

Curriculum

☐ Undergraduate Course

Classification	Subject No.	Subject Name	Lecture: Lab.: Credit (Assignment)	Semester	Remark
Mandatory Major Course	BS200	Biochemistry Experiment	0:9:3(2)	Fall	
	BS202	Cell Biology	3:0:3(4)	Fall	
	BS205	Biochemistry I	3:0:3(3)	Spring	
	BS208	Biochemistry II	3:0:3(3)	Fall	
	BS209	Molecular Biology	3:0:3(4)	Spring	
	BS319	Cell Biology Experiment	0:9:3	Spring	
Elective Major Course	BS223	Introductory Biotechnology	3:0:3	Spring	
	BS232	Microbiology	3:0:3(1)	Fall	
	BS307	Physical Chemistry for Life Science	3:0:3	Spring	
	BS312	Evolution	3:0:3	Fall	
	BS315	Genetics	3:0:3(3)	Spring	
	BS318	Developmental Biology	3:0:3	Fall	
	BS322	Biological Engineering	3:0:3(3)	Fall	
	BS325	Microbial and Cell Biotechnology	3:0:3(2)	Spring	
	BS326	Biotechnology Experiment	0:9:3(2)	Fall	
	BS332	Microbial Chemistry	3:0:3(2)	Fall	
	BS342	Enzymology	3:0:3(1)	Fall	
	BS346	Animal Behavior	3:0:3	Fall	
	BS355	Pharmacology	3:0:3(1)	Spring	
	BS357	Introduction to Neuroscience	3:0:3	Fall	
	BS358	Plant Biology	3:0:3	Spring	
	BS365	Environmental Microbiology	3:0:3(1)	Fall	
	BS371	Animal Cell Culture and Engineering	3:0:3	Spring	
	BS413	Experiments for Genetics and Developmental Biology	0:9:3	Spring	**
	BS431	Virology	3:0:3(3)	Spring	**
	BS433	Molecular Biology of Gene Regulation	3:0:3(3)	Spring	**
	BS435	Bio-Imaging	3:0:3	Spring	**
	BS442	Stem Cell Biology	3:0:3	Fall	**
	BS452	Immunology	3:0:3	Spring	**
	BS453	Physiology	3:0:3	Spring	**
	BS454	Introduction to Structural Biology	3:0:3(1)	Fall	**
	BS456	Behavioral Physiology	2:3:3	Fall	**
	BS458	Synthetic Biology	3:0:3	Fall	**
	BS462	Environmental Biotechnology	3:0:3(1)	Fall	**

※ Note: ** stands for courses open to both undergraduate and graduate students

Classification	Subject No.	Subject Name	Lecture: Lab.: Credit (Assignment)	Semester	Remark
Research	BS463	Genetic Engineering	3:0:3(3)	Spring	**
	BS465	NanoBioTechnology	3:0:3	Fall	**
	BS467	Biomaterials	3:0:3	Spring	**
	BS469	Scientific communication	3:0:3	Spring	**
	BS481	Topics in Life Science I	1:0:1		**
	BS482	Topics in Life Science II	2:0:2		**
	BS483	Topics in Life Science III	3:0:3		**
	BS484	Topics in Life Science IV	3:0:3		**
	BS485	Topics in Life Science V	3:0:3		**
	BS486	Topics in Life Science VI	3:0:3		**
	BS490	B.S. Thesis Research	0:6:3		Required
	BS495	Specified Research	0:6:1		Elective
	BS496	Seminar	1:0:1		Elective

