



SCHOOL OF MOLECULAR & CELLULAR BIOLOGY
 University of Illinois at Urbana-Champaign



Approved List of Advanced Courses for MCB Majors
 Revised and Effective for Spring 2008

The MCB major requires at least four MCB courses (15–16 hours) at the 300- or 400-level from the School of MCB (MCB) and the Departments of Biochemistry (BIOC), Molecular & Integrative Physiology (MIP), Microbiology (MICR), and Cell & Developmental Biology (CDB), and the Programs in Biophysics & Computational Biology (BIOP) and Neuroscience (NEUR). One course from this list with a laboratory component is required. Those courses which count as a laboratory course are marked with an asterisk (*). The College of LAS, for its Sciences and Letters Curriculum, requires each student to earn at least 21 hours in advanced courses. The official LAS list can be found in the most current edition of the LAS Student Handbook or online at www.las.uiuc.edu/students/advising/handbook. This document was last updated on 11 Nov, 2007.

Term (s) Offered	Course	Course Title	Cr Hrs	Lab Course *	Instructor(s)	Cross Listed Courses
FA, SP, SU	MCB 300	Microbiology	3		FA, SP: Jack Ikeda, Tina Knox, Abigail Salyers SU: Gail Grabner	
FA, SP	MCB 301	Experimental Microbiology	3	*	FA: Renee Alt, Jack Ikeda SP: Renee Alt, Gail Grabner	
SP	MCB 312†	Applied Microbiology Methods	2	*†	Kenneth Chapman	
FA	MCB 315	Cells and Tissues Laboratory	2	*	Joanne Manaster	
FA	MCB 316	Intro Eukaryotic Molec Genet	3		Mary Schuler	
FA, SP, SU	MCB 334†	Functional Human Anatomy	5	†	John Hough	
FA	MCB 400	Cell Structure and Function	4		Lyne Levesque , Kevin Xiang	
FA	MCB 401	Cell & Membrane Physiology	3		Claudio Grosman	
SP	MCB 402	Sys & Integrative Physiology	3		M. Joan Dawson , Willem Els, Albert Feng , Ann Nardulli	
FA	MCB 403	Cell & Membrane Physiology Lab	2	*	Carl Malmgren	
SP	MCB 404	Sys & Integrative Physiol Lab	2	*	Carl Malmgren	
SP	MCB 405	Genetics and Genomics	4		David Rivier	
SP	MCB 406	Gene Expression	3		Craig Mizzen , David Shapiro	BIOC 406
SP	MCB 408	Immunology	4		David Kranz , Scott Siechen	
SP	MCB 410	Developmental Biology	4		Huey Hing	
FA	MCB 412	Cellular Molec Neurobiology	3		Julia George	NEUR 422
SP	MCB 413	Endocrinology	3		Milan Bagchi , Ann Nardulli , O. David Sherwood	
FA	MCB 414	Introduction to Neurobiology	3		Richard Kollmar	NEUR 404
FA	MCB 415	Struct Funct of Nervous System	4	*	Eve Gallman	NEUR 425
SP	MCB 416	Integrative Neurophysiology	3		Lee Cox , Albert Feng , Rhanor Gillette	NEUR 426
SP	MCB 417	Modeling Neural Systems	4	*	Thomas Anastasio	BIOP 417, NEUR 427
NCBO	MCB 418	Human Genetics	3		Not currently being offered on a regular basis	
SP	MCB 419	Brain, Behavior & Info Process	3		Mark Nelson	BIOE 419, BIOP 419, NEUR 419
NCBO	MCB 420	Molecular Immunology	3		Not currently being offered on a regular basis	
FA	MCB 421	Microbial Genetics	3		John Cronan , Jeffrey Gardner	
NCBO	MCB 422	Microbial Genetics Techniques	4	*	Not currently being offered on a regular basis	
NCBO	MCB 423	Evolution in a Microbial World	3		Carl Woese As of SP '07 only offered as a graduate course	
SP	MCB 424	Microbial Biochemistry	3		William Metcalf	
NCBO	MCB 425	Molecular Biophysics	3		Not currently being offered	BIOP 420
FA	MCB 426	Bacterial Pathogenesis	3		Brenda Wilson	
NCBO	MCB 427	Infection and Immunity	3		Edward Rov , Richard Tappino	

