MICROSYSTEMS AND NANOTECHNOLOGY MINOR

Course	Title	Credits
Required Courses: select at least 9 credits from these four courses [1]		**9**
MSNT 3940	Principles and Applications of Nanotechnology	
MSNT 4230	Design, Fabrication, and Simulation of MEMS	
MECHENG 4980	Current Topics in Engineering (Microfluidics)	
MSNT 4000	Research in Microsystems and Nanotechnology	
Electives		**9**
Chemistry		
CHEMSTRY 2150	Quantitative Analysis	
CHEMSTRY 3540	Organic Chemistry I	
CHEMSTRY 4630	General Biochemistry	
CHEMSTRY 4130	Physical Chemistry	
Electrical Engineering		
ELECTENG 3020	Analog Electronics	
ELECTENG 3130	Solid State Electronic Devices	
ELECTENG 3320	Automatic Controls	
ELECTENG 4260	Measurements and Instrumentation	
Engineering Physics		
ENGRPHYS 3640/ ELECTENG 3410	Electric and Magnetic Fields	
ENGRPHYS 3240	Applied Mechanics	
ENGRPHYS 4140	Applied Optics	
ENGRPHYS 4210	Sensor Lab	
ENGRPHYS 4220	Engineering Quantum Mechanics	
Biology		
BIOLOGY 2040	Cell Biology	
BIOLOGY 3240	Microbiology	
BIOLOGY 3330	Genetics	
BIOLOGY 3530	Biotechnology	
BIOLOGY 4040	Molecular Biology	
BIOLOGY 3620	Immunology	
BIOLOGY 3920	Personalized Learning Experience	
Mechanical Engineering		
MECHENG 3040	Engineering Materials	
MECHENG 3230	Manufacturing Processes	
MECHENG 3330	Design of Machine Elements	
MECHENG 4330	Automatic Controls	
MECHENG 4430	Advanced Materials	
MECHENG 4440	Failure of Materials	
MECHENG 4560	Computational Fluid Dynamics	
MECHENG 4800	Finite Element Method	
MECHENG 4840	Vibration Systems Design	
MECHENG 4830	Mechatronics	
Independent Study		
ELECTENG/ENGRPHYS/ MECHENG 4990	Independent Study (needs approval)	
BIOLOGY 4920/CHEMSTRY 4000	Independent Research in Biology (needs approval)	
Total Credits		18

[1] The minor requires 18 credits. Nine (9) of these must be unique to the minor, i.e. not counting toward graduation in another discipline.