※ Note: ** stands for courses open to both undergraduate and graduate students

☐ Graduate Course

Classification		Subject	Subject Name	Lecture:Lab.:	Semester	Remark
		No.		Credit		
				(Assignment)		
Mand- atory General Course	Mand- atory	CC010	Special Lecture on Leadership	1:0:0	Fall	
		CC020	Ethics and Safety I	1AU	Spring-Fall	
	Choose 1	CC500	Scientific Writing	3:0:3	Spring-Fall	
		CC510	Introduction to Computer Application	2:3:3	Spring-Fall	
		CC511	Probability and Statistics	2:3:3	Spring-Fall	
		CC512	Introduction to Materials and Engineering	3:0:3	Spring-Fall	
		CC513	Engineering Economy and Cost Analysis	3:0:3	Fall	
		CC522	Introduction to Instruments	2:3:3	Fall	
		CC530	Entrepreneurship and Business Strategies	3:0:3	Fall	
		CC531	Patent Analysis and Invention Disclosure	3:0:3	Spring-Fall	
CC532	Collaborative System Design and Engineering	4:0:4	Spring			
Mandatory Major		BS611	Advanced Molecular Cell Biology I	3:0:3(3)	Spring	
Course		BS612	Advanced Molecular Cell Biology II	3:0:3(3)	Fall	
Elective		BS507	General Clinical Medicine	3:0:3	Fall	**
Course		BS512	Biostatistics	3:0:3(4)	Fall	**
		BS515	Behavioral Genetics	3:0:3	Spring	**
		BS516	Advanced Genetics	3:0:3	Spring	**
		BS518	Chemical Genomics&Medicinal Systems Biology	3:0:3(1)	Fall	**
		BS521	Cancer Biology	3:0:3	Spring	**
		BS524	Advanced Molecular Biology	3:0:3(3)	Fall	**
		BS525	Gene Expression	3:0:3(3)	Spring	**
		BS526	Molecular Virology	3:0:3(3)	Fall	**
		BS528	Epigenetics	3:0:3	Fall	**
		BS531	Advanced Microbiology	3:0:3(2)	Spring	**
		BS532	Applied and Environmental Microbiology	3:0:3(1)	Spring	**
		BS536	Environmental Toxicology	3:0:3(2)	Fall	**
		BS538	Microbial Genomics	3:0:3(4)	Fall	**
		BS541	Advanced Cell Biology	3:0:3	Spring	**
		BS543	Advanced Neurobiology	3:0:3(1)	Fall	**
		BS547	Neural Development	3:0:3	Spring	**
		BS553	Omics Biology	3:0:3	Spring	**
		BS552	Advanced Fermentation Technology	3:0:3(2)	Fall	**
		BS554	Advanced Biological Engineering	3:0:3(3)	Fall	**
		BS562	Protein Design	3:0:3	Fall	**
BS564	Bioanalytical Technology	3:0:3	Fall	**		
BS571	Advanced Animal Cell Engineering	3:0:3	Spring	**		
BS582	Food Engineering I	3:0:3(2)	Fall	**		
BS584	Novel Drug Delivery Systems	3:0:3(3)	Fall	**		

※ Note: ** stands for courses open to both undergraduate and graduate students

Classification	Subject No.	Subject Name	Lecture:Lab. :Credit (Assignment)	Semester	Remark
Elective Course	BS585	Advanced Developmental Biology	3:0:3(6)	Spring	**
	BS586	Plant Developmental Biology	3:0:3	Fall	**
	BS588	Cell Signaling	3:0:3(6)	Fall	**
	BS589	Cancer Genetics	3:0:3	Spring/Fall	**
	BS613	Cellular and Molecular Immunology	3:0:3	Fall	
	BS620	Physical Biochemistry	3:0:3	Spring	
	BS622	Enzyme Chemistry	3:0:3	Fall	
	BS624	Protein Chemistry and Engineering	3:0:3	Fall	
	BS626	Nucleic Acid Biochemistry	3:0:3(3)	Fall	
	BS628	Biological Membranes	3:0:3	Fall	
	BS631	Microbial Genetics	3:0:3(2)	Spring	
	BS633	Microbial Physiology	3:0:3(2)	Spring	
	BS662	Bioseparation Technology	3:0:3	Fall	
	BS664	Numerical Methods for Biochemical Engineering	3:0:3	Fall	
	BS711	Bioinformatics	3:0:3(3)	Fall	
	BS713	Human Genomics	3:0:3(2)	Spring	
	BS720	Selected Topics in Biochemistry	3:0:3	Spring/Fall	
	BS722	Biochemistry of Carcinogenesis	3:0:3(3)	Fall	
	BS730	Selected Topics in Microbiology	3:0:3	Spring/Fall	
	BS740	Selected Topics in Cell Biology	3:0:3	Spring/Fall	
	BS742	Molecular Cell Biology	3:0:3(2)	Fall	
	BS750	Selected Topics in Biotechnology	3:0:3	Spring/Fall	
	BS760	Selected Topics in Environmental Biotechnology	3:0:3	Spring	
	BS781	Special Topics in Food Science & Technology	3:0:3	Spring	
	BS791	Scientific Writing in English	3:0:3(4)	Spring	
	BS801	Advanced Topics in Life Science I	1:0:1		
	BS802	Advanced Topics in Life Science II	2:0:2		
	BS803	Advanced Topics in Life Science III	3:0:3		
Research	BS960	M.S. Thesis Research		Spring/Fall	
	BS965	Independent Study in M.S.		Spring/Fall	
	BS966	M.S. Seminar	1:0:1	Spring/Fall	
	BS980	Ph.D. Thesis Research		Spring/Fall	
	BS986	Ph.D. Seminar	1:0:1	Spring/Fall	
	BS990	Graduate Student Seminar	1:0:1	Spring/Fall	

※ Note: ** stands for courses open to both undergraduate and graduate students