

BIOTECHNOLOGY AND PLANT GENOMICS (B.S.PL.SC.)

Required course work includes the university requirements (see regulation J-3 (<https://catalog.uidaho.edu/general-requirements-academic-procedures/j-general-requirements-baccalaureate-degrees/#j3>)) and:

Code	Title	Hours
AGED 406 or AGED 407	Exploring International Agriculture Global Agricultural & Life Sciences Systems	3
BIOL 115	Cells and the Evolution of Life	3
BIOL 115L	Cells and the Evolution of Life Laboratory	1
ENGL 313 or ENGL 317	Business Writing Technical Writing II	3
PLSC 102	The Science of Plants in Agriculture	3
PLSC 400	Seminar	1
SOIL 205	The Soil Ecosystem	3
Select one of the following:		4-5
EPPN 154 & EPPN 155	Microbiology and the World Around Us and Microbiology and the World Around Us: Laboratory	
BIOL 250 & BIOL 255	General Microbiology and General Microbiology Lab	
Select one of the following:		4
CHEM 101 & 101L	Introduction to Chemistry and Introduction to Chemistry Laboratory	
CHEM 111 & 111L	General Chemistry I and General Chemistry I Laboratory	
Select one of the following:		3-4
MATH 143	College Algebra	
MATH 160	Survey of Calculus	
MATH 170	Calculus I	
Select one of the following:		3
PLSC 398	Internship	
PLSC 402	Undergraduate Research in Plant Science	
PLSC 499	Directed Study	
Biotechnology and Plant Genomics Courses		
BIOL 380	Biochemistry I	4
BIOL 444	Genomics	3
CHEM 112 & 112L	General Chemistry II and General Chemistry II Laboratory	5
CHEM 277 & CHEM 278	Organic Chemistry I and Organic Chemistry I: Lab	4
GENE 314	General Genetics	3
PLSC 207	Introduction to Biotechnology	3
PLP 415	Plant Pathology	3
PLSC 401	Plant Physiology	3
PLSC 433	Plant Tissue Culture Techniques	3
PLSC 440	Advanced Laboratory Techniques	4
PLSC 446	Plant Breeding	3
PLSC 486	Plant Biochemistry	3
PLSC 488	Genetic Engineering	3

STAT 251	Statistical Methods	3
Select 12 credits of Biotechnology and Genomics of Plants electives from the following:		12
BIOL 213	Structure and Function Across the Tree of Life	
BIOL 382	Biochemistry I Laboratory	
BIOL 482	Protein Structure and Function	
BIOL 485	Prokaryotic Molecular Biology	
BIOL 487	Cellular and Molecular Basis of Disease	
ENT 322	General and Applied Entomology	
PLP 416	Plant Pathology Lab	
PLSC 201	Principles of Horticulture	
PLSC 205	General Botany	
PLSC 338	Organic and Conventional Weed Management	
PLSC 407	Field Crop Production	
PLSC 410	Invasive Plant Biology	
PLSC 438	Pesticides in the Environment	
PLSC 451	Vegetable Crops	
PLSC 490	Potato Science	
SOIL 206	The Soil Ecosystem Lab	
SOIL 446	Soil Fertility	

