

The following is a list of courses that may be taken to fulfill the MCO Program elective requirement.

Note: If a course is grayed-out, it is not offered in the current academic year.

COURSE	TITLE	FACULTY	SEMESTER	
			Fall	Spr
APMTH 115	Mathematical Modeling	Zhiming Kuang		x
BCMP 234	Cellular Metabolism and Human Disease	Thomas Michel		x
BCMP 236	Modern Drug Discovery: from Principles to Patients	Timothy Mitchison		x
BIOPHYS 170	Evolutionary and Quantitative Genomics	Leonid Mirny	x	
BIOPHYS 205	Computational and Functional Genomics	Martha Bulyk/Shamil Sunyaev		x
BIOPHYS 242R	Special Topics in Biophysics	Venkatesh Murthy/Maya Bulyk		x
BIOSTAT 281	Genomic Data Manipulation	Curtis Huttenhower/Eric Franzosa		x
CELLBIO 212	Biology of the Cancer Cell: From Molecular Mechanisms to Therapeutic Implications	David Frank		x
CHEM 101	Chemical Biology Towards Precision Medicine	Stuart Schrieber	x	
CHEM 110	The Chemistry and Biology of Therapeutics	Matthew Shair, Brian Lau	x	
CHEM 161	Statistical Thermodynamics	Xiaowei Zhuang		x
CHEM 163	Frontiers in Biophysics	Adam Cohen	x	
CHEM 170	Chemical Biology	Christina Woo	x	
COMPSCI 181	Machine Learning	David Parkes		x
ENG-SCI 222	Advanced Cellular Engineering	Kit Parker	x	
HEB 1600	Evolutionary Genetics of Complex Human Traits	Maryellen Ruvolo	x	
MATH 154	Probability Theory	Cesar Cuenca		x
MCB 105	Systems Neuroscience	Florian Engert		x
MCB 125	Molecular Basis of Behavior	Catherine Dulac		x
MCB 129	The Brain: Development, Plasticity and Decline	Sam Kunes		
MCB 131	Computational Neuroscience	Haim Sompolinsky		x
MCB 133	Unique Cells and Organisms	Nick Bellono	x	
MCB 143	Neurobiology of Vision and Blindness	Sam Kunes		x
MCB 145	Neurobiology of Perception & Decision Making	Naoshige Uchida	x	
MCB 146	Experience-Based Brain Development: Causes & Consequences	Takao Hensch		x
MCB 165	Interplay Between Viruses and Their Hosts	Victoria D'Souza		x
MCB 169	Molecular and Cellular Immunology	Shiv Pillai	x	
MCB 170	Brain Invaders: Building and Breaking Barriers in the Nervous System	Laura Magnotti		x
MCB 175	Principles of Cell Physiology	Nick Bellono	x	
MCB 188	Chromosomes	Nancy Kleckner		x
MCB 195	Foundations of Systems Biology and Biological Engineering	Philippe Cluzel		x
MCB 198	Advanced Mathematical Techniques for Modern Biology	Sharad Ramanathan	x	
MCB 199	Statistical Thermodynamics & Quantitative Biology	David Nelson		x
MCB 294	Interesting Questions in Engineering and Physical Biology	Nancy Kleckner	x	
MICROBI 201	Molecular Biology of the Bacterial Cell	David Rudner/Thomas Bernhardt		x
MICROBI 210	Microbial Sciences: Chemistry, Ecology, and Evolution	Michael Gilmore		x
OEB 106	Plant Development and Differentiation	Elena Kramer		
OEB 115	Evolutionary Developmental Biology in Animals	Mansi Srivastava		x
OEB 125	Molecular Ecology and Evolution	Scott Edwards		x
OEB 145	Genes and Behavior	Yun Zhang	x	
OEB 275R	Phylogenetics and Phylogeography in the Era of Genomics	Scott Edwards	x	
OEB 290	Microbial Sciences: Chemistry, Ecology and Evolution	Michael Gilmore		x
SCRB 140	Developmental and Molecular Basis of Growth and Regeneration	Fernando Camargo	x	
SCRB 145	From Cells to Tissues, in Sickness and in Health	Ya-chieh Hsu		x
SCRB 150	Human Genetics: Mining Our Genomes for an Understanding of Human Variation and Disease	Kevin Eggan		x
SCRB 178	Immunology: New Tracks and Greatest Hits	Jonathan Hoggatt		
STAT 110	Introduction to Probability	Joseph Blitzstein	x	
STAT 111	Introduction to Statistical Inference	Neil Shephard		x
STAT 215	Introduction to Computational Biology and Bioinformatics	Xiaole (Shirley) Liu		x