

## Curriculum

### □ Graduate Course

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit(Assignment )	Semester	Remart	
Mandatory General Courses	CC010	Special Lecture on Leadership	1:0:0	Spring/Fall		
	CC020	Ethics and Safety I	1:0:0	Spring/Fall		
	CC500	Scientific Writing	3:0:3(4)	Spring/Fall		
	CC510	Introduction to Computer Application	2:3:3(10)	Spring/Fall		
	CC511	Probability and Statistics	2:3:3(6)	Spring/Fall		
	CC512	Introduction to Materials Science and Engineering	3:0:3(3)	Spring/Fall		
	CC513	Engineering Economy and Cost Analysis	3:0:3(6)	Fall		
	CC522	Introduction to Instruments	2:3:3(8)	Fall		
	CC530	Entrepreneurship and Business Strategies	3:0:3(6)	Fall		
	CC531	Patent Analysis and Invention Disclosure	3:0:3(6)	Spring/Fall		
Elective Courses (Select 3)	MSE501	Biomedical Biochemistry	3:0:3(3)	Spring	* CH581	
	MSE502	Biomedical Molecular Biology	3:0:3(3)	Spring	* BS524	
	MSE503	Biomedical Cell Biology I	3:0:3(3)	Spring	* BS611	
	MSE504	Biomedical Cell Biology II	3:0:3(3)	Fall	* BS612	
	MSE505	Biomedical Bioinformatics	3:0:3(3)	Spring/Fall	* BIS500	
	MSE601	Medical Science Experimental Technique	3:0:3(3)	Spring		
Elective Courses	MSE506	Current Topics of Biomedical Research	3:0:3(3)	Spring		
	MSE507	General Clinical Medicine	3:0:3(3)	Fall		
	MSE508	Cell Therapy	3:0:3(3)	Fall		
	MSE509	Introduction to Global Medicine: Biosciences, Technologies, Disparities, Strategies	3:0:3	Fall		
	MSE510	Pathology of Laboratory Animals	3:0:3	Spring		
	MSE524	Experimental Animals	3:0:3(6)	Fall		
	MSE530	Molecular & Cellular Biology of Cancer	3:0:3(3)	Fall		
	MSE545	Stem Cell Biology	3:0:3(3)	Spring		
	MSE552	Cognitive Neuroscience	3:0:3(6)	Spring		
	MSE553	Advanced Cellular and Molecular Immunology	3:0:3(3)	Fall		
	MSE602	Contemporary Seminar of Modern Medical 1	3:0:3(3)	Spring		
	MSE603	Contemporary Seminar of Modern Medical 2	3:0:3(3)	Fall		
	MSE604	Cell Therapy	2:3:3(3)	Fall		
	MSE605	Experiment for Translation Research	0:9:3(3)	Spring		
	MSE606	Molecular endocrinology	3:0:3(3)	Fall		
	MSE607	Clinical Functional Neuroimaging	3:0:3(3)	Spring		
		MSE610	Techniques of Laboratory Animal	2:3:3(3)	Fall	
		MSE611	Cellular and Molecular Immunology	3:0:3(3)	Fall	
	MSE612	Pathophysiology of Chronic Infectious Diseases	3:0:3(3)	Spring		

