

Course Schedule - Fall 2006

Crop Sciences

111 **Farming Systems** Credit: 2 hours.

General introduction to the equipment and practices commonly used on Midwest farms. Classes will consist of short lectures followed by demonstrations. All classes and demonstrations will be conducted at the University of Illinois Crop Sciences Research and Education Center. Includes field trips to local production and agribusiness facilities.

Enrollment is restricted to Freshmen only.

CRN	Type	Section	Time	Days	Location	Instructor
30067	lecture-discussion	A	10:00 AM - 11:50 AM	R	room W115 Turner Hall	Dunker, R
30067: Enrollment is restricted to Crop Science Freshmen only						

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
31643	laboratory	AB1	01:00 PM - 03:50 PM	W	room W13 Turner Hall	Stoller, P
31644	laboratory	AB2	01:00 PM - 03:50 PM	R	room W13 Turner Hall	Stoller, P
31645	lecture	AL1	10:00 AM - 10:50 AM	MWF	room W109 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
30071	lecture-discussion	A	06:00 PM - 08:50 PM	W	room W109 Turner Hall	Bohn, M
30071: Non-Western Cultures course.						

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			
10554: Instructor Approval Required						

226 Introduction to Weed Science Credit: 3 hours.

Fundamentals of weed biology, ecology, and management. Emphasis is placed on basic principles and specific management strategies that are relevant to both crop and non-crop ecosystems. Includes a laboratory/discussion. Same as HORT 226. Prerequisite: CPSC 112 or HORT 100 or IB 103.

CRN	Type	Section	Time	Days	Location	Instructor
33546	laboratory	AB1	12:00 PM - 02:50 PM	T	room W13 Turner Hall	Tranel, P
33548	laboratory	AB2	03:00 PM - 05:50 PM	T	room W13 Turner Hall	Tranel, P
33543	lecture	AL1	08:00 AM - 08:50 AM	TR	room W115 Turner Hall	Tranel, P

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
30074	laboratory	A	01:00 PM - 04:50 PM	R	room M5 Turner Hall	Hudson, M

270 Applied Entomology Credit: 3 hours.

Lectures, laboratory, and field trips cover the biology of insects and the recognition and management of insect pests of agricultural, forest, and urban ecosystems. Covers insect structure and physiology, classification, life histories, behavior, and pest management. Same as IB 220, and NRES 270.

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

CRN	Type	Section	Time	Days	Location	Instructor
33480	laboratory	AB1	10:00 AM - 11:50 AM	M	room W13 Turner Hall	Weinzierl, R
33480: Life Sciences course.						
33486	laboratory	AB2	10:00 AM - 11:50 AM	T	room W13 Turner Hall	Weinzierl, R
33486: Life Sciences course.						
45228	laboratory	AB3	02:00 PM - 03:50 PM	M	room W13 Turner Hall	Weinzierl, R
45228: Life Sciences course.						
33476	lecture	AL1	09:00 AM - 09:50 AM	MW	room W109 Turner Hall	Weinzierl, R
33476: Life Sciences course.						

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			
10555: 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			
10558: 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			
10560: Instructor Approval Required						

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
33510	laboratory	AB1	01:00 PM - 02:50 PM	T	room W115 Turner Hall	Diers, B; Beever, J
33514	laboratory	AB2	03:00 PM - 04:50 PM	T	room W109 Turner Hall	Diers, B; Beever, J
33518	laboratory	AB3	10:00 AM - 11:50 AM	T	room W115 Turner Hall	Diers, B; Beever, J
33507	lecture	AL1	02:00 PM - 02:50 PM	MWF	room W109 Turner Hall	Diers, B; Beever, J

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			
10562: Instructor Approval Required						

407 *Diseases of Field Crops* Credit: 3 hours.

Same as PLPA 407. See PLPA 407.

CRN	Type	Section	Time	Days	Location	Instructor
43811	laboratory-discussion	A	10:00 AM - 11:50 AM	TR	room M5 Turner Hall	Pataky, J

426 Weed Mgt in Agronomic Crops Credit: 3 hours.

Principles of weed ecology and biology, and their application to weed management. Herbicides and their use in corn, soybeans and other agronomic crops. Specialized topics include weed management in reduced tillage, herbicide tolerant crops and management of problem weeds. Prerequisite: CPSC 226 or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
30081	laboratory	AB1	08:00 AM - 09:50 AM	R	room W109 Turner Hall	Riechers, D
30084	lecture	AL1	08:00 AM - 09:50 AM	T	room W109 Turner Hall	Riechers, D

432 Genetic Toxicology Credit: 3 hours.

Introduces the field of genetic toxicology; includes the study of physical and chemical induced mutagenesis, survey of genetic indicator organisms and genetic assays, distribution of environmental mutagens and their biochemistry, analysis of case histories of environmental mutagens and risk assessment. Same as ENVS 432. Offered in alternate years. Prerequisite: CPSC 352; CHEM 104; MCB 350, or MCB 452 and MCB 453, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
39532	lecture	A	10:00 AM - 11:20 AM	TR	room 207 National Soybean Res Ctr	Plewa, M
39532: 3 hours						

433 Basic Toxicology Credit: 3 hours.

Same as ENVS 480, FSHN 480, and VB 549. See FSHN 480.

CRN	Type	Section	Time	Days	Location	Instructor
37667	lecture	C	01:30 PM - 02:20 PM	MWF	room 132 Bevier Hall	Jeffery, E

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
33573	lecture	AL1	08:00 AM - 09:20 AM	TR	room 213 Gregory Hall	Bollero, G

33572	laboratory-discussion	AY1	01:00 PM - 02:50 PM	T	room N120 Turner Hall	Bollero, G
34027	laboratory-discussion	AY2	05:00 PM - 06:50 PM	T	room N120 Turner Hall	Bollero, G
34045	laboratory-discussion	AY3	01:00 PM - 02:50 PM	W	room N120 Turner Hall	Bollero, G
34058	laboratory-discussion	AY4	03:00 PM - 04:50 PM	T	room N120 Turner Hall	Bollero, G
34080	laboratory-discussion	AY5	10:00 AM - 11:50 AM	T	room N120 Turner Hall	Bollero, G

448 **Biological Modeling** Credit: 3 or 4 hours.
Same as ANSC 449, GEOG 468, and IB 491. See GEOG 468.

CRN	Type	Section	Time	Days	Location	Instructor
37456	lecture-discussion	G1	10:00 AM - 12:20 PM	W	room 338 Davenport Hall	Hannon, B
37456: 4 hours						
37455	lecture-discussion	U1	10:00 AM - 12:20 PM	W	room 338 Davenport Hall	Hannon, B
37455: 3 hours						

452 **Genetics of Higher Organisms** Credit: 3 hours.

Selected contemporary topics in genetics are covered with examples primarily from plants, humans, and animals. Topics include nature of genes and genomes, mutations and their analysis, allelic diversity, use of recombinant DNA to enhance genetic analysis, structural and functional genomics, molecular marker mapping of quantitative trait loci, marker assisted selection, proteomics, bioinformatics, and transgenics. Prerequisite: CPSC 352, or MCB 106, or consent of instructor.

A few class sessions will meet in addition to regularly scheduled class hours, to be arranged.

CRN	Type	Section	Time	Days	Location	Instructor
30076	lecture-discussion	A	10:00 AM - 11:30 AM	TR	room W223 Turner Hall	RocheFord, T

465 **Ethics in Biotechnology** Credit: 3 hours.
Same as ANSC 465 and HORT 465. See HORT 465.

CRN	Type	Section	Time	Days	Location	Instructor
34284	lecture-discussion	E1	11:00 AM - 12:20 PM	TR	room N527 Turner Hall	Korban, S

34284: This class will meet in N527 Turner Hall.

466 Concepts and Tools of Genomics Credit: 3 hours.

An overview of genomics in the context of molecular biology including: basic principles in molecular biology, accessing biological databases; transcriptional, translational, and post-translational gene regulation; regulatory roles of non-protein coding RNA, signal transduction, genome projects and gene annotation, DNA microarray analysis, protein interaction maps, and integrative functional genomics. Prerequisite: CPSC 352 (Plant and Animal Genetics) or a similar course, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
46800	lecture	A	11:00 AM - 11:50 AM	MWF	room W115 Turner Hall	Lin, Y
46800: 3 hours						

473 Mgmt of Field Crop Insects Credit: 3 hours.

Ecological principles of insect populations in agroecosystems including: sampling insect populations, threshold development, bioeconomics and decision-making, population regulation, designing management strategies for field crop insect pests, and deployment of transgenic crops for management of insect pests. Case studies describing various pest management programs in field-crop settings will be provided. Prerequisite: CPSC 270, Introductory Entomology, or an equivalent course, or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
47123	lecture-discussion	MG	09:00 AM - 09:50 AM	MWF	room 115 David Kinley Hall	Gray, M

479 Insect Pest Management Credit: 4 hours.

Same as IB 482. See IB 482.

CRN	Type	Section	Time	Days	Location	Instructor
48184	lecture-discussion	CH	06:30 PM - 09:45 PM	W	room ARR 508 S Sixth	Steffey, K; Weinzierl, R; Nixon, P
48184: Interactive VideoMeets 23-Aug-06 - 06-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						
48184: Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu . No class held on November 22nd during Thanksgiving break. Classes will be held via interactive 2-way video.						
48315	lecture-discussion	MV	06:30 PM - 09:45 PM	W	room ARR 1XMTVN	Steffey, K; Weinzierl, R; Nixon, P
48315: Interactive VideoMeets 23-Aug-06 - 06-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						
48315: Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu . This class will meet in Room 142 at the Learning Resource Center on the main campus of Rend Lake College in Ina.						

