

Applied Biotechnology Minor

Applied Biotechnology Minor Core - needs all three courses				
Course	Title	Units	Offered	Prereqs/Notes
MIC 285R	Principles of Microbiology	3	SP	MCB 181R, MCB 181L, ECOL 182R, ECOL 182L, CHEM 103A, CHEM 103B, CHEM 104A, CHEM 104B. MIC 285L Concurrent enrollment is strongly recommended
PLS 340	Introduction to Biotechnology	3	F	Either PLS 240, MCB 181R, or MIC 205
NSC 371R	Fermented Foods and Beverages Lecture	3	SP	MIC 285R + MIC 285L, or MIC 205A + MIC 205L
Applied Biotechnology Minor Core Electives - needs 5 - 8 units				
Course	Title	Units	Offered	Prereqs/Notes
MIC 285L	Principles of Microbiology Laboratory	1		
MIC 430	Food Microbiology and Biotechnology	3	SP	ACBS 380R
NSC 430L	Advanced Food Science & Microbiology Laboratory	2	F	MIC 430 strongly recommended
NSC 351R	Fundamentals of Food Science	3	F, SP, SM	CHEM 152, NSC 101 or NSC 170C1, must not have taken NSC 353, + Adv Stnd in NSC Major or Department Consent
NSC 351L	Food Studies Laboratory	1	F, SP, SM	NSC 351R (or concurrent), \$77 Course Fee
NSC 371L	Fermented Foods and Beverages Lan	1	SP	None listed, includes 2-3 field trips to local food processors
PLS 340L	Biotechnology Laboratory	2	SP	CHEM 152, MCB 181, + MIC 285 or PLS 340, \$60 Course Fee
PLS 424R	Plant Biotechnology	3	SP odd yrs	PLS 340 + PLS 360
PLS 434	Industrial Biotechnology	3	F	MCB 181R + CHEM 151
Applied Biotechnology Other Electives - Needs 3 units from Core Electives or this list				
Course	Title	Units	Offered	Prereqs/notes
ACBS 320	Principles of Dairy Product Processing and Safety	3	SP	None listed
MIC 328L	Microbial Physiology Lab	1	SP	MIC 285L or MIC 205L
MIC 328R	Microbial Physiology	3	SP	CHEM 241A + MIC 285R or MIC 205A
MIC 329A	Microbial Diversity	3	F	MCB 181R
MIC 350	Core Concepts in Molecular Microbiology	3	F	MIC 285R or MIC 205A
MIC 421B	Microbiological Techniques	5	F	MIC 285R + MIC 285L or MIC 205A + MIC 205L, \$135 Course Fee
NSC 308	Nutrition and Metabolism	3	F, SP, SM	CHEM 152 or CHEM 142, MCB 181R or PSIO 201, NSC 101 or NSC 170C1, + Adv Stnd in NSC Major or Department Consent
NSC 310	Principles of Human Nutrition in Health and Disease	3	F, SP, SM	None listed
PLS 245	Plants, Genes, and Agriculture	3	SP	None listed
PLS 307	Origins of Food Plants	3	SP even yrs	Required to attend at least one of the Saturday field trips
PLS 312	Animal and Plant Genetics	4	SP	MCB 181R, CHEM 152, Recommended MCB 181L + CHEM 246A
PLS 358	Plant Molecular Biology	3	SP	MCB 181R or equivalent
PLS 415	Plant Breeding and Genetics	3	SP	PLS 312 + (MATH 263 or equivalent)
PLS 428L	Microbial Genetics Laboratory	2	SP	ECOL 320, PLS 312 + PLS 428R (or concurrent), \$70 Course Fee
PLS 449A	Plant Generics and Genomics	3	Contact Dept	PLS 312 + (MATH 263 or equivalent)