Table of Curriculum

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
Elective major Courses	MSE501	46.501	Biomedical Biochemistry	3:0:3(3)	Spring	◎ * CH581
	MSE502	46.502	Biomedical Molecular Biology	3:0:3(3)	Spring	◎ * BS524
	MSE503	46.503	Biomedical Cell Biology I	3:0:3(3)	Spring	◎ * BS611
	MSE504	46.504	Biomedical Cell Biology II	3:0:3(3)	Fall	◎ * BS612
	MSE505	46.505	Biomedical Bioinformatics	3:0:3(3)	Spring·Fall	◎ * BiS500
	MSE506	46.506	Current Topics of Biomedical Research	3:0:3(3)	Spring	◎
	MSE507	46.507	General Clinical Medicine	3:0:3(3)	Fall	◎
	MSE508	46.508	Cell Therapy	3:0:3(3)	Fall	◎
	MSE509	46.509	Introduction to Global Medicine: Biosciences, Technologies, Disparities, Strategies	3:0:3	Fall	◎
	MSE510	46.510	Pathology of Laboratory Animals	3:0:3	Spring	◎
	MSE512	46.512	Cancer Genomics	3:0:3	Fall	◎
	MSE513	46.513	Therapeutic Protein Engineering	3:0:3	Spring	◎
	MSE514	46.514	RNA Biology	3:0:3	Fall	◎
	MSE524	46.524	Experimental Animals	3:0:3(6)	Fall	◎
	MSE530	46.530	Molecular & Cellular Biology of Cancer	3:0:3(3)	Fall	◎
	MSE545	46.545	Stem Cell Biology	3:0:3(3)	Spring	◎
	MSE546	46.546	Genomic Medicine	3:0:3	Fall	◎
	MSE552	46.552	Cognitive Neuroscience	3:0:3(6)	Spring	◎
	MSE553	46.553	Advanced Cellular and Molecular Immunology	3:0:3:(3)	Fall	◎
	MSE601	46.601	Medical Science Experimental Technique	3:0:3(3)	Spring	
	MSE602	46.602	Contemporary Seminar of Modern Medical 1	3:0:3(3)	Spring	
	MSE603	46.603	Contemporary Seminar of Modern Medical 2	3:0:3(3)	Fall	
	MSE605	46.605	Experiment for Translation Research	0:9:3(3)	Spring	
	MSE606	46.606	Molecular endocrinology	3:0:3(3)	Fall	
	MSE607	46.607	Clinical Functional Neuroimaging	3:0:3(3)	Spring	
	MSE610	46.610	Techniques of Laboratory Animal	2:3:3(3)	Fall	
	MSE611	46.611	Cellular and Molecular Immunology	3:0:3(3)	Fall	
	MSE612	46.612	Pathophysiology of Chronic Infectious Diseases	3:0:3(3)	Spring	
	MSE614	46.614	Vascular Biology	3:0:3(3)	Fall	
	MSE622	46.622	Biochemistry of Carcinogenesis	3:0:3(3)	Fall	
	MSE700	46.700	Clinical and Biomedical Communication	3:0:3(3)	Spring	
	MSE722	46.722	Cell Signaling Networks	3:0:3(6)	Fall	
	BM521	70.521	Human Anatomy and Physiology	3:0:3(3)	Fall	◎
	BM522	70.522	Human Pathology	3:0:3(3)	Spring	◎
	BM523	70.523	Neuroiology	3:0:3(3)	Fall	◎
	BM525	70.525	Genetics of Cancer	3:0:3(3)	Fall	◎

Classifica tion	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
	BM526	70.526	Applied Clinical Science	3:0:3(3)	Spring	◎
	BM529	70.529	Biology of Disease	3:0:3(3)	Fall	◎
	BM531	70.531	Bioanalytical Technology	3:0:3(3)	Fall	◎
	BM701	70.701	Special Topics in Biomedical Sciences	3:0:3(3)	Spring	
	BM702	70.702	Special Topics in Biomedical Engineering	3:0:3(3)	Fall	
	BS524	21.524	Advanced Molecular Biology	3:0:3(3)	Spring	◎
	BS525	21.525	Gene Expression	3:0:3(3)	Spring	◎
	BS526	21.526	Molecular Virology	3:0:3(3)	Fall	◎
	BS543	21.543	Advenced Neurobiology	3:0:3(1)	Spring	◎
	BS571	21.571	Advanced Animal Cell Engineering	3:0:3(2)	Spring	◎
	BS611	21.611	Advanced Molecular Cell Biology I	3:0:3(3)	Spring	
	BS612	21.612	Advanced Molecular Cell Biology II	3:0:3(3)	Fall	
	BS626	21.626	Nucleic Acid Biochemistry	3:0:3(3)	Fall	
	BS722	21.722	Biochemistry of Carcinogenesis	3:0:3(3)	Fall	
	BS750	21.750	Selected Topics in Biotechnology	3:0:3(0)		
	BiS500	41.500	Bioinformation and Bioelectronics	3:0:3(3)	Fall	◎
	BiS523	41.523	Information and Electronics for Scientists	3:0:3(6)	Spring	◎
	BiS531	41.531	Genome Bioinformatics	3:0:3(6)	Spring·Fall	◎
	BiS551	41.551	Medical Image Processing	3:0:3(6)	Spring	◎
	BiS554	41.554	Neural Networks	3:0:3(3)	Fall	◎ * EE538
	BiS571	41.571	BioElectroMechanics	3:0:3(6)	Spring	◎
	BiS632	41.632	Bio-Statistics	3:0:3(6)	Spring·Fall	
	BiS653	41.653	Advanced MRI Techniques	3:0:3(6)	Spring	* EE737
	BiS672	41.672	Nano Electro Mechanical Systems	3:0:3(4)	Fall	
	BiS771	41.771	Nanobiotechnology	3:0:3(4)	Spring	
	PH507	20.607	Advanced Electrodynamics I	3:0:3(4.5)	Fall	◎
	CH521	23.521	Advanced Organic Chemistry	3:0:3(3)	Spring	◎
	CH581	23.581	Advanced Biochemistry	3:0:3(3)	Spring	◎
	CH610	23.610	Structural Biochemistry	3:0:3(3)	Spring·Fall	
	CH782	23.782	Special Topics in Biochemistry I	3:0:3(3)	Spring·Fall	
	CH783	23.783	Special Topics in Biochemistry II	3:0:3(3)	Spring·Fall	
	ME510	B7.510	Advanced Fluid Mechanics	3:0:3(6)	Spring	◎
	ME521	B7.521	Viscous Fluid Flow	3:0:3(6)	Fall	◎
	ME530	B7.530	Advanced Mechanics of Solids	3:0:3(6)	Spring	◎
	ME561	B7.561	Linear System Control	3:0:3(6)	Spring	◎
	ME564	B7.564	Artificial Neural Network: Theory and Applications	3:0:3(6)	Spring	◎
	ME604	B7.604	Metrology	2:3:3(6)	Spring	
	ME642	B7.642	Biomechanics	3:0:3(6)	Fall	
	ME655	B7.655	Advanced Robotics Engineering	3:1:3(6)	Fall	
	CBE462	39.462	Bioseparation Processes Engineering	3:0:3(3)	Fall	◎
	CBE664	39.664	Process for Recombinant Microorganisms	3:0:3(3)	Spring·Fall	

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
	MS514	34.514	Mechanical Behavior of Materials	3:0:3(3)	Fall	◎
	MS572	34.572	Composite Materials	3:0:3(3)	Fall	◎
	NQE561	33.561	Radiation Measurement Systems	3:0:3(4)	Spring·Fall	◎
	NQE562	33.562	Radiation Imaging Instrumentation	3:0:3(4)	Spring	◎
	EE535	35.535	Digital Image Processing	3:0:3(6)	Spring	◎
	EE561	35.561	Introduction to VLSI Devices	3:0:3(6)	Spring	◎
	EE682	35.682	Intelligent Control Theory	3:0:3(6)	Fall	
	EE737	35.737	Medical Imaging Technology	3:0:3(6)	Spring	
Research	MSE960	46.960	M.S. Thesis Research		Spring·Fall	
	MSE966	46.966	M.S. Seminar	1:0:1	Spring·Fall	
	MSE980	46.980	Ph.D. Thesis Research		Spring·Fall	
	MSE986	46.986	Ph.D. Seminar	1:0:1	Spring·Fall	
	MSE987	46.987	Graduate Student Seminar	1:0:1	Spring·Fall	

◎: Course mutually recognized by undergraduate and graduate programs

* : stands for substitutable courses

※Course classification, course title, and mutual recognition of credits may differ according to the effective year of the requirements.

Substitute Course List

Substitute courses in the department					
Category	**Courses currently offered**		**Courses not currently offered**		
	Course no.	Course title	Course no.	Course title	Remark
Graduate Course	CBE462	Bioseparation Processes Engineering	CBE662	Bioseparation Processes Engineering	Course No. & Course title changed
Graduate Course	ME510	Advanced Fluid Mechanics	MAE510	Advanced Fluid Mechanics	Closed course
Graduate Course	ME521	Viscous Fluid Flow	MAE521	Viscous Fluid Flow	Closed course
Graduate Course	ME595	Advanced Mechanics of Solids	MAE530	Advanced Mechanics of Solids	Closed course
Graduate Course	ME561	Linear System Control	MAE561	Linear System Control	Closed course
Graduate Course	ME642	Biomechanics	MAE642	Biomechanics	Closed course
Graduate Course	ME655	Advanced Robotics Engineering	MAE655	Robotics Engineering	Closed course
Graduate Course	MS514	Mechanical Behavior of Materials	MS514	Mechanical Behavior of Solids	Course title changed
Graduate Course	BiS653	Advanced MRI Techniques	BiS653	Biomedical Imaging System	Course title changed

Substitute courses offered by other departments					
Category	**Courses offered by the department**		**Courses offered by other departments**		
	Course no.	Course title	Course no.	Course title	Remark
Graduate Course	MSE501	Biomedical Biochemistry	CH581	Advanced Biochemistry	One-way substitution
Graduate Course	MSE502	Biomedical Molecular Biology	BS524	Advanced Molecular Biology	One-way substitution
Graduate Course	MSE503	Biomedical Cell Biology I	BS611	Advanced Molecular Cell Biology I	One-way substitution
Graduate Course	MSE504	Biomedical Cell Biology II	BS612	Advanced Molecular Cell Biology II	One-way substitution
Graduate Course	MSE505	Biomedical Bioinformatics	BiS500	Bioinformation and Bioelectronics	One-way substitution
Graduate Course	BiS554	Neural Networks	EE538	Neural Networks	One-way substitution
Graduate Course	BiS653	Advanced MRI Techniques	EE737	Medical Imaging Technology	One-way substitution

※Substitute courses may differ according to the effective year of the requirements.