic Biomech.	3	
BIOE 4980	Medical Internet of Things	3	
BIOE 4980	Advanced Biomaterials	3	
EECS 3100	Microsystems Design	3	
EECS 4170	Real Time Embedded System Design	3	

Pre-Medicine		Hours	Grade
BIOL 3030	Cell Biology	3	
BIOL 3040	Cell Biology Laboratory	2	
BIOL 4250	Introduction to Neurobiology	3	
CHEM 2410	Organic Chemistry I	3	
CHEM 2420	Organic Chemistry II	3	
CHEM 2460	Organic Chem. Lab I	1	
CHEM 2470	Organic Chem. Lab II	1	
CHEM 3510	Biochemistry I	3	
BIOE 4200	Biosystems and Control	3	
BIOE 4720	Cellular Electrophysiology	3	
Bioinstrumentation, Optics & Imaging		Hours	Grade
BIOL 4250	Introduction to Neurobiology	3	
EECS 3100	Microsystems Design	3	
EECS 3710	Electromagnetics I	3	
EECS 3720	Electromagnetics II	3	
EECS 4170	Real Time Embedded System Design	3	
PHYS 3310	Modern Physics	3	
PHYS 3400	Physical Prin of Energy Sources for Humans	3	
PHYS 3610	Optics & Lasers	3	
PHYS 4430	Medical Physics I	3	
PHYS 4440	Medical Physics II	3	
BIOE 4350	Biomedical Optics	3	
BIOE 4980	Medical Internet of Things	3	
BIOE 4640	Medical Imaging	3	
BIOE 4670	Ultrasound Principles	3	

