

# Class Schedule - Spring 2010

## Crop Sciences

112 **Introduction to Crop Sciences** credit: 4 hours.

Introductory course covering principles of growth, production, protection, and improvement of crop plants. Topics covered include form, function, and uses of crops; mechanisms and factors responsible for plant growth and development; crop pests and pest protection; specific crops; and advances in crop production. Concepts are discussed in lecture and reinforced in corresponding hands-on laboratory sections.

CRN	Type	Section	Time	Days	Location	Instructor
31481	laboratory	AB1	01:00 PM - 03:50 PM	W	room W13 Turner Hall	Stoller, P
31483	laboratory	AB2	09:00 AM - 11:50 AM	R	room W13 Turner Hall	Stoller, P
31487	lecture	AL1	10:00 AM - 10:50 AM	MWF	room W115 Turner Hall	Stoller, P

116 **The Global Food Production Web** credit: 3 hours.

Introduces students to the global web involved in the production of food we consume on a daily basis. Selected ecosystems of plants, people, and cultures in Asia, Africa, and Latin America will be studied based on involvement with various crops. Presents the origin and biology of plants; their evolution with humankind in various cultures; the spread and economic importance of crops around the world; and considers current hunger and environmental issues resulting from the global food web. Interactive communications with selected scientists, producers, and traders around the world through the World Wide Web and email system of the INTERNET permit students to get personal exposure to information and activities.

This course satisfies the General Education Criteria for a Non-Western Cultures course.

CRN	Type	Section	Time	Days	Location	Instructor
48193	lecture-discussion	A	06:00 PM - 08:50 PM	W	room 103 Mumford Hall	Bohn, M
Non-Western Cultures course. 3 hours						

180 **Medicinal Plants and Herbology** credit: 3 hours.

Same as HORT 180. See HORT 180.

CRN	Type	Section	Time	Days	Location	Instructor
34188	lecture	AL1	11:00 AM - 11:50 AM	MWF	room 217 Noyes Laboratory	Briskin, D

199 **Undergraduate Open Seminar** credit: 1 to 5 hours.

Experimental course on a special topic in crop sciences. Topic may not be repeated except in accordance with the Code. May be repeated to a maximum of 12 hours.

CRN	Type	Section	Time	Days	Location	Instructor
10554	independent study		ARRANGED			
Instructor Approval Required						
53000	lecture-discussion	CHP	02:00 PM - 04:50 PM	T	room W121 Turner Hall	Czapar, G
3 hours Agriculture & the Environment Agriculture and the Environment - For Chancellor's Scholars; others may enroll with the consent of the instructor and the Campus Honors program if their requirements are met. Camp Honors/Chanc Schol course.						

241 **Intro to Applied Statistics** credit: 3 hours.

Introduces fundamental statistics used to analyze and interpret data in the biological and physical sciences of agriculture, environmental sciences, and related areas. Includes descriptive and inferential statistics, measures of central tendency and dispersion, probability, correlation and regression, and tests of hypotheses. Enhances students' ability to critically assess statistical information encountered in professional and every day activities. Credit is not given for both CPSC 141 and STAT 100 or ACE 261.

This course satisfies the General Education Criteria for a Quant Reasoning I course.

CRN	Type	Section	Time	Days	Location	Instructor
31491	laboratory	AB2	01:00 PM - 02:50 PM	T	room M5 Turner Hall	Bullock, D; Pataky, J
31493	lecture	AL1	11:00 AM - 11:50 AM	MW	room W115 Turner Hall	Bullock, D; Pataky, J

261 **Biotechnology in Agriculture** credit: 3 hours.

Basic introduction to the techniques and application of biotechnology to a wide range of agricultural areas, and specific examples are given. May serve as either a terminal course explaining the techniques or as an introductory base for future studies. Same as HORT 261. Prerequisite: Any 100-level course in a biosciences discipline.

This course satisfies the General Education Criteria for a Life Sciences course.