Total Hours 90-92

Courses to total 120 credits for this degree

Fall Term 1		Hours
ENGL 101	Writing and Rhetoric I	3
PLSC 102	The Science of Plants in Agriculture	3
Oral Communication Course		3
MATH 143 OR MATH 160 OR MATH 170		3
(CHEM 101 AND CHEM 101L) OR (CHEM 111 AND CHEM 111L)		4
Hours		16
Spring Term 1		Hours
BIOL 115	Cells and the Evolution of Life	3
BIOL 115L	Cells and the Evolution of Life Laboratory	1
ENGL 102	Writing and Rhetoric II	3
STAT 251	Statistical Methods	3
Humanistic and Artistic Ways of Knowing Course		3
Hours		13
Fall Term 2		Hours
CHEM 112L	General Chemistry II Laboratory	1
CHEM 112	General Chemistry II	4
SOIL 205	The Soil Ecosystem	3
Social and Behavioral Ways of Knowing Course		3
(BIOL 250 AND BIOL 255) OR (EPPN 154 AND EPPN 155)		4
Hours		15
Spring Term 2		Hours
CHEM 277	Organic Chemistry I	3
CHEM 278	Organic Chemistry I: Lab	1
GENE 314	General Genetics	3
Humanistic and Artistic Ways of Knowing Course		3
BIOL 213 OR BIOL 382 OR BIOL 482 OR BIOL 485 OR BIOL 487 OR ENT 322 OR PLP 416 OR PLSC 201 OR PLSC 205 OR PLSC 338 OR PLSC 407 OR PLSC 410 OR PLSC 438 OR PLSC 451 OR PLSC 490 OR SOIL 206 OR SOIL 446		3
Hours		13
Fall Term 3		Hours
BIOL 380	Biochemistry I	4
PLSC 207	Introduction to Biotechnology	3
Social and Behavioral Ways of Knowing Course		3
ENGL 313 OR ENGL 317		3

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BIOL 213 OR BIOL 382 OR BIOL 482 OR BIOL 485 OR BIOL 487 OR ENT 322 OR PLP 416 OR PLSC 201 OR PLSC 205 OR PLSC 338 OR PLSC 407 OR PLSC 410 OR PLSC 438 OR PLSC 451 OR PLSC 490 OR SOIL 206 OR SOIL 446	3
Hours	16
Spring Term 3	
BIOL 444	Genomics 3
PLSC 433	Plant Tissue Culture Techniques 3
PLSC 486	Plant Biochemistry 3
International Course	3
BIOL 213 OR BIOL 382 OR BIOL 482 OR BIOL 485 OR BIOL 487 OR ENT 322 OR PLP 416 OR PLSC 201 OR PLSC 205 OR PLSC 338 OR PLSC 407 OR PLSC 410 OR PLSC 438 OR PLSC 451 OR PLSC 490 OR SOIL 206 OR SOIL 446	3
Hours	15
Fall Term 4	
PLSC 400	Seminar 1
PLSC 488	Genetic Engineering 3
PLP 415	Plant Pathology 3
American Diversity Course	3
PLSC 398 OR PLSC 402 OR PLSC 499	3
BIOL 213 OR BIOL 382 OR BIOL 482 OR BIOL 485 OR BIOL 487 OR ENT 322 OR PLP 416 OR PLSC 201 OR PLSC 205 OR PLSC 338 OR PLSC 407 OR PLSC 410 OR PLSC 438 OR PLSC 451 OR PLSC 490 OR SOIL 206 OR SOIL 446	3
Hours	16
Spring Term 4	
PLSC 401	Plant Physiology 3
PLSC 440	Advanced Laboratory Techniques 4
PLSC 446	Plant Breeding 3
Senior Experience Course	3
AGED 406 OR AGED 407	3
Hours	16
Total Hours	120

The degree map is a guide for the timely completion of your curricular requirements. Your academic advisor or department may be contacted for assistance in interpreting this map. This map is not reflective of your academic history or transcript and it is not official notification of completion of degree or certificate requirements. Please contact the Registrar's Office regarding your official degree/certificate completion status.

1. Students will be able to recognize and apply scientific principles to various laboratory techniques used for production, management or modification of a wide variety of plant species and their associated systems.
2. Students will be able to present and explain important concepts for plant molecular techniques and will be able to recognize and analyze various laboratory procedures used for analyses of different agronomic and horticultural crops.
3. Students will gain experiential practice in applying their knowledge of biotechnology and plant genomics through internships or laboratory research experiences and participation in student clubs/organizations.
4. Students will be able to communicate effectively, verbally and in writing, problems, analyses, and solutions to biotechnology problems as effected by research techniques and public opinion to a variety of audiences.