UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

EP.11.27

Office of the Provost and Vice Chancellor for Academic Affairs



Swanlund Administration Building 601 East John Street Champaign, IL 61820

January 6, 2011

Abbas Aminmansour, Chair Senate Committee on Educational Policy Office of the Senate 228 English Building, MC-461

Dear Professor Aminmansour:

Enclosed is a copy of a proposal from the College of ACES to revise the B.S. in Horticulture.

This proposal has been approved by the ACES Courses and Curricula Committee. It now requires Senate review.

Sincerely,

Kust flimts

Kristi A. Kuntz Assistant Provost

KAK/njh

Enclosures

c: G. Bollero R. Hauser F. Kolb F. Simmons

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

College of Agricultural, Consumer and Environmental Sciences

Academic Programs 128 Mumford Hall, MC-710 1301 West Gregory Drive Urbana, IL 61801



December 17, 2010

Kristi Kuntz, Assistant Provost Office of the Provost, Second Floor Swanlund Administration Building Campus MC-304

Dear Kristi:

Please find enclosed two proposals from the Department of Crop Sciences:

- Revise the Major in Horticulture
- Establish a Minor in Horticulture

Both proposals have been reviewed and approved by the ACES Courses & Curricula Committee and were unanimously endorsed by the College of ACES Faculty Meeting on **Friday**, **December 10**, **2010**.

Thank you for your consideration of these proposals. Please feel free to contact me should you have any questions.

Sincerely, ell

f. William Simmons Assistant Dean, College of ACES

FWS/rhc

cc: G. A. Bollero R. J. Hauser F. L. Kolb CPSC C&C File



Senate Educational Policy Committee Proposal Check Sheet

PROPOSAL TITLE (Same as on proposal): <u>Revision of the Horticulture concentrations leading</u> to the Bachelor of Science in the Department of Crop Sciences in the College of Agricultural, Consumer and Environmental Sciences

PROPOSAL TYPE (Please select all that apply below):

- 1. This proposal is for a graduate program or degree
 - Yes No
- 2. Degree proposal (e.g. B.S.A.E., M.S.C.E.)

New degree — please name the new degree: _____

Revision of an existing degree — please name the existing degree to be revised: <u>Bachelor of Science in Horticulture</u>

- 3. Major proposal (disciplinary focus, e.g., Mathematics)
 - New major please name the new major: _____
 - Revision of an existing major please name the existing major to be revised: <u>Horticulture</u>
- 4. **Concentration** proposal (e.g. Financial Planning)

New concentration — please name the new concentration:

\ge	Revision of an existing concentration —	please name the existing concentration to be
	revised: Horticultural Science, Production	

5. **Minor** proposal (e.g. Cinema Studies)

New minor — please name the new minor:

Revision of an existing minor — please name the existing minor to be revised:

6.	Proposal for rena	ming an existing	g degree, major, concenti	ration, or minor
	degree	🗌 major	concentration	minor
	Please provide th	e current name:		
	Please provide the	ne proposed new	name:	
7.	Proposal for term	inating an existi	ng degree, major, concer	ntration, or minor
	Please name the concentration wi	÷ •	major, concentration, or I <u>ture major</u>	minor: <u>Urban Forestry</u>
8.	Proposal for a mu institution	llti-institutional	degree between Illinois (UIUC) and a foreign
	Please name the	existing Illinois	degree or program:	
	Please name the	partnering instit	ution:	
B.	Proposal for renami program)	ng existing aca	demic units (college, scl	nool, department, or
	Please provide the un	nit's current nam	e:	
	Please provide the un	nit's proposed ne	ew name:	
C.	Proposal for reorgan	nizing existing u	units (colleges, schools,	departments, or programs)
			d approved unit (e.g. cha urrent unit name includir	
	Transfer an existi	ng unit		
	Please provide th	e current unit's	name and home:	
	Please provide th	e new home for	the unit:	
	Merge two or more	re existing units	(e.g., merge department	A with department B)
	Please provide th	e name and coll	ege of unit one to be me	rged:
	Please provide th	e name and coll	ege of unit two to be me	rged:
	Terminate an exis	sting unit — plea	ase provide the current u	nit's name and status:
D.	Other educational p	olicy proposals	(e.g., academic calendar	, grading policies, etc.)
	Please indicate the na	ature of the prop	osal:	



