Proposal to Revise the Agroecology Concentration in the Department of Crop Sciences

Sponsor: Department of Crop Sciences
College of Agricultural, Consumer, and Environmental Sciences

Contact: Robert G. Hoefft, Head
Department of Crop Sciences
AW-101 Turner Hall, MC-046
333-9480
rhoufet@uiuc.edu

Frederic L. Kolb
Department of Crop Sciences
Teaching Coordinator
AE-120 Turner Hall, MC-046
333-9485, f-kolb@uiuc.edu

History of the Concentration
The Agroecology concentration was one of six concentrations created or revised in the mid-1990s, when the Departments of Agronomy and Plant Pathology merged to become the Department of Crop Sciences.

Proposed Changes and Brief Justifications
The Department of Crop Sciences requests approval of the following proposed changes in our Agroecology concentration:

1. **Change**: Add a course to make the requirement for one course outside of Crop Sciences but within ACES nearly uniform across all six Crop Sciences concentrations (ANSC 100, HORT 100, FSHN 101, NRES 102, or TSM 100). One exception retained is to include NRES 201 in this list for the Biological Sciences concentration since NRES 201 is not required separately in that concentration.

   **Justification**: This change is to make this requirement similar across the concentrations in the department. The requirement is currently inconsistent and confusing.

2. **Change**: Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   **Justification**: CPSC 241 is a statistics course that is taught with examples from crop sciences, and is therefore particularly applicable to our majors.

3. **Change**: Move CPCS 270 (Applied Entomology) and PLPA 204 (Introductory Plant Pathology) out of a longer list and make them requirements.

   **Justification**: Introductory classes in entomology and plant pathology are important background classes for students in this concentration, therefore these two classes should be required.

4. **Change**: Add IB 150 and MCB 150 to the requirement sheet.
Justification: IB 150 and MCB 150 are prerequisites for IB 203. This does not increase the requirements; it only makes these prerequisites visible whereas previously they were hidden.

5. Change: Reorganize the list of courses for students to choose from to require one course from three different groupings and add some courses to provide flexibility (See requirement sheet).

Justification: Previously students could choose three classes from a long list of possibilities. We are now requiring students to select one class from three different groups of classes. Since classes within each group are similar this gives the student a broader background.

6. Change: Add CPSC 473 (Management of Field Crop Insects) to the list of courses from which 12 hours are selected

Justification: CPSC 473 provides an upper level course in entomology for students to select if they so choose.

7. Change: Slightly modify the wording of the description of the concentration.

Justification: The examples of careers this concentration can lead to were changed slightly to provide better information to prospective students.

Budgetary and Staff Implications
None. Classes CPSC 241, CPSC 270, PLPA 204 and CPSC 473 have sufficient capacity to handle any additional students from this concentration.

Clearances
Department

Robert G. Hoeft,
Head, Department of Crop Sciences

Date

College of ACES

F. William Simmons,
Assistant Dean, Academic Programs

Date

Senate Approval

Date
Proposed Changes and Brief Justification
The Department of Crop Sciences requests approval of the following proposed changes in our Biological Sciences concentration:

1. **Change**: Make the requirement for one course outside of Crop Sciences but within ACES nearly uniform across all six concentrations (ANSC 100, HORT 100, FSHN 101, NRES 102, or TSM 100). One exception retained is to include NRES 201 (Introductory Soils) in this list for the Biological Sciences concentration since NRES 201 is not a specific requirement in this concentration.

   **Justification**: This change is to make this requirement similar across the concentrations in the department. The requirement is currently inconsistent and confusing.

2. **Change**: Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   **Justification**: CPSC 241 is a statistics course that is taught with examples from crop sciences, and is therefore particularly applicable to our majors.

3. **Change**: Add IB 150 and MCB 150 as requirements.

   **Justification**: IB 150 and MCB 150 are prerequisites for several required advanced level IB classes.

4. **Change**: Move CPSC 261 and 265 out of a longer list and make the choice of one of these a requirement.
Justification: We believe all students in this concentration should have an introductory class in the biotechnology area.

5. Change: Reduce Natural Sciences Electives from 10-12 to 6-9 hours. Increase the required 400 level Crop Sciences courses from 2 to 3 and add courses to increase flexibility.

Justification: This requirement (Natural Sciences Electives) has been interpreted to mean classes that come from the Natural Sciences Gen. Ed. List. We believe it is more important for our student to take a class in biotechnology and more upper level classes rather than so many hours of lower level natural sciences classes. This fits in with the recent change in campus requirements for at least 21 hours of 300 and 400 level classes.

6. Change: Remove MCB 400 from a group of courses students could choose from.

Justification: MCB 400 has many prerequisites, and students did not take it.

Budgetary and Staff Implications
CPSC 241 and CPSC 261 have sufficient capacity to handle any additional students from this concentration. We may need to add sections of CPSC 265 or limit the number of non-Crop Sciences students in CPSC 265. Sections will be added if the demand dictates adding them.

Clearances

Department

Robert G. Hoeft,
Head, Department of Crop Sciences

Date

College of ACES

F. William Simmons,
Assistant Dean, Academic Programs

Date

Senate Approval

Date
Proposal to Revise the Crop Agribusiness Concentration in the Department of Crop Sciences

Sponsor: Department of Crop Sciences
College of Agricultural, Consumer, and Environmental Sciences

Contact: Robert G. Hoeft, Head
Department of Crop Sciences
AW-101 Turner Hall, MC-046
333-9480
rhoeft@uiuc.edu

Frederic L. Kolb
Department of Crop Sciences
Teaching Coordinator
AE-120 Turner Hall, MC-046
333-9485, f-kolb@uiuc.edu

History of the Concentration
The Crop Agribusiness concentration was one of six concentrations created or revised in the mid-1990s, when the Departments of Agronomy and Plant Pathology merged to become the Department of Crop Sciences. The concentration in Crop Agribusiness is designed for students wanting to combine agronomic production and business management. This concentration prepares students for careers in production and marketing, cropping systems management, and a broad range of multi-functional agricultural enterprises, or for entrance into graduate school.

Proposed Changes and Brief Justification
The Department of Crop Sciences requests approval of the following proposed changes in our Crop Agribusiness concentration:

1. **Change**: Make the requirement for one course outside of Crop Sciences but within ACES nearly uniform across all six concentrations (ANSC 100, HORT 100, FSHN 101, NRES 102, or TSM 100). One exception retained is to include NRES 201 in this list for the Biological Sciences concentration since NRES 201 is not required in that concentration.

   **Justification**: This change is to make this requirement similar across the concentrations in the department. The requirement is currently inconsistent and confusing.

2. **Change**: Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   **Justification**: CPSC 241 is a statistics course that is taught with examples from crop sciences, and is therefore particularly applicable to our majors.

3. **Change**: Add CPSC 473 (Management of Field Crop Insects) to the list of courses from which 12 hours are selected.

   **Justification**: CPSC 473 provides an upper level course in entomology for students to select if they so choose.

4. **Change**: Increase the number of Crop Sciences required 300 and 400 level courses from 9 to 12 hours.
**Justification:** We believe requiring one additional 300 or 400 level Crop Sciences course will enhance the preparation of our students. This change fits in with the recent change in campus requirements for at least 21 hours of 300 and 400 level classes.

6. **Change:** Remove FIN 221 as a class fulfilling a requirement.

**Justification:** ACE 340 is used by all students to meet this requirement because FIN 221 has a cascade of prerequisites. The Finance Department has not been notified that FIN 221 has been removed. Students in this concentration did not take FIN 221 in the past because of the prerequisites required.

**Budