Pre-Approved[1] Engineering Electives for Biological Engineering

(NOTE: Technical Electives ≠ Engineering Electives ≠ Bioengineering Electives)[2]

Updated: November 2012

Course #	Title	Offered	Credits
ECHM 216	Elem Princ of Chem Eng II	[S]	3
ECHM 307	Chem Engin Thermodynamics	[F]	3
ECHM 323	CHem Engin Mass Transfer Ops	[S]	3
ECHM 322	Chem Engin Heat Transfer Ops	[F]	3
ECHM 328	Chem Engin Reaction Engin	[S]	3
ECHM 407	Chem Engin Thermodynamics II	[F]	3
ECHM 443	Chem Engineering Lab II	[S]	2
ECHM 428	Reaction Engr & Model	[S]	3
ECHM 451	Chem Engin Proc Dyn/Control	[S]	3
ECHM 424	Tranport Analysis	[F]	3
EBIO 490	Undergraduate Research	[F,S,Su]	1 to 3
EBIO 498	Internship (1 cr per work period)	[F, S, Su]	1 to 3
ECHM 490	Undergraduate Research	[F,S,Su]	1 to 3
ECHM 498	Internship (1 cr per work period)	[F, S, Su]	1 to 3
EELE 201	Circuits I for Engineering	[F,S]	4
EELE 203	Circuits II for Engineering	[S]	4
EELE 250	Circuits, Devices, and Motors	[F,S]	4
EENV 340	Principles of Environmental Engineering	[F,S]	3
EENV 434	Groundwater Supply and Remediation	[S]	3
EENV 441	Natural Treatment Systems	[S]	3
EENV 443	Air Pollution Control	[F even]	3
EENV 445	Hazardous Waste Treatment	[F odd]	3
EENV 447	Hazardous Waste Management	[S even]	3
EGEN 201	Engineering Mechanics-Statics	[F,S,Su]	3
EGEN 202	Engineering Mechanics- Dynamics	[F,S,Su]	3
EGEN 205	Mechanics of Materials	[F,S]	3
EGEN 211	Honors Statics	[F,S,Su]	3
EIND 313	Work Analysis & Design	[S]	3
EIND 354	Engr Probability and Statistics I	[F]	3
EIND 434	Project and Engineering Management	[F]	3
EMAT 252	Materials Science Laboratory	[F,S]	1
EMAT 452	Adv. Engineering Materials	[on demand]	3
EMEC 321	Thermodynamics II	[F,S]	3
EMEC 444	Mechanical Behavior of Materials	[F even]	3
ENSC 345	Soil and Environmental Chemistry	[S odd]	3
ETME 215	Manufacturing Processes	[F,S]	3

Note 1: Other courses may be allowed for engineering elective credit, but you should get any course you are considering approved prior to enrolling. **See your advisor about approving potential technical elective courses.**

Only courses with significant engineering content, i.e., courses that APPLY basic sciences, will be approved.

Note 2: The Bioengineering curriculum includes 10 credits of *engineering electives* and 8 credits of *bioengineering electives*. The courses listed on this list are pre-approved as engineering electives, but most of these courses are not suitable for use a bioengineering electives (unless they have "bio" content).