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	MSE614	Vascular Biology	3:0:3(3)	Fall	
	MSE622	Biochemistry of Carcinogenesis	3:0:3(3)	Fall	
	MSE700	Clinical and Biomedical Communication	3:0:3(3)	Spring	
	MSE722	Cell Signaling Networks	3:0:3(6)	Fall	
	BM521	Human Anatomy and Physiology	3:0:3(3)	Fall	
	BM522	Human Pathology	3:0:3(3)	Spring	
	BM523	Neuroiology	3:0:3(3)	Fall	
	BM524	Experimental Animals	3:0:3(6)	Fall	
	BM525	Genetics of Cancer	3:0:3(3)	Fall	
	BM526	Applied Clinical Science	3:0:3(3)	Spring	
	BM529	Biology of Disease	3:0:3(3)	Fall	
	BM531	Bioanalytical Technology	3:0:3(3)	Fall	
	BM701	Special Topics in Biomedical Sciences	3:0:3(3)	Spring	
	BM702	Special Topics in Biomedical Engineering	3:0:3(3)	Fall	
	BS524	Advanced Molecular Biology	3:0:3(3)	Spring	
	BS525	Gene Expression	3:0:3(3)	Spring	
	BS526	Molecular Virology	3:0:3(3)	Fall	
	BS543	Advenced Neurobiology	3:0:3(1)	Spring	* BiS525
	BS571	Advanced Animal Cell Engineering	3:0:3(2)	Spring	**
	BS611	Advanced Molecular Cell Biology I	3:0:3(3)	Spring	
	BS612	Advanced Molecular Cell Biology II	3:0:3(3)	Fall	
	BS626	Nucleic Acid Biochemistry	3:0:3(3)	Fall	
	BS722	Biochemistry of Carcinogenesis	3:0:3(3)	Fall	
	BS750	Selected Topics in Biotechnology	3:0:3(0)		
	BiS500	Bioinformation and Bioelectronics	3:0:3(3)	Fall	
	BiS523	Information and Electronics for Scientists	3:0:3(6)	Spring	
	BiS531	Bioinformatics	3:0:3(6)	Spring/Fall	
	BiS551	Medical Image Processing	3:0:3(3)	Springl	* EE538
	BiS554	Neural Networks	3:0:3(6)	Fall	
	BiS571	BioElectroMechanics	3:0:3(6)	Springl	
	BiS623	Bioelectronic Devices	3:0:3(3)	Spring/Fa,;	
	BiS632	Bio-Statistics	3:0:3(6)	Spring/Fall	
	BiS653	Biomedical Imaging System	3:0:3(6)	Spring	* EE737
	BiS672	Nano Electro Mechanical Systems	3:0:3(4)	Fall	
	BiS771	Nanobiotechnology	3:0:3(4)	Spring	
	PH507	Advanced Electrodynamics I	3:0:3(4.5)	Fall	
	CH521	Advanced Organic Chemistry	3:0:3(3)	Spring	
	CH581	Advanced Biochemistry	3:0:3(3)	Spring	
	CH610	Structural Biochemistry	3:0:3(3)	Spring/Fall	
	CH782	Special Topics in Biochemistry I	3:0:3(3)	Spring/Fall	

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	CH783	Special Topics in Biochemistry II	3:0:3(3)	Spring/Fall	
	MAE510	Advanced Fluid Mechanics	3:0:3(6)	Spring	
	MAE521	Viscous Fluid Flow	3:0:3(6)	Fall	
	MAE530	Advanced Mechanics of Solids	3:0:3(6)	Spring	
	MAE561	Linear System Control	3:0:3(6)	Spring	
	MAE563	Microprocessor Application	2:3:3(6)	Fall	
	MAE564	Artificial Neural Network: Theory and Applications	3:0:3(6)	Spring	
	MAE604	Metrology	2:3:3(6)	Spring	
	MAE642	Biomechanics	3:0:3(6)	Fall	
	MAE655	Robotics Engineering	3:1:3(6)	Fall	
	CBE662	Bioseparation Processes Engineering	3:0:3(3)	Fall	
	CBE664	Process for Recombinant Microorganisms	3:0:3(3)	Spring	
	MS514	Mechanical Behavior of Solids	3:0:3(3)	Fall	
	MS572	Composite Materials	3:0:3(3)	Fall	
	NQE561	Radiation Measurement Systems	3:0:3(4)	Spring	
	NQE562	Radiation Imaging Instrumentation	3:0:3(4)	Spring	
	EE535	Digital Image Processing	3:0:3(6)	Spring	
	EE561	Introduction to VLSI Devices	3:0:3(6)	Spring	
	EE682	Intelligent Control Theory	3:0:3(6)	Fall	
	EE737	Imaging Systems	3:0:3(6)	Spring	
	MSE960	M.S. Thesis Research		Spring/Fall	
	MSE966	M.S. Seminar	1:0:1	Spring/Fall	
	MSE980	Ph.D. Thesis Research		Spring/Fall	
	MSE986	Ph.D. Seminar	1:0:1	Spring/Fall	

※ Notes: 1) 400 and 500 level courses open to both undergraduate and graduate students

2) \* stands for substitutable courses