Biology Graduate Courses
Offered 2023-2024

Course	Semester	Units	Title	Faculty	Notes
7.50	FA	4-0-8	Method and Logic in Molecular Biology	Cheeseman, Lees, Lehmann, Vos, Weissman, Yamashita	Required
7.51	FA	6-0-6	Principles of Biochemical Analysis	Case, Keating, Sauer	Required
7.52	FA	4-0-8	Genetics for Graduate Students	Kaiser	Required
7.540J	FA	3-0-9	Frontiers in Chemical Biology	(L. Kiessling, M. Shoulders, O. Johnson)	Bio RE
7.546J	SP	3-0-6	Science and Business of Biotechnology	Lodish, Chen (A. Koehler, A. Lo)	Does not fulfill Bio RE; fulfills professional development requirement
7.548J	SP	1-0-2	Advances in Biomanufacturing	Sinskey (J.C. Love, S. Springs)	Does not fulfill Bio RE
7.549J	SP	2-0-4	Case Studies and Strategies in Drug Discovery and Development	(A. Wood)	Does not fulfill Bio RE
7.55	SP	2-0-7	Case Studies in Modern Experimental Design	Guarente, Ringel	Bio RE
7.571	SP	2-0-4	Quantitative Analysis of Biological Data	Davis	Two six-unit subjects of 7.571, 7.572, 7.573, 7.574 fulfills Quant course req
7.572	SP	2-0-4	Quantitative Measurements and Modeling of Biological Systems	G. Li	Two six-unit subjects of 7.571, 7.572, 7.573, 7.574 fulfills Quant course req
7.573/ 7.093	SP	2-0-4	Modern Biostatistics	Jain, Wong	Two six-unit subjects of 7.571, 7.572, 7.573, 7.574 fulfills Quant course req
7.574/ 7.094	SP	2-0-4	Modern Computational Biology	Jain, Wong	Two six-unit subjects of 7.571, 7.572, 7.573, 7.574 fulfills Quant course req
7.58	SP	5-0-7	Molecular Biology	Bell, Calo-Velazquez, Soto-Feliciano	Bio RE
7.60	SP	3-0-9	Cell Biology: Structure and Functions of the Nucleus	Boyer, Young	Bio RE
7.61	FA	4-0-8	Eukaryotic Cell Biology: Principles and Practice	Krieger, Yaffe	Bio RE
7.62	FA	4-0-8	Microbial Physiology	Sinskey, G. Walker	Bio RE
7.63J	SP	5-0-7	Immunology	Spranger (M. Birnbaum)	Bio RE
7.65J	FA	3-0-9	Molecular and Cellular Neuroscience Core I	Littleton, (M. Sheng)	Bio RE
7.66	SP	4-0-8	Molecular Basis of Infectious Disease	E. Chen, Lamason	Bio RE
7.69J	SP	3-0-9	Developmental Neurobiology	Staff	Bio RE
7.71	SP	5-0-7	Biophysical Techniques	Drennan, Schwartz	Bio RE
7.72	SP	4-0-8	Stem Cells, Regeneration, and Development	Jaenisch, Reddien	Bio RE
7.75	SP	3-0-9	Human Genetics and Genomics	Page	Bio RE

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Course	Semester	Units	Title	Faculty	Notes
7.77	SP	3-0-9	Nucleic Acids, Structure, Function, Evolution, and Their Interactions with Proteins	Bartel, Jain	Bio RE
7.80	SP	4-0-8	Fundamentals of Chemical Biology	Imperiali, (R. Raines)	Bio RE
7.81J	FA	3-0-9	Systems Biology	(J. Gore)	Bio RE; can substitute for 7.571 & 7.572 for Quant course req
7.82	SP	3-0-9	Development, Disease and Therapeutics	Jaenisch, Young	Bio RE
7.84	SP	3-0-9	Advanced Concepts in Immunology	Moura Silva, Spranger	Bio RE
7.85	FA	4-0-8	The Hallmarks of Cancer	Hemann, Jacks	Bio RE
7.86	FA	4-0-8	Building with Cells	Boyer, P. Li	Bio RE
7.88J	SP	3-0-3	Protein Folding in Health and Disease	(M. Shoulders)	Does not fulfill Bio RE
7.89J	FA	2-0-10	Topics in Computational and Systems Biology	Burge	Bio RE
7.930	FA	2-10-0	Research Experience in Biopharma	Burge (S. Clarke)	Does not fulfill Bio RE; fulfills professional development requirement
7.95	SP	3-0-9	Cancer Biology	Weinberg, Yilmaz	Bio RE
7.98J	SP	3-0-6	Neural Plasticity in Learning and Memory	Tonegawa	Bio RE
9.S913	SP	3-0-9	Special Subject in Brain and Cognitive Sciences: Neurobiology of Disease	(M. Heiman)	Bio RE
7.C51	SP	2-0-4	Machine Learning in Molecular and Cellular Biology	Davis (R. Gomez-Bombarelli, C. Coley, E. Fraenkel)	Bio RE; must be taken simultaneously with 6.C51
Microbiology Courses					
7.492J	FA	3-0-9	Methods and Problems in Microbiology	Laub, Staff	Bio RE
7.493J	FA	4-0-8	Microbial Genetics and Evolution	Grossman, Staff	Bio RE