CRN	Type	Section	Time	Days	Location	Instructor
31518	lecture-discussion	A	10:00 AM - 11:20 AM	TR	room W115 Turner Hall	Moose, S

265 **Genetic Engineering Lab** credit: 3 hours.

Laboratory/discussion course that provides a hands-on introduction to the techniques and principles of genetic engineering, recombinant DNA and the impact of molecular genetics on society. Students will isolate DNA from plants and clone specific genes into bacterial plasmids, perform polymerase chain reactions, DNA restriction

analysis and DNA blotting, and discuss the relevance of these techniques to both medicine and agriculture.  
Prerequisite: A general biology course.

Additional Class Materials Fee Required.

CRN	Type	Section	Time	Days	Location	Instructor
31495	laboratory	A	05:30 PM - 09:20 PM	M	room M5 Turner Hall	Lambert, K
ACES Class Materials 60.00 dollars.						

293 **Off-Campus Crop Sci Internship** credit: 1 to 5 hours.

Supervised, off-campus experience in a field directly pertaining to a subject matter in crop sciences. May be repeated to a maximum of 10 hours. For registration in this course, students should contact the Department Teaching Coordinator. Prerequisite: Sophomore standing, cumulative GPA of 2.0 or above at the time the internship is arranged, and consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10555	independent study		ARRANGED			
Instructor Approval Required						

294 **On-Campus Crop Sci Internship** credit: 1 to 5 hours.

Supervised, on-campus learning experience with faculty engaged in research. May be repeated to a maximum of 10 hours. For registration in this course, students should contact the Department Teaching Coordinator. Prerequisite: Sophomore standing, 2.0 GPA, consent of the advisor, and consent of the Department Teaching Coordinator.

CRN	Type	Section	Time	Days	Location	Instructor
10558	independent study		ARRANGED			
Instructor Approval Required						

295 **Undergrad Research or Thesis** credit: 1 to 4 hours.

Individual research, special problems, thesis, development and/or design work under the supervision of an appropriate member of the faculty. May be repeated in the same or subsequent terms. No more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward degree. Prerequisite: Junior standing, cumulative GPA of 2.5 or above at the time the activity is arranged, and consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10560	independent study		ARRANGED			

Instructor Approval Required

336 **Tomorrow's Environment** credit: 3 hours.

Introduction to interdisciplinary methods of analysis of environmental problems in a finite world; examination of the concept of the limits to growth; development of a working understanding of natural systems and environmental economics; and examination of various management strategies (technical, economic, and social) that can be used to improve environmental quality. Same as CHLH 336, and ENVS 336. Prerequisite: One course in the life sciences and one course in the social sciences, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
31524	lecture-discussion	A	02:30 PM - 03:45 PM	TR	room W109 Turner Hall	Rayburn, A
31527	lecture-discussion	JH	02:30 PM - 03:45 PM	TR		Rayburn, A

This section for James Scholars only. James Scholars course.

352 **Plant and Animal Genetics** credit: 4 hours.

The principles of heredity in relation to plant and animal improvement. Same as ANSC 340 and NRES 352. Prerequisite: IB 103 or IB 104.

CRN	Type	Section	Time	Days	Location	Instructor
31497	laboratory	AB1	01:00 PM - 02:50 PM	T		Diers, B; Beaver, J
31500	laboratory	AB2	03:00 PM - 04:50 PM	T		Diers, B; Beaver, J
31502	laboratory	AB3	08:00 AM - 09:50 AM	T	room M5 Turner Hall	Diers, B; Beaver, J
31503	lecture	AL1	02:00 PM - 02:50 PM	MWF	room W109 Turner Hall	Diers, B; Beaver, J

382 **Organic Chem of Biol Processes** credit: 4 hours.

An overview of the structure, properties, and reactions of carbon-containing compounds relevant to biological processes and cellular structure. The chemistry of hydro carbon, aromatic, as well as oxygen- nitrogen-, phosphorus-, and sulfur-containing compounds will be examined. Macromolecular structures including biological membranes, carbohydrates, proteins and nucleic acids will also be discussed. Prerequisites: CHEM 102 and CHEM 104 or CHEM 202 and CHEM 204.

CRN	Type	Section	Time	Days	Location	Instructor
53539	lecture-discussion	A	12:30 PM - 01:50 PM	TR		Briskin, D

396 **Undergrad Honors Res or Thesis** credit: 1 to 4 hours.

Individual research, special problems, thesis, development and/or design work under the direction of the Honors advisor. May be repeated in the same or subsequent terms. No more than 12 hours of special problems, research, thesis and/or individual studies may be counted toward degree. Prerequisite: Junior standing, admission to the ACES Honors Program, and consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10562	independent study		ARRANGED			
Instructor Approval Required						

418 **Crop Growth and Management** credit: 3 hours.

Crop production and management as influenced by environment, plant species, and cropping system; relates plant growth processes to management practices. Prerequisite: NRES 201 and CPSC 112 or equivalent, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
31547	lecture-discussion	A	11:00 AM - 11:50 AM	MWF	room W109 Turner Hall	Villamil, M

428 **Weed Science Practicum** credit: 2 hours.

Intensive course on field diagnostic skills in weed science. Topics include weed and weed seed identification, sprayer calibration, herbicide application, herbicide injury symptomatology, and field diagnostics. Students who complete the course will be encouraged to enter the North Central Weed Science Society weeds contest, which occurs during the summer. Prerequisite: CPSC 226 or CPSC 426 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
44813	lecture-discussion	A	10:00 AM - 11:50 AM	T	room W13 Turner Hall	Tranel, P; Davis, V

435 **Environmental Toxicology** credit: 3 hours.

Same as CHLH 461, ENVS 431, and IB 485. See IB 485.

CRN	Type	Section	Time	Days	Location	Instructor
45983	lecture-discussion	A	09:30 AM - 10:50 AM	TR	room 140 Burrill Hall	Francis, B

440 **Applied Statistical Methods I** credit: 4 hours.

Statistical methods involving relationships between populations and samples; collection, organization, and analysis of data; and techniques in testing hypotheses with an introduction to regression, correlation, and analysis of variance limited to the completely randomized design and the randomized complete-block design. Same as ABE 440, ANSC 440, FSHN 440, and NRES 440. Prerequisite: MATH 012 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
31563	laboratory	AB1	01:00 PM - 02:50 PM	T	room N120 Turner Hall	Bollero, G
31567	laboratory	AB2	03:00 PM - 04:50 PM	T	room N120 Turner Hall	Bollero, G
31570	laboratory	AB3	05:00 PM - 06:50 PM	T	room N120 Turner Hall	Bollero, G
31578	lecture	AL1	08:00 AM - 09:20 AM	TR	room 245 Wohlers Hall	Bollero, G

449 ***Spatial Ecosystem Modeling*** credit: 3 or 4 hours.  
Same as GEOG 469, IB 492, and NRES 469. See GEOG 469.

CRN	Type	Section	Time	Days	Location	Instructor
41138	lecture- discussion	G1	09:30 AM - 11:50 AM	T	room 338 Davenport Hall	Hannon, B
4 hours Undergraduate students register for section U1, Graduate and Professional students register for section G1 Not intended for Undergrad - Urbana-Champaign.						
38721	lecture- discussion	U1	09:30 AM - 11:50 AM	T	room 338 Davenport Hall	Hannon, B
3 hours Undergraduate students register for section U1, Graduate and Professional students register for section G1 Restricted to Undergrad - Urbana-Champaign.						

453 ***Principles of Plant Breeding*** credit: 4 hours.  
Genetic and cytological variation in crop plants; the production and control of such variation in developing varieties and hybrids; and the maintenance of high quality seed stocks. Same as HORT 453. Prerequisite: IB 103; CPSC 352 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
31549	laboratory	AB1	02:00 PM - 02:50 PM	R	room W115 Turner Hall	Kolb, F
	laboratory	AB1	02:00 PM - 03:50 PM	T	room W115 Turner Hall	Kolb, F
31550	lecture	AL1	01:00 PM - 01:50 PM	TR	room W115 Turner Hall	Kolb, F

482 ***Plant Tissue Culture*** credit: 4 hours.  
Same as HORT 482. See HORT 482.

