Montana State University - College of Agriculture **Plant Science & Plant Pathology Department**

Program of Study for:

Student ID #:

Biotechnology - Plant Systems Options
2016 Catalog

Required	Cr.	Sem.	Yr.
BIOB 105CS- Intro to Biotechnology (PSPP 101CS)	3	F	
BIOB 170IN - Principles Biological Diversity (BIOL 101IN)	4	F,S / S	
CHMY 141 - College Chemistry I (CHEM 131) ***prereq. M 121Q***	4	F,S,Su	
BIOB 160 - Prin Living Sys ***or*** BIOB 260 - Cell & Molec Biol ***(prereqs)***	4	F,S / F	
CHMY 143 - College Chemistry II (CHEM 132)	4	F,S,Su	
BIOB 375 - General Genetics (BIOL 301) ***prereq. BIOB 160***	3	F,S	
CHMY 211 - Elements Organic Chem (CHEM 215) ***or***	5	F,S	
CHMY 321- Organic Chemistry I (CHEM 311) ***and***	4	F,Su	
CHMY 323- Organic Chemistry II (CHEM 312)	4	S,Su	
BIOM 360- General Microbiology (MB 301) ***prereq. BIOB 160***	5	F,S	
ECNS 101IS- Economic Way of Thinking (ECON 101IS)	3	F,S	
Communications/ Math min 1.7 GPA	**Cr.**	**Sem.**	**Yr.**
WRIT 101W - College Writing I (ENGL 121W)	3	F,S,Su	
Math- two groups of options:			
M 161Q - Survey of Calculus (MATH 160Q) ***and***	4	F,S,Su	
BIOB 318 Biometry (PSPP 318) ***or***	3	F	
STAT 216Q- Elementary Statistics	3	F,S,Su	
or take the following two courses			
M 165Q -Calculus for Technology I (MATH 175Q) ***and***	3	F,S	
M 166Q -Calculus for Technology II (MATH 176Q)	3	F,S	
Junior Year	**Cr.**	**Sem.**	**Yr.**
BCH 380 - Biochemistry (BCHM 340) ***prereq. BIOB 160 & CHMY 211***	5	F,S,Su	
BIOB 430 - Plant Biotech (PSPP 426) ***prereq. BCH 380***	3	S even	
BIOO 433 - Plant Physiology (PSPP 450) ***prereq. BIOB 170IN & Junior***	3	S	
HORT 447 - Advanced Plant Propagation (PSPP 447)	3	F even	
PHSX 205 - College Physics I (PHYS 205) ***prereq. M 151Q***	4	F,S,Su	
PHSX 207 - College Physics II (PHYS 206)	4	F,S,Su	
Senior Year	**Cr.**	**Sem.**	**Yr.**
BIOB 490R - Research (PSPP 490) ***or*** BIOB 498 - Internship (PSPP 476)	(2-4)	F,S,Su	
BIOB 499 - Plant Biotechnology Capstone (PSPP 429)	2	S	
BIOM 421 - Concepts in Plant Path (PSPP 421) ***prereq. BIOB 170IN***	3	S	
BIOO 460 - Plant Metabolism (PSPP 460) ***prereqs***	3	S odd	
Take one of the following:			
BCH 444R - Biochem & Mlclr Bio Mthds (BCHM 441) ***prereq. BCH 441***	3	S	
BIOM 455R - Research Meth in Microbiol (MB 450) ***prereq. BCH 380***	4	S	
Restricted Electives - Choose Five	**Cr.**	**Sem.**	**Yr.**
AGSC 341 - Field Crop Production (PSPP 341)	3	S even	
AGSC 441 - Plant Breeding and Genetics (PSPP 441) ***prereqs***	3	S odd	
BCH 441 - Biochem of Macromolecules (BCHM 441) ***prereqs***	3	F	
BCH 442 - Metabolic Regulation (BCHM 442) ***prereqs***	3	S	
BIOB 425 - Adv. Cell & Molecular Biology (BIOL 302) ***prereqs***	3	S	
BIOB 420 - Evolution ***or*** BIOB 428 - Molecular Evolution	3	F,S	
BIOB 477 - Genome Science and Gene Expression	5	S	
BIOB 480 - Conservation Genetics ***or*** BIOB 484 - Population Genetics	3	F,F even	
BIOE 424 - Ecology of Fungi (PSPP 424) ***prereqs***	3	F odd	
BIOM 410 - Microbial Genetics (MB 449) ***prereqs***	3	S	
BIOM 423 - Mycology (PSPP 423) ***prereq. BIOB 170IN***	3	F even	
BIOM 430 - Applied & Environmental Microbiology (MB 433) ***prereq***	4	F	
BIOM 450 - Microbial Physiology (MB 420) ***prereqs***	3	F	
BIOO 437 - Plant Development (PSPP 457/BIOL 437) ***prereq. BIOB 375***	3	S even	

Core 2.0	Cr.	Sem.	Yr.
US			
W			
Q			
D			
CS			
IA/RA			
IH/RH			
IN/RN			
IS/RS			
R			

Substitutions for Required Courses	
Substitute	**For**

120 credits required,
42 minimum upper division
Minimum GPA: 2.0

student signature *date*

advisor signature *date*

dept. certifying officer signature *date*

verify appropriate prerequisites

Revised: 6/23/2016