Proposal to the Senate Educational Policy Committee

- **PROPOSAL TITLE:** Revision of the Horticulture concentrations leading to the Bachelor of Science in the Department of Crop Sciences in the College of Agricultural, Consumer and Environmental Sciences
- SPONSOR: Frederic L. Kolb, Cavanah Professor of Plant Breeding and Genetics, Crop Sciences Teaching Coordinator, 333-9485, <u>f-kolb@illinois.edu</u>
- COLLEGE CONTACT: F. William Simmons, Assistant Dean, Academic Programs, 333-3380, <u>fsimmons@illinois.edu</u>
- **BRIEF DESCRIPTION:** The Department of Crop Sciences proposes the revision of the three concentrations in the Horticulture major by eliminating the Urban Forestry Concentration and revising the Horticultural Science and Production and Management Concentrations into two new concentrations to be named Sustainable Landscapes Concentration and Specialty Crops Concentration. There are currently no students in the Urban Forestry Concentration, and the concentration has had very low enrollment for a number of years. The major revisions in the two remaining concentrations, in addition to the name changes, are in the courses required within the horticulture rubric and the reduction in number of hours required for graduation from 130 hours to 126 hours. The proposed Programs of Study for the two new concentrations are attached along with the current checksheets for the Horticultural Sciences Concentration and the Production and Management Concentration with changes to the concentrations indicated using "track changes".
- **JUSTIFICATION:** The Urban Forestry concentration is being discontinued because there has been very low enrollment in this concentration. Two students graduated from this concentration in spring 2007, and there have not been any students enrolled in the concentration since that time. The names of the two remaining concentrations are being changed to more accurately describe the curricular content of each concentration, reflect evolving societal themes, and increase the visibility of the curriculum to prospective students. The changes in courses required in the new Specialty Crops Concentration are designed to provide more flexibility and allow students to pursue a set of classes providing a strong background in a specific topic area within the broader discipline of horticulture. The more substantial revisions changing the Horticultural Science Concentration to the new Sustainable Landscapes Concentration are designed to provide an updated and restructured curriculum focused on the sustainable use of plants in landscapes, an area that is in demand in the marketplace. The changes in the names of the concentrations and updates in requirements will greatly enhance our horticulture program

and position these concentrations to address important emerging societal themes such as local foods, urban agriculture, sustainable landscapes, and green roofs.

BUDGETARY AND STAFF IMPLICATIONS:

Additional staff and dollars needed

The proposed revisions do not create a need for additional resources; however, in order for the department to maintain this program into the future there is a need to commit to current staffing levels. Funds will be required to continue to pay several Academic Professionals who are involved in providing instruction in several courses (especially HORT 316 and HORT 355). As senior faculty members who are heavily involved in teaching classes in this curriculum retire over the next few years, strategic decisions will need to be made about hiring new faculty members or Academic Professionals to assume these teaching responsibilities. This is a concern because the recent budget situation has precluded refilling any faculty positions in this area during the last several years when faculty members have retired or pursued other opportunities.

a. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.)

Our intent is that the revision of these concentrations will enhance and update these programs and that enrollment in these concentrations will increase. Currently, a number of the horticulture classes have small enrollments so additional students populating these classes will be beneficial. There is capacity available, and the faculty members in the horticulture area are willing to teach classes with larger enrollments.

b. Effect on course enrollment in other units and explanations of discussions with representatives of those departments

While we hope to attract more students to this curriculum a realistic increase is probably 25 % (from the current 49 students to about 60-65 students). It is not anticipated that an additional 4-5 students per year in this program will impact course enrollments in classes outside of the Horticulture major.

c. Impact on the University Library

No impact is expected.

d. Impact on computer use, laboratory use, equipment, etc.

No impact is expected on computer labs. Some labs within Horticulture may have larger enrollments, but as indicated there is capacity available at this time. If necessary, additional lab sections will be added to courses as required to meet demand.

DESIRED EFFECTIVE DATE: We would like to implement these revisions as soon as possible, but we understand that they must be approved at a number of levels. Ideally,

we would like to have the effective date be Fall semester of 2011. Realistically, we recognize that it may take until Fall semester of 2012 to complete all of the necessary approvals.

STATEMENT FOR PROGRAMS OF STUDY CATALOG:

The major in Horticulture is designed for students who want a basic knowledge of horticulture. Emphasis is placed on the basic plant sciences to give a general background for the specialized topics in horticulture. Opportunities open to graduates of this major include managing the production of horticultural crops in greenhouses, nurseries, and farms; managing residential landscape design and construction firms; park and golf course management; supervising landscape maintenance and arboriculture firms; flower shop management and floral design; plant breeders; positions as sales representatives and horticulturists with seed and plant suppliers, and horticultural supply firms; employment with state or federal government agencies or institutions as teachers, researchers, horticultural advisors, crop inspectors, and consultants; and horticultural mass media specialists. The major also prepares students for graduate study in horticulture or plant science. Students can select from concentrations in sustainable landscapes and specialty crops. A total of 126 hours are required for graduation.

CLEARANCES:

Signatures:

30 Unit Representative:

College Representative:

12-15-10

Date:

12-13-10 Date:

Graduate College Representative:

Provost Representative:

Educational Policy Committee Representative:

Date:

Date:

Date:

Major in Horticulture

For the Degree of Bachelor of Science with a Major in Horticulture

The major in Horticulture is designed for students who want a basic knowledge of horticulture. Emphasis is placed on the basic plant sciences to give a general background for the specialized topics in horticulture. Opportunities open to graduates of this major include managing the production of horticultural crops in greenhouses, nurseries, and farms; managing residential landscape design and construction firms; park and golf course management; supervising landscape maintenance and arboriculture firms; flower shop management and floral design; plant breeders; positions as sales representatives and horticulturists with seed and plant suppliers, and horticultural supply firms; employment with state or federal government agencies or institutions as teachers, researchers, horticultural advisors, crop inspectors, and consultants; and horticultural mass media specialists. The major also prepares students for graduate study in horticulture or plant science. Students can select from concentrations in sustainable landscapes and specialty crops. A total of 126 hours are required for graduation.

<u>General Education Required</u> <u>Specialty Crops Concentration</u> <u>Sustainable Landscapes Concentration</u>

General Education Required

Hours	Composition I and Speech
4	RHET 105 - Principles of Composition or equivalent (see college
****	Composition I requirement)
3	CMN 101 - Public Speaking

Hours	Advanced Composition
3	See campus approved list.

He	urs	Cultural Studies
	6	Select one course from Western culture and one from non-
		Western/U.S. minority culture from campus approved list.

Hours Foreign Language: Coursework at or above the third level is required for graduation.

Hours Quantitative Reasoning I

3-5	MATH 124 - Finite Mathematics, or MATH 220 - Calculus I, or MATH
	234 - Calculus for Business I

Hours Quantitative Reasoning II

3 CPSC 241 - Intro to Applied Statistics

Hours	Natural Sciences and Technology
4	CHEM 102 - General Chemistry I and CHEM 103 - General Chemistry Lab I
4	CHEM 104 - General Chemistry II and CHEM 105 - General Chemistry Lab II
4	IB 103 - Introduction to Plant Biology

Hours Humanities and the Arts 6 Select from campus approved list.

Hours	Social and Behavioral Sciences
	ACE 100 - Agr Cons and Resource Econ, OR ECON 102 - Microeconomic Principles
3	Soc. & Behavioral Sci. course selected from campus approved list. Preferred: NRES 287 – Environment and Society

Hours ACES required 2 ACES 101 - Contemporary Issues in ACES

Hours	Plant Sciences required
3	CPSC 226 - Introduction to Weed Science
3	CPSC 270 – Applied Entomology
1	CPSC 498 – Undergraduate Seminar
4	NRES 201 – Introductory Soils
3	PLPA 204 – Introductory Plant Pathology

Hours	Horticulture required
3	HORT 100 – Introduction to Horticulture
3	HORT 240 – Plant Propagation
3	HORT 293 – Professional Internship, OR HORT 294 – Resident
	Internship
4	HORT 341 – Greenhouse Mgmt and Production
3-4	One physiology course selected from: HORT 421 – Horticultural Physiology; OR HORT 466 – Growth and Dev. Hort. Crops; OR

	IB 420 – Plant Physiology
Hours	Business required
3	One course selected from: ACCY 200 – Fundamentals of Accounting; OR ACE 231 – Food and Agribusiness Mgt; OR BADM 310 – Mgmt and Organizational Behavior; OR ACE 222 – Agricultural Marketing; OR BTW 250 Principles of Business Communication

Specialty Crops Concentration

This concentration prepares students for careers in horticultural production, marketing, management, and use of horticultural crops, including flowers, food crops, ornamentals and turfgrass; for careers in teaching and/or research in horticulture; or for careers in businesses providing services related to horticultural industries.

Hours	Specialty Crops Concentration Required
4	CPSC 352 - Plant and Animal Genetics
2-4	<u>One</u> course selected from: HORT 363 – Postharvest Handling Hort Crop; OR HORT 442 Plant Nutrition; OR HORT 482 – Plant Tissue Culture; OR NRES 488 – Soil Fertility and Fertilizers
4	One course selected from: CHEM 232 – Elementary Organic Chemistry; OR CPSC 382 – Organic Chemistry of Biological Processes

Hours	Specialty Crop Concentration Electives
15	Choose a minimum of 15 hours from the following list:
	HORT 205 – Local Food Networks
	HORT 236 – Introduction to Turfgrass Management
	HORT 246 – Floral Design I
	HORT 346 – Floristry and Floral Design II
	HORT 361 - Small Fruits and Viticulture
	HORT 362 - Tree Fruit Production
	HORT 363 – Postharvest Handling Hort Crop
	HORT 436 - Advanced Turfgrass Management
	HORT 441 – Floral & Nursery Crops Prductn
	HORT 447 – Horticultural Plant Breeding
	HORT 453 – Principles of Plant Breeding
	HORT 458 – Tree Mgmt in the Urban Forest
	HORT 464 – International Hort Products
	HORT 489 – Controlling Turfgrass Pests

Sustainable Landscapes Concentration

Students in the Sustainable Landscapes concentration study horticulture with a strong emphasis on the physical and biological sciences. Students will develop basic landscape design and plant identification skills, as well as an understanding of approaches to the design, installation and management of urban and suburban landscapes in a sustainable manner. Courses focus on plant materials, environmental systems, sustainable design, and landscape construction and maintenance.

Hours	Sustainable Landscapes Concentration required
3	HORT 255 – Multifunctional Landscapes
4	HORT 301 - Woody Landscape Plants I
3	HORT 355 – Landscape Graphics & Design
3	HORT 450 - Landscape Contracting
4-5	HORT 456 – Sustainable Landscape Design
4	HORT 458 – Landscape Maintenance
9-12	Select three courses from: HORT 215 – Grasses in Managed Settings; HORT 236 – Intro to Turfgrass Management; HORT 302 – Woody Landscape Plants II; HORT 316 –Native Plants for Landscapes; HORT 343 - Herbaceous Plants I; HORT 344 - Herbaceous Plants II
3-4	Select <u>one</u> environmental systems course from: CPSC 336 – Tomorrow's Environment; CPSC 431 – Plants and Global Change; CPSC 437 - Principles of Agroecology; NRES 219 - Principles of Ecosystem Management; NRES 420 - Restoration Ecology: NRES 465 – Landscape Ecology

For the Degree of Bachelor of Science Horticulture Major Specialty Crops Concentration Effective:

COURSES	HOURS	COURSES	HOURS
GENERAL EDUCATION REQUIRED		ACES REQUIRED	
Composition I and Speech		ACES 101	2
RHET 105	4		
		PRODUCTION AND MANAGEMENT	
SPCM 101	3	CONCENTRATION REQUIRED	
(CMN 101 effective SP09)		ACCY 200 or 201; ACE 231; or BADM 310	3
		(Add ACE 222 and BTW 250 to list)	
Advanced Composition ¹	3-4	,	
Advanced composition		CHEM 232 or CPSC 382	3
Cultural Studies ¹			
One Western culture		CPSC 270 or NRES 280	3
and		CPSC 352	4
One non-Western/U.S. minority culture			
one non-western/o.o. minority culture		HORT 100	3
Foreign Language ²		HORT 240	4
Foleigh Language		HORT 301	3
Overtitative Descening I		HORT 341	3
Quantitative Reasoning I	3-5	CPSC 498	1
MATH 124, 220, 221, or 234	3-5	UPSU 496	
Quantitative Reasoning II		NRES 201	4
Statistics (specify CPSC 241)	3-4		
Statistics (specify of oo 2+1)	0.4	PLPA 204	3
Natural Sciences and Technology			J J
CHEM 102 and 103		One course selected from:	
CHEM 102 and 103 CHEM 104 and 105	3, 1	HORT 421, 466; IB 420	3-4
		One course selected from:	
	3, 1		3-4
IB 103	4	HORT 363, 442, 482, 488	5-4
	4	(Choose from List)	
			15
Humanities and the Arts ¹		OPEN ELECTIVES ³	
numanities and the Arts	6	Total Hours	
	0		
	3		
Social and Behavioral Sciences			
ECON 102 (Add ACE 100 to list)	3-4		
Social and Behavioral Sciences courses ^{1,}			
			23-29
			126
Minimum of 15 hours of major and concentration course			
Total ACES prescribed and elective courses must equa			
Students must be enrolled in the College of ACES/UIU	, for at least 60	nours.	

Work with your academic advisor. For completing GenEd requirements, consult with your academic advisor and refer to the most current GenEd approved list available at http://courses.illinois.edu/cis/gened/.

²Course work at or above the third level is required for graduation.

3Students should consider taking advantage of approved internship and/or study abroad credit for fulfilling open elective hours or other curriculum requirements.

For the Degree of Bachelor of Science Horticulture Major Sustainable Landscapes Concentration Effective:

COURSES	HOURS	COURSES	HOURS
			2
GENERAL EDUCATION REQUIRED		ACES REQUIRED	3-4
Composition I and Speech		ACES 101	
RHET 105	4	SUSTAINABLE LANDSCAPES	3
		CONCENTRATION REQUIRED	13
SPCM 101	3		3 343
(CMN 101 effective SP09)		ACCY 200 or 201; ACE 222 or 231; or BADM	3
		310: or BTW 250	4
Advanced Composition ¹	3-4		3
•		CPSC 270 CPSC 498	3
Cultural Studies ¹		HORT 100	4-5
One Western culture		HORT 240	4
and		HORT 293 or 294	
One non-Western/U.S. minority culture		HORT 341	9-12
One non-western/0.5. minority culture			
Foreign Language ²		NRES 201	
Foreign Language		PLPA 204	
		HORT 255	3
Quantitative Reasoning I	0.5		5
MATH 124, MATH 220, 221, or 234	3-5	HORT 301	
		HORT 355	
Quantitative Reasoning II	_	HORT 450	3-4
Statistics (Specify CPSC 241)	3	HORT 456	
		HORT 458	
Natural Sciences and Technology			11-21
CHEM 102 and 103		Three courses selected from:	126
CHEM 104 and 105	3, 1	HORT 215, HORT 236, HORT 302, HORT 316,	
	3, 1	HORT 343, HORT 344	
IB 103			
	4	One course selected from:	
		CPSC 336, CSPC 431, CPSC 437, NRES 219,	
		NRES 420, NRES 465	
Humanities and the Arts ¹			
	6	One course selected from:	
		HORT 421, 466; IB 420	
Social and Behavioral Sciences	1		
		OPEN ELECTIVES ³	
ECON 102 (add ACE 100 to list)	2	Total Hours	
o the doubt stand of the stand of the	3		
Social and Behavioral Sciences courses ^{1,}			
Minimum of 15 hours of major and concentration course	3		

Minimum of 15 hours of major and concentration courses must be completed of Students must be enrolled in the College of ACES/UIUC for at least 60 hours.

Work with your academic advisor. For completing GenEd requirements, consult with your academic advisor and refer to the most current GenEd approved list available at http://courses.illinois.edu/cis/gened/ ²Course work at or above the third level is required for graduation.

3Students should consider taking advantage of approved internship and/or study abroad credit for fulfilling open elective hours or other curriculum requirements.

Chappell, Rob

From:	Kolb, Fred
Sent:	Wednesday, December 15, 2010 09:27
To:	Chappell, Rob; Simmons, Bill
Subject:	FW: ACE classes in revised Horticulture curriculum

Rob,

Here are the messages from ACE.

Fred

Frederic L. Kolb Cavanah Professor of Plant Breeding and Genetics Crop Sciences Teaching Coordinator Department of Crop Sciences University of Illinois 1102 S. Goodwin Ave. Urbana, IL 61801

Ph (217) 333-9485 f-kolb@illinois.edu

From: Braden, John
Sent: Tuesday, December 07, 2010 5:15 PM
To: Ellinger, Paul; Bollero, Germán; Simmons, Bill; Kolb, Fred
Subject: RE: ACE classes in revised Horticulture curriculum

Fred, Paul, et al.

I have heard from most members of C&C and faculty members teaching related courses. All of them support the revisions proposed by Crop Sci.

Sincerely,

John

John B. Braden, Professor Department of Agricultural & Consumer Economics University of Illinois 1301 W. Gregory Drive, Rm. 304 Urbana, IL 61801 jbb@illinois.edu; p +1 217 333 5501; f +1 217 333 2312

From: Ellinger, Paul
Sent: Monday, December 06, 2010 11:29 AM
To: Bollero, Germán; Simmons, Bill; Kolb, Fred
Cc: Braden, John
Subject: FW: ACE classes in revised Horticulture curriculum

Fred, I don't not see a problem with this. As a matter of procedure, I will pass this to John Braden to get confirmation from ACE Department C&C. Paul

Paul N. Ellinger, PhD Professor and Head, Department of ACE University of Illinois Phone 217,333 5503 Fax 217 333-2312 School School Color http://www.ace.uiuc.edu

From: Kolb, Fred
Sent: Tuesday, November 30, 2010 6:02 PM
To: Ellinger, Paul
Cc: Bollero, Germán; Simmons, Bill
Subject: ACE classes in revised Horticulture curriculum

Dear Dr. Ellinger,

The Department of Crop Sciences is in the process of revising our undergraduate Horticulture concentrations. Several ACE classes are listed in the new concentrations that did not appear in the current concentrations. ACE 100 has been added as an alternative to ECON 102, and ACE 222 and 231 have been added in a list of classes that can fulfill a requirement. Currently there are about 48 students in the Horticulture program, and we hope to increase enrollment by 20-30 % over time so we anticipate that this might add 10 -15 students per year to ACE 100 and possibly 5 -8 students per year to ACE 222 and ACE 231. If the capacity is available in these classes and this is acceptable to the ACE Department could you please send me an e-mail stating that these changes are acceptable. Also, please copy your reply to Germán and Bill Simmons.

For your information, I've attached the proposal for the revision of the Horticulture concentrations and two checksheet files showing the changes using "track changes".

Thank you for your help.

Fred Kolb

Frederic L. Kolb Cavanah Professor of Plant Breeding and Genetics Crop Sciences Teaching Coordinator Department of Crop Sciences University of Illinois 1102 S. Goodwin Ave. Urbana, IL 61801

Ph (217) 333-9485 f-kolb@illinois.edu