Bioinformatics and Systems Biology Graduate Program

2009-10 Projected Course Offerings

Please note: Departments may change the quarter in which their courses are offered. Refer to the schedule of classes for an active listing. The next quarter's schedule is posted Friday of 5th week.

CORE COURSES	**Fall**	**Winter**	**Spring**
Bioinformatics I: Biological Data and Analysis Tools (PHAR 201)	X		
Bioinformatics II: Sequence and Structure Analysis Methods and Applications (BENG 202/CSE 282)		X	
Bioinformatics III: Genomic Analysis (BENG 203/CSE 283)			X
Bioinformatics IV: Statistical Methods in Bioinformatics (MATH 283)		X	
BNFO 281: Bioinformatics and Systems Biology Seminar	X	X	
Elective 1: Biochemistry			
BENG 230A: Biochemistry	X		
CHEM 209: Macromolecular Recognition	X		
CHEM 213: Biophysics of Protein Function (may not be offered every year)			X
CHEM 216: Enzymes and Chemical Biology (may not be offered every year)			
Elective 2: Molecular Genetics			
BICD100: Genetics	X	X	X
BGGN 220: Advanced Molecular Biology	X		
BGGN 223: Graduate Genetics			X
Elective 3: Cell Biology			
BICD110: Cell Biology	X	X	X
BICD130: Embryos, Genes, and Development		X	
BGGN 222: Advanced Cell Biology		X	
BGGN 230: Signal Transduction		X	
Elective 4: Algorithms			
CSE 200: Computability and Complexity			X
CSE 202: Algorithm Design and Analysis		X	
MATH 261A: Probabilistic Combinatorics and Algorithms	X		
Elective 5: Machine Learning and Data Mining			
CSE 250A: Artificial Intelligence: Search and Reasoning	X		
CSE 250B: Artificial Intelligence: Learning		X	
CSE 254: Statistical Learning		X	
Elective 6: Bioinformatics and Systems Biology			
BENG 212: Systems Biology and Bioengineering II: Network Reconstruction		X	
BENG 213: Systems Biology and Bioengineering III: Building and Simulating Large-Scale In Silico Models			X
BENG 253: Biomedical Transport Phenomena			
CSE 280A: Algorithms in Computational Biology		X	
Elective 7: Mathematics and Statistics			
MATH 274: Numerical Methods in Science and Engineering	X		
MATH 280A: Probability Theory	X		
MATH 281A: Mathematical Statistics	X		
MATH 281B: Mathematical Statistics		X	
PHYS 210A: Equilibrium Statistical Mechanics			X