48182	lecture-discussion	OB	06:30 PM - 09:45 PM	W	room ARR 1XUOPS	Steffey, K; Weinzierl, R; Nixon, P
48182: Interactive VideoMeets 23-Aug-06 - 06-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						
48182: Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu . No class held on November 22nd during Thanksgiving break. Classes will be held via interactive 2-way video.						
48185	lecture-discussion	SP	06:30 PM - 09:45 PM	W	room ARR 1XUIS	Steffey, K; Weinzierl, R; Nixon, P
48185: Interactive VideoMeets 23-Aug-06 - 06-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						
48185: Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu . No class held on November 22nd during Thanksgiving break. Classes will be held via interactive 2-way video. Class will meet in Room 141A at the Brookens Building at UIS.						

488 Soil Fertility and Fertilizers Credit: 3 hours.
Same as NRES 488. See NRES 488.

CRN	Type	Section	Time	Days	Location	Instructor
41081	lecture	L1	01:00 PM - 01:50 PM	MWF	room W115 Turner Hall	Mulvaney, R

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			
10564: Instructor Approval Required						
48559	online	HB	06:30 PM - 09:45 PM	M		Brown, H
48559: 1 hoursSoil & Water ConservationAcademic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu .OnlineMeets 20-Nov-06 - 11-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						

541 Regression Analysis Credit: 5 hours.

The application of regression methods to problems in agriculture and natural resources. Topics include simple linear, multiple linear, and nonlinear regression analysis and correlation analysis. Emphasis is placed on predictor variable selection, diagnostics and remedial measures and validation. Both quantitative and qualitative predictor variables are examined. The SAS system is used for all analyses. Same as ANSC 541. Prerequisite: CPSC 440 or equivalent.

CRN	Type	Section	Time	Days	Location	Instructor
46816	laboratory	AB1	03:00 PM - 04:50 PM	R	room N120 Turner Hall	Bullock, D
46817	laboratory	AB2	01:00 PM - 02:50 PM	R		Bullock, D
46809	lecture	AL	03:00 PM - 04:50 PM	MW	room W109 Turner Hall	Bullock, D

567 *Bioinformatics & Systems Biol* Credit: 2 hours.

Bioinformatics and Systems Biology are emerging disciplines that address the need to manage and interpret the massive quantities of data generated by genomic research. In systems biology, advances in genomics, bioinformatics, and structural biology are used to generate global and unified views that integrate fragmentary knowledge of biological systems, their components and their interrelationships. This course is intended for students interested in the crossroads of biology and computational science and includes both lectures and hands-on experience. Students may not receive credit for this course and CPSC 499 Bioinformatics and System Biology. Prerequisite: Graduate level status or consent of instructor.

CRN	Type	Section	Time	Days	Location	Instructor
46799	laboratory-discussion	A	08:30 AM - 09:50 AM	TR	room N120 Turner Hall	Caetano-Anolles, G
46799: Meets 16-Oct-06 - 08-Dec-06.						
46799: 2 hours						

590 *Professionalism and Ethics* Credit: 2 hours.

Topics related to professional activities of agricultural and natural resource scientists, including scientific writing and publishing, grantsmanship and money management, oral presentation skills, finding and keeping a job, and mentoring and teaching are discussed. Ethical dimensions of these areas are explored through case studies. Same as NRES 590.

CRN	Type	Section	Time	Days	Location	Instructor
33566	discussion-recitation	A	03:00 PM - 04:50 PM	T	room W121 Turner Hall	D'Arcy, C; Wander, M; Eastburn, D

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. Instructor Approval Required.

CRN	Type	Section	Time	Days	Location	Instructor
10567	independent study		ARRANGED			

10567: Instructor Approval Required						
48344	independent study	CH	ARRANGED			Brown, H
48344: 4 hoursIndependent StudyAcademic Outreach Aprvl ReqdAcademic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu .Meets 27-Aug-06 - 05-Dec-06.XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 dollars.						
48387	discussion-recitation	SJC	03:00 PM - 03:50 PM	M		Hartman, G; Clough, S
48387: 1 hoursAdv Disc. in Soybean PathologyInstructor Approval Required						
41580	lecture-discussion	XM	ARRANGED			Steffey, K
41580: 4 hoursAcademic Outreach Aprvl ReqdAcademic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu XM Tuition 261, XM Tuition 237, XM Fees 41, and XM Fees 41.00 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
37023	discussion-recitation	C1	12:00 PM - 12:50 PM	R	room W109 Turner Hall	Below, F; Chee-Sanford, J
37021	lecture-discussion	C2	12:00 PM - 12:50 PM	R	room W109 Turner Hall	Below, F; Chee-Sanford, J
33589	discussion-recitation	GE1	12:00 PM - 12:50 PM	W	room W109 Turner Hall	Rocheford, T; Jacobs, T
33591	lecture-discussion	GE2	12:00 PM - 12:50 PM	W	room W109 Turner Hall	Rocheford, T; Jacobs, T
33592	discussion-recitation	PP1	12:00 PM - 12:50 PM	R	room W109 Turner Hall	Below, F; Chee-Sanford, J
33593	lecture-discussion	PP2	12:00 PM - 12:50 PM	R	room W109 Turner Hall	Below, F; Chee-Sanford, J

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			

10569: Instructor Approval Required

41728	independent study	DRO	ARRANGED			Ort, D
42525	independent study	GCA	ARRANGED			Caetano-Anolles, G