Term (s) Offered	Course	Course Title	Cr Hrs	Lab Course *	Instructor(s)	Cross Listed Courses
FA	MCB 428	Bacterial Pathogens Laboratory	2	*	Gail Grabner	
SP	MCB 429	Cellular Microbiology & Disease	3		Steven Blanke	
SP	MCB 430	Molecular Microbiology	3		Andrei Kuzminov	
FA	MCB 431	Microbial Physiology	3		Carin Vanderpool	
SP	MCB 432	Computing in Molecular Biology	3		Gary Olsen	
NCBO	MCB 433	Viral Pathogenesis	3		Not currently being offered on a regular basis	
SP	MCB 434	Food & Industrial Microbiology	3		Hans-Peter Blaschek , Scott Martin	FSHN 471
SP	MCB 435	Microbial Ecology & Evolution	3		Rachel Whitaker	
SP, not '08	MCB 441	Comparative Animal Physiology	3		Rhanor Gillette , Kurt Kwast	
SP	MCB 442	Comparative Immunobiology	4		H. Rex Gaskins , Keith Kelley	ANSC 450, PATH 510
SP	MCB 446	Physical Biochemistry	3		Antony Crofts , Robert Gennis	BIOC 446, CHEM 472
SP	MCB 460	Regeneration and Medicine	3		Jo Ann Cameron	
SP, not '08	MCB 480	Eukaryotic Cell Signaling	3		Jie Chen	
SP	MCB 481	Developmental Neurobiology	3		Lori Raetzman	
NCBO	MCB 482	Biological Clocks	2		Not currently being offered on a regular basis	
FA	MCB 484	Model Organisms & Epigenetics	3		Peter Jones	
FA, SP	MCB 493	Special Topics Mol Cell Biol	2	*†	See online Class Schedule	
FA	BIOC 440B†	Physical Chemistry Principles	4		Satish Nair , Antony Crofts	
FA, SP	BIOC 455	Technqs Biochem & Biotech	4	*	Gail Grabner	
FA	BIOP 401	Introduction to Biophysics	3		Maria Spies , Colin Wraight	
SP	BIOP 432	Photosynthesis	3		Stephen Long , Donald Ort	CPSC 489, IB 421
FA, SP	BIOP 470	Computational Chemical Biology	3		Zaida Luthey-Schulten	CHEM 470
FA	NEUR 403	Memory and Amnesia	3		Neal Cohen	PSYC 403
SP	NEUR 405	Cognitive Neuroscience	3		Monica Fabiani , Brian Gonsalves	PSYC 404
FA, SP	NEUR 411†	Bio Psych Lab	4		Neal Cohen , Rachael D. Rubin	PSYC 411
NCBO	NEUR 412	Neurobiology of Vision	4		Not clear as to who might replace Joseph Malpeli after his retirement.	PSYC 412
SP	NEUR 413	Psychopharmacology	3		Joshua Gulley	PSYC 413
FA	NEUR 414	Brain, Learning, and Memory	3		Paul Gold	PSYC 414
NCBO	NEUR 415	Human Neuropsychology	3		Not currently being offered on a regular basis	PSYC 415
NCBO	NEUR 421	Principles of Psychophysiology	3		Not currently being offered on a regular basis	PSYC 421
NCBO	NEUR 444	Hormones and Behavior	3		Not currently being offered on a regular basis	PSYC 444, IB 430
SP	PATH 494	Principles of Virology and Viral Pathogenesis	3		D. Yoo and D.L. Rock	

FA: Fall; SP: Spring; SU: Summer; NCBO: Not currently being offered on a regular basis.

†MCB 312: Will only count toward advance MCB hours for students who entered UIUC [prior to fall 2005](#).

†MCB 334: Fulfills advanced MCB course requirement of all students, but will only count as an advanced MCB lab for students who entered UIUC [prior to fall 2005](#).

†MCB 493: There may be specific sections of MCB 493 (JLM) that may count as an advanced lab. Please consult an advisor to confirm.

†BIOC 440B: Only Section B is approved as an advanced MCB course.

†NEUR 411 has been approved for repeated credit, but only credit hours associated with the first enrollment in the course will be counted as advanced hours toward the MCB degree.