CRN	Type	Section	Time	Days	Location	Instructor
34214	laboratory-discussion	A	02:00 PM - 03:50 PM	TR	room N107 Turner Hall	Seufferheld, M

483 **Outreach Education Skills** credit: 3 hours.

Provides graduate and undergraduate students interested in outreach and extension education programs with opportunities to develop their skills and effectiveness in development and presentation of outreach and extension programs. Same as ANSC 483. Prerequisite: Senior or graduate student status.

CRN	Type	Section	Time	Days	Location	Instructor
51262	lecture-discussion	A	03:00 PM - 04:50 PM	W	room W121 Turner Hall	Babadoost, M
	lecture-discussion	A	03:00 PM - 03:50 PM	M	room W121 Turner Hall	Babadoost, M

484 **Plant Physiology** credit: 3 hours.

Same as IB 420. See IB 420.

CRN	Type	Section	Time	Days	Location	Instructor
34657	lecture	A	11:00 AM - 11:50 AM	MWF	room 229 Natural History Bldg	Zielinski, R
49268	online	BSX	06:30 PM - 09:45 PM	T		Briskin, D

Academic Outreach restrictions and assessments apply, see <http://www.outreach.uiuc.edu>. This section is for admitted B.S. in Horticulture students only. No class spring break week (March 23). Students will need a working external microphone/speakers or headset with microphone and high speed internet. Wireless internet is not recommended. Restricted to BS: Horticulture -UIUC. OnlineMeets 19-Jan-10 - 11-May-10. AO Fees 2+4 45, and AO Tuition 2+4 313.00 dollars.

49040	online	XM	06:30 PM - 09:45 PM	T		Briskin, D
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Academic Outreach restrictions and assessments apply, see <http://www.outreach.uiuc.edu>. Open to nondegree graduate and undergraduate students and Crop Sciences MS, NRES MS and AGED MS students. No class spring break week (March 23rd.) Students will need a working external microphone/speakers or headset with microphone and high speed internet. Wireless internet is not recommended. Restricted to MS: Crop Sciences - UIUC, MS: Crop Sciences -UIUC, MS: Agricultural Educ -UIUC, MS: Nat Res Env Sci -UIUC, MS: Nat Res & Envrn Sci -UIUC, NDEG: Grad Nondegree-CE-UIUC, or NDEG: Undergrad Nondeg-CE-UIUC. OnlineMeets 19-Jan-10 - 11-May-10. AO Tuition 309, AO Tuition 277, and AO Fees 45.00 dollars.

499 **Seminar** credit: 0 to 4 hours.

Group discussion or an experimental course on a special topic in crop sciences. Approved for both letter and S/U grading. May be repeated to a maximum of 12 hours.

CRN	Type	Section	Time	Days	Location	Instructor
10564	independent study		ARRANGED			
Instructor Approval Required						
43629	laboratory	AB1	01:00 PM - 02:50 PM	W	room N120 Turner Hall	Bollero, G
4 hours App. Multivariate Statistics						
46196	lecture	AL	03:30 PM - 04:50 PM	TR		Bollero, G
App. Multivariate Statistics						
40907	conference	BP	05:00 PM - 06:20 PM	T	room W115 Turner Hall	Stoller, P; Dunker, R
2 hours Crops Contest Departmental Approval Required						

518 **Crop Growth and Development** credit: 4 hours.

Study of the physiological processes involved in growth and development of crop plants and the interaction of these processes with the environment that influences productivity. Prerequisite: CPSC 418 or CPSC 484.

CRN	Type	Section	Time	Days	Location	Instructor
31648	lecture	A	09:00 AM - 09:50 AM	MWF	room W115 Turner Hall	Below, F
Not intended for Undergrad - Urbana-Champaign.						

542 **Applied Statistical Methods II** credit: 5 hours.

Statistical methods as tools for research. Principles of designing experiments and methods of analysis for various kinds of designs, experimental (completely randomized, randomized complete block, split plots, Latin square) and treatment (complete factorial); covariate analysis; use of SAS for all analyses. Prerequisite: CPSC 440 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
52387	lecture	AL1	03:00 PM - 04:50 PM	MW	room W115 Turner Hall	Bullock, D
52388	laboratory-discussion	AY1	01:00 PM - 02:50 PM	R	room N120 Turner Hall	Bullock, D
52389	laboratory-discussion	AY2	10:00 AM - 11:50 AM	R	room N120 Turner Hall	Bullock, D

556 **Plant Breeding Literature** credit: 1 hours.

Students will read a diverse group of plant breeding journal articles, will learn skills involved in evaluating a scientific paper, and will discuss articles with plant breeding faculty members. Approved for S/U grading only. May be repeated in separate terms to a maximum of 5 hours. Prerequisite: Graduate student status.

CRN	Type	Section	Time	Days	Location	Instructor
52415	lecture-discussion	A	12:00 PM - 12:50 PM	T	room W115 Turner Hall	Kolb, F; Nelson, R

563 **Chromosomes** credit: 3 hours.

Includes cytogenetic analysis of eukaryotic organisms, the role of chromosomes in genome organization and evolution, and introduction to molecular cytogenetic laboratory techniques such as mitotic analysis, chromosome banding, flow cytogenetics, somatic cell genetics, chromosomal length polymorphisms, fluorescent microscopy and in situ hybridization. Prerequisite: CPSC 352 and MCB 450, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
31654	lecture	A	10:00 AM - 11:50 AM	TR	room W223 Turner Hall	Rayburn, A

565 **Perl & UNIX for Bioinformatics** credit: 2 hours.

This intensive course is an introduction to high-throughput bioinformatics and genome data analysis. An introduction to programming with Perl and Bioperl will be given, and students will learn to write scripts relevant to their own research goals. We will also cover the use of UNIX and Perl for automating and customizing bioinformatics tools. Prerequisite: Graduate status or consent of instructor. In addition, familiarity with DNA and protein sequence data, and basic Windows computing skills are required.

CRN	Type	Section	Time	Days	Location	Instructor
46730	laboratory	AB1	03:00 PM - 04:50 PM	W	room N120 Turner Hall	Hudson, M
Meets 15-Mar-10 - 05-May-10.						
46726	lecture-discussion	AE1	02:00 PM - 04:50 PM	M	room N120 Turner Hall	Hudson, M
Meets 15-Mar-10 - 05-May-10.						

566 **Plant Gene Regulation** credit: 4 hours.

Current topics and literature on the function and regulation of higher plant genes. Topics of emphasis: transposable elements, their effect on gene expression and variation, and uses in tagging and isolating genes; the developmental, tissue specific, or environmental regulations of plant genes; the structure, synthesis, subcellular targeting, and regulation of major cereal and legume seed proteins; the use of genetic engineering to explore the regulation of plant genes or to alter traits of agricultural importance. Same as HORT 566. Prerequisite: CPSC 352, MCB 350, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
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43483	lecture-discussion	A	11:00 AM - 11:50 AM	MWF	room N107 Turner Hall	Vodkin, L
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574 ***Insect Resistance Management*** credit: 2 hours.

Concepts and strategies for managing insect resistance to crop rotation, insecticides, biological control and host-plant resistance. Includes toxicology, population genetics, modeling, economics, and social contexts of insect resistance. Same as IB 574 and NRES 574. Prerequisite: CPSC 270 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
52528	lecture-discussion	A	02:00 PM - 03:50 PM	W		Onstad, D
Meets 19-Jan-10 - 12-Mar-10.						
	lecture-discussion	A	02:00 PM - 02:50 PM	MF		Onstad, D
Meets 19-Jan-10 - 12-Mar-10. 2 hours						

593 ***Adv Studies in Crop Sciences*** credit: 1 to 8 hours.

Directed studies of selected problems or topics relevant to Crop Sciences. Study may be in one of the following fields: 1) Plant Breeding and Genetics; 2) Plant Molecular Biology; 3) Plant Physiology; 4) Crop Production and Ecology; 5) Biometrics; 6) Plant Pathology; 7) Entomology; and 8) Weed Science. Prerequisite: Consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
10567	independent study		ARRANGED			
Instructor Approval Required						
53780	online	GK	06:00 PM - 09:15 PM	T		Kling, G
4 hours Adv Woody Landscape Plants Academic Outreach restrictions and assessments apply, see <a href="http://www.outreach.uiuc.edu">http://www.outreach.uiuc.edu</a> . Classes will be held from 6 to 9:15 PM on Tuesdays beginning January 19. There will be no class session on Tuesday March 23 due to UIUC spring break. Exams will be proctored at The Oakbrook Multi-University Center several times throughout the semester. Online synchronous Elluminate sessions (non face-to-face classes) are on 1/26, 2/2, 2/16, 2/23, 3/2, 3/9, 3/30, 4/13, and 4/20. There will be 4 Saturday labs from 10 AM to 4 PM at the Morton Arboretum in Lisle, IL on 1/30, 2/20, 3/6, and 4/2. Restricted to MS:Crop Sciences -UIUC, MS:Crop Sciences -UIUC, MS: Agricultural Educ -UIUC, MS:Nat Res Env Sci -UIUC, MS:Nat Res & Envrn Sci -UIUC, or NDEG:Grad Nondegree-CE-UIUC. Online Meets 19-Jan-10 - 04-May-10. AO Tuition 309, AO Tuition 277, and AO Fees 45.00 dollars.						

598 ***Seminar*** credit: 1 hours.

Current research in crops, genetic engineering, plant protection and other topics relevant to Crop Sciences. May be repeated to a maximum of 14 hours if topics vary. Students enrolling in discussion sections receive S/U grading. Students enrolling in lecture-discussion sections receive letter grading. Prerequisite: Graduate standing.

CRN	Type	Section	Time	Days	Location	Instructor
31632	discussion-recitation	C1	12:00 PM - 12:50 PM	R		Gray, M; Lee, D
31636	lecture-discussion	C2	12:00 PM - 12:50 PM	R		Gray, M; Lee, D
31638	discussion-recitation	G1	12:00 PM - 12:50 PM	W		Vodkin, L; Bernacchi, C
Section G1 approved for Satisfactory/Unsatisfactory Grades.						
31639	lecture-discussion	G2	12:00 PM - 12:50 PM	W		Vodkin, L; Bernacchi, C
Section G2 approved for Standard Letters Grades.						
31642	discussion-recitation	P1	12:00 PM - 12:50 PM	R		Gray, M; Lee, D
31645	lecture-discussion	P2	12:00 PM - 12:50 PM	R		Gray, M; Lee, D

599 **Thesis Research** credit: 0 to 16 hours.

Individual research under supervision of faculty. Required of all students working toward the Master of Sciences (thesis option) or Doctor of Philosophy in Crop Sciences. Approved for S/U grading only. May be repeated to a maximum of 16 hours if topics vary.

CRN	Type	Section	Time	Days	Location	Instructor
10569	independent study		ARRANGED			
Instructor Approval Required						
53768	independent study	DFW	ARRANGED			Warnock, D
53769	independent study	DJW	ARRANGED			Williams, D
53810	independent study	DPB	ARRANGED			Briskin, D
53764	independent study	JBM	ARRANGED			Masiunas, J
53766	independent study	JRS	ARRANGED			Stewart, J
53763	independent study	MMK	ARRANGED			Kushad, M

53765	independent study	RMS	ARRANGED			Skirvin, R
53767	independent study	TBV	ARRANGED			Voigt, T