

Dept of Crop and Soil Sciences

Crop Science- Biotechnology Option

Advising Sheet • Fall 2008

Student Name _____

Option: _____

Student ID# _____

Advisor: Dr. Steve Ullrich, ullrich@wsu.edu, 335-4936

Email _____

GENERAL EDUCATION REQUIREMENTS (42 credits)

	<u>Credits</u>	<u>Term</u>	<u>Grade</u>	<u>Offered</u>
World Civilization				
GEN ED 110 [A]	3	_____	_____	F,S,SS
GEN ED 111 [A]	3	_____	_____	F,S,SS
Communication Proficiency				
ENGL 101 [W]	3	_____	_____	F,S,SS
HD 205 [C]				
or COMST 102 [C]	3	_____	_____	F,S,SS
Intercultural [I,G,K]	3	_____	_____	F,S,SS
Arts and Humanities [H or G]	3	_____	_____	F,S,SS
Arts and Humanities/Social Sciences				
ELECTIVE [H,G,S, or K]	3	_____	_____	F,S,SS
Social Sciences and Humanities				
ECONS101 or ECONS102 [S]	3	_____	_____	F,S,SS
Mathematics Proficiency				
STAT 212 [N]	3	_____	_____	F,S,SS
**Biotechnology Option				
MATH 140 [N] or 171 [N]	4	_____	_____	F,S,SS
Sciences				
BIOL106 [B]	4	_____	_____	F,S,SS
BIOL107 [B]				
or BIOL 120 [B]	4	_____	_____	F,S,SS
CHEM 101 [P]	4	_____	_____	F,SS
** Biotechnology Option				
CHEM 105 [P]	4	_____	_____	F,S,SS
Tier III Course _____	3	_____	_____	F,S,SS
Diversity [D]S,F,SS				

NOTE: General Education Requirements (GER) relative to catalog for year student begins college

CHECKLIST

COMPLETE

GER	(42 credits)	_____
Crop Science Core	(33 credits)	_____
Biotechnology Option	(38 credits)	_____
Electives	(7 credits)	_____
TOTAL	(at least 120 credits)	_____
At least 40 of the 120 credits upper division		_____
Certification of Major		_____
***To certify in CSS, you must have at least 24 credit hours		
Writing in the major (6 cr. M courses)		_____
Writing Portfolio/Writing Exam		_____
NOTE: 42 GER credits listed above meet both WSU GER minimum requirement and additional departmental major and option requirements		

CROPS CORE REQUIREMENTS (33 credits)

	<u>Credits</u>	<u>Term</u>	<u>Grade</u>	<u>Offered</u>
BIOL 320 Intro Plant Physiology	4	_____	_____	F
CHEM 102 Chem related to Life Science or				
** Biotechnology Option - CHEM 106	4	_____	_____	S
CROPS 102 Cultivated Plants	3	_____	_____	F
CROPS 202 Crop Growth & Development	4	_____	_____	S
CROPS 305 Ecology & Mgt of Weeds	3	_____	_____	F
CROPS 411 [M] Crop Environ Interactions	3	_____	_____	S
CROPS 412 Seminar	1	_____	_____	F
CROPS 495, 497, 498, or 499- Research Experience, Study Abroad, Internship, or Special Topics	1	_____	_____	F,S
MATH 107 Precalculus	4	_____	_____	F,S,SS
PI P 429 General Plant Pathology	3	_____	_____	F
SOILS 201 Soil: A Living System	3	_____	_____	F,S

Option Requirements:

The Biotechnology option is a program for students interested in careers as laboratory or research technicians in plant biotechnology, breeding, genetics, or physiology and is also for students preparing for advanced degrees in these areas. Students may find employment in industry, government, or university labs.

OPTION: Biotechnology

(38 credits)

Required Courses:

	<u>Credits</u>	<u>Term</u>	<u>Grade</u>	<u>Offered</u>
CHEM 345 Organic Chemistry I	4	_____	_____	F,S
MBIOS 301 General Genetics	4	_____	_____	F,S
MBIOS 303 Intro Biochemistry	4	_____	_____	F,S
MBIOS 305 General Microbiology	4	_____	_____	F,S
STAT 412 Biometry	3	_____	_____	F,S
CROPS 444/445 Plant Breeding I&II	4	_____	_____	S

One of the Following:

- BIOL 332 Systematic Botany (F)
 - BIOL 372 General Ecology (F,S)
 - BIOL 409 Plant Anatomy (F)
 - ENTOM 340 Agricultural Entomology (S)
- 4 _____

Molecular Courses-Two of the Following:

- CROPS 425 Crop Biotechnology (S)
 - BIOL 325 Plant Biotechnology
 - MBIOS 401 Cell Biology (S)
 - MBIOS 404 Molecular Genetics (S)
- 6 _____

Lab Courses-5 credits minimum:

- MBIOS 304 Intro Biochemistry Lab (3) (F,S)
 - MBIOS 360 Cell & Molecular Lab (2)
 - MBIOS 402 General Genetics Lab (3) (S)
 - MBIOS 454 Techniques in Molecular Biology (3) (F,S)
 - FSHN 462 Food Analysis (4)(S)
- 5 _____

Electives:

Elective courses may assist students in fulfilling a minor, or may be courses that are of interest to the student, yet do not meet any specific requirement. A minimum of 7 credits is needed in addition to the GER, Crop Science Core, and Biotechnology Option courses listed above, however students may take additional credits if desired.

Minimum 7 _____

Minors:

Students can obtain minors from many departments. If you decide to pursue a minor, work with your advisor and an advisor in the department of your minor to ensure that all requirements are met.

Advisor Notes: