

Technical Electives 2016-17**(Standard Option)**

Course Title	Course No.	Course Title	Course No.
Statics	CoE 2001	* Chem. Eng. in Nanoscale	ChBE 4020
Deformable Bodies	CoE 3001	* Microelec Fabrication	CHBE 4050
Microelectronics & Nanotech.Revol.	CoE 3002	** Bioprocess Engineering	ChBE 4310
Low Speed Aerodynamics	AE 2020	* Product Design	ChBE 4535
Introduction to Mechanics	AE 2120	Research	CHBE 2699
Micro-renewable Energy Syst.	AE 4883	Research	CHBE 4699
Intro. Bioengr. Stats.	BMED 2400	* Microfluidics/BioMEMS	ChBE 4710
Biomedical Systems and Modeling	BMED 3510	* Biofluid Mechanics	ChBE 4757
Intro. To Biomechanics	BMED 3400	* Electrochem Energy Sto	ChBE 4759
Intro. To Biomaterials	BMED 4751	* Biocatalysis	ChBE 4760
Dynamics	CEE 2040	* Pulping & Chemical Rec	ChBE 4763
Environ. Engr. Principles	CEE 2300	* Bleaching & Paper-maki	ChBE 4764
Environ. Engr. Systems	CEE 4300	* Drug Design, Developm	ChBE 4765
Air Pollution Engr.	CEE 4330		
Environ. Impact Assessment	CEE 4620	* Polymer Science & Engi	ChBE 4775
Fund. Of Digital System Design	ECE 2020	* Polymer Science & Engi	ChBE 4776
Intro. to Signal processing	ECE 2026	* Mechanical Behavior of	ChBE 4791
Electromagnetics	ECE 3025	* Composite Materials &	ChBE 4793
Microelectronic Circuits	ECE 3040	* Composite Materials &	ChBE 4794
Circuits and Microelectronics Lab	ECE 3043		
Energy Systems	ECE 3072	* Advanced Process Syste	ChBE 4803
Semiconductor Devices	ECE 3080	* Aerosol Chem & Air Qu	ChBE 4803
Circuits & Electronics	ECE 3710	* Biofuel Blching and Pap	ChBE 4803
Instrum & Electronic Lab	ECE 3741	* Biomolecular Eng. Of th	ChBE 4803
Electromagnetic & Microwave Appl.	ECE 4350	* Cellular Engineering	ChBE 4803
Probability w/Applications	ISyE 2027	* Colloid and Surfaces	ChBE 4803
Basic Statistical Methods	ISyE 2028	* Complex Fluids	ChBE 4803
Engineering Economy	ISyE 3025	* Nanomaterials & Energy	CHBE 4801
Methods of Quality Improvement	ISyE 3039	* Protein Engineering	ChBE 4803
Stochastic Manufact & Svc.	ISyE 3232	Tech Leadership Professor	ChBE 4803
Matls Characterization	MSE 2021		
Mech. Behavior of Materials	MSE 3005		
Intro. To Fiber Enterprise	MSE 3720	* Tissue Engineering	ChBE 6794
Poly. Solns & Surfaces	MSE 4140		
Introduction to Biomaterials	MSE 4751		
Fund. of Nanomater.& Struct.	MSE 4330		
Biologically Inspired Design	MSE 4740		
Dynamics of Rigid Bodies	ME 2202		
Design and Manufacture	ME 3210		
Radiation Physics	NRE 3301		
Plasma Phys. & Fusion Engr.	NRE 4610		

* These CHBE classes can be applied as CHBE or Engineering electives.

** CHBE 4310 is a required class for Biotechnology concentration. It can be a CHBE or Engineering Elective for standard option.

You are required to take 6 total hours of technical electives in the Standard option.

Up to 3 credit hours of engineering electives may be taken at the 2000 level. At least 3 credit hours must be taken at the 3000 level or higher.

Undergraduate research (ChBE 2699 and/or ChBE 4699) may be used as engineering electives in standard option; research in other engineering programs (e.g. BME 2699 or 4699) may also be counted as engineering electives. Please see your academic advisor for additional rules governing research.

Any xxxx4803 Special Topics course must be approved by the department advisor.

No two courses will be allowed towards satisfying the degree requirements if there is more than 20% overlap in course content.