

BIOMEDICAL ENGINEERING ELECTIVES - FALL 2005

Technical Electives for Biomedical Engineering*		credit			credit
BE 4000	Independent study **	1 - 6			
BE 4100	Cell & Tissue Mechanics	3			
BE 4300	Advanced Polymeric Biomaterials	3			
BE 4660	Active Implantable Devices	3	On Demand	CS 4321	Introduction to Algorithms 3
BE 4700	Biosensors	3	On Demand	CS 4411	Introduction to Operating Systems 4
BE 4930	Special Topics in Biomedical Engineering **	6		CS 4421	Database Systems 3
BE 4400	Heat & Mass Transfer in Biology & Medicine	3		CS 4711	Introduction to Software Engineering 3
BE 4940	Introduction to Tissue Engineering	3		CS 4712	Software Quality Assurance 3
EE 2150	Introduction to Signal Processing	3			
EE 3120	Electric Energy Systems	3		MET 4200	Design of Experiments 3
EE 3140	Electromagnetics	3			
EE3160	Linear Systems and Controls	3		MY 3100	Materials Processing I 4
EE 3170	Microcontroller Applications	3		MY 3110	Materials Processing II 4
EE 3221	Introduction to Motor Drives	3		MY 3200	Materials Characterization I 4
EE 4232	Electronic Applications	3		MY 3210	Materials Characterization II 4
EE 4250	Communications Science	3		MY 3400	Mechanical Properties of Materials 3
EE 4261	Classical Control Systems	3		MY 3600	Sampling and Data Analysis 3
EE 4262	Digital and Non-linear Control	3		MY 4140	Ceramics & Powder Materials 3
EE 4272	Computer Networks	3		MY 4150	Composite Materials 2
				MY 4160	Corrosion and Environmental Effects 2
MEEM 3230	Heat Transfer	3		MY4200/MY5200	Scanning Electron Microscopy 2
MEEM 3501	Product Realization I	3		MY 4530	Surfaces and Interfaces 3
MEEM 3502	Product Realization II	3		MY 4710	Materials Science of Electronic Devices 3
MEEM 3700	Mechanical Vibrations	3		MY 4800	Materials & Process Selection 3
MEEM 4150	Intermediate Mechanics of Materials	3		MY 4970 ***	Fundamentals of Nanoscale Sci & Eng 1
MEEM 4170	Failure of Mat'l in Mechanics	3		MY 4970 ***	Powder Process 2
MEEM 4180	Biomechanics	3			
MEEM 4210	Computational Methods in Thermal Science	3		CM/CH 4610	Intro to Polymer Science 3
MEEM 4250	Heating/Ventilation/Air Conditioning	3		CM/CH 4620	Polymer Chemistry 3
MEEM 4403	Computer-Aided Design Methods	4		CM 4650	Polymer Rheology 3
MEEM 4635	Design with Plastics	3		CM 4710	Biochemical Processes 3
MEEM 4704	Acoustics and Noise Control	3		CM 4960	Microsystem Engineering 3

Science Electives for Biomedical Engineering*		credit			credit
BE 4000	Independent study **	1 - 6			
BE 4210	Exercise Physiology	3		CH 2400	Principles of Organic Chemistry 4
BE 4550	Aerospace Physiology	3		CH 2410	Organic Chemistry I 3
				CH 2411	Organic Chemistry Lab I 1
				CH 2420	Organic Chemistry II 3
BL 2100	Principles of Biochemistry	3		CH 2421	Organic Chemistry Lab II 2
BL 2200	Genetics	3		CH 3510	Physical Chemistry I 3
BL 2940	Human Nutrition	3		CH 3511	Physical Chemistry Lab I 2
BL 3970	Current Health Issues	3		CH 3520	Physical Chemistry II 3
BL 3060	Occupational Hygiene	2		CH 3521	Physical Chemistry Lab II 2
BL 3640	General Immunology	3			
BL 4380	Cardiopulmonary Physiology	3		PH 2200	University Physics II 3
BL 4010	Biochemistry	3			
BL 4020	Biochemistry	3			

* Some of these courses have pre-requisites. It is your responsibility to take the pre-requisites or contact the department offering the course to get it waived.

** Requires departmental approval to count as a Technical or Science Elective

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