MCB Upper Division Electives Guide (Fall 2018 offerings shaded)

Course availability is subject to change. Please check the current Schedule of Classes for current course offerings.

REQUIREMENT

Course	Course Title	Unit	Core Elec	Lab/ Res.	Wrt Emp.	Prerequisites	Special Registration Instructions	Usually Offered
NROS 307	Cellular Neurophysiology	3				MCB 181R and CHEM 151	contact beccav@email.arizona.edu	F
MCB 315	Quantitative Biology	3	x			Pre-calculus or placement in Calculus I		F
MCB 325	The Biology of Cancer	3	x			MCB 181R		F
ECOL 326	Genomics	3				ECOL182R/L		F, SS
ECOL 335	Evolutionary Biology	4				MCB 181R/L and ECOL 182R/L		S
PLS 340	Introduction to Biotechnology	3				MCB 181R		F
ECOL 346	Bioinformatics	4				MCB 304 or ECOL 326		S
PLS 359	Plant Cell Structure and Function	3				MCB 181R/L, ECOL 182R/L, CHEM 241A/243A, Rec. MCB 304		F, W
PLS 360	Principles of Plant Physiology	3				MCB 181R/L, CHEM 241B		S
PLS 361	Principles of Plant Physiology Lab	1				PLS 360 (or concurrent registration)		S
ECOL 379	Evidence-Based Medicine	3			x	C or better in MATH 112 and Honors Standing		S
PSIO 380	Fundamentals of Human Physiology	4				none	contact bertha@email.arizona.edu	F, S
BIOC 384	Foundations in Biochemistry	3				MCB 181R and CHEM 241A		F, S, SS, W
MCB 396	Special Topics in MCB	1				senior or junior standing		F, S
MCB 396B	Undergraduate Tutoring Seminar	3				completion of MCB 181R	contact Dr. Jorstad (sjorstad@email.arizona.edu)	F, S,SS
MCB 396H	MCB Honors Special Topics Seminar	1				active honors & senior or junior standing		F, S
MCB 396I	Career Explor. & Professional Dev.	2				none		F
MCB 397C	STEM Outreach and Recruitment	1				none		F, S
MIC 403R	Biology of Animal Parasites	3	x			12 units of biology and microbiology		F, S
MCB 404	Bioethics	3			x	MCB 181R/L & ECOL 182R/L		F, S, SS
MCB 416A	Statistical Bioinformatics and Genomic Analysis	3	x	x		Basic statistical and computer programming knowledge		S
MIC 420	Pathogenic Bacteriology	3	x			CHEM 241B/243B		F
MIC 421B	Microbiological Lab Techniques	3	x	x		MIC 205A/L	MCB majors may only register using UAccess after priority reg.	F
MCB 422	Problem Solving with Genetic Tools	3		x	x	MCB 304		F, S, SS
PLS 424R	Plant Biotechnology	3				PLS 340 and PLS 360		S
MCB 425	Cancer Discoveries	3	x			MCB 302 or 325		S
PLS 428R	Microbial Genetics	3	x		x	MCB 181R/L		S
ECOL 430	Conservation Genetics	3				MCB 304		F
NROS 430	Neurogenetics	3	x			MCB 181R and MCB 305	contact beccav@email.arizona.edu	S
MIC 433	Medical and Molecular Virology	4	x			MCB 181R/L & MIC 205A or consent of instructor		S
PLS 448A	Plant Biochem. & Metabolic Engineering	3	x			BIOC 462A/B or consent of instructor		F
MIC 452	Antibiotics: A Biological Perspective	3	x			CHEM 151, MCB 181R; MIC 205aArecommended		F
BIOC 462A	Biochemistry I	4	x			MCB 181R and CHEM 241B	contact omendoza@email.arizona.edu	F
PSIO 465	Systems Neurophysiology	3				PSIO 303 or PSIO 305, or consent of instructor	contact bertha@email.arizona.edu after Priority Registration to enroll	S
PSIO 467	Endocrine Physiology	3	x			MCB 181R/L & ECOL 182R/L	contact bertha@email.arizona.edu after Priority Registration to enroll	F
MCB 473	Recombinant DNA Methods and Apps	4		x	x	MCB 181R & MCB 181L		S
CMM 479	The Art of Scientific Discovery	3				none		F
ECOL 480	Math Models in Biology	3				MATH 129		S
MCB 480	Introduction to Systems Biology	3	x			MCB 181R/L, MATH 129, one additional upper division biology/biochem course		F
MCB 482	Modeling Human Disease	3	x			MCB 304 and 305		S
PSIO 484	Cardiovascular Muscle Bio. & Disease	3	x			MCB 305	contact bertha@email.arizona.edu after Priority Registration to enroll	S
MCB 392/492	Directed Research	3+		x*		none	see note at bottom of page	F, S, SS
MCB 497A	Special Tutoring Workshop	3				Consent of instructor.		F, S
MCB 498	Senior Capstone I	3+		x*		senior standing	see note at bottom of page	F, S, SS
MCB 498	Senior Capstone II	3+			x	senior standing	see note at bottom of page	F, S, SS
MCB 498H	Senior Honors Thesis I	3		x*		senior standing	see note at bottom of page	F, S, SS
MCB 498H	Senior Honors Thesis II	3			x	senior standing	see note at bottom of page	F, S, SS
MCB 399/499	Independent Study	3+		x*		none	see note at bottom of page	F, S, SS
MCB 399/499H	Honors Independent Study	3+		x*		none	see note at bottom of page	F, S, SS

To register for research units, please visit http://mcb.arizona.edu/undergraduate-research for the appropriate forms.

** if lab-based, inquiry-driven, and approved as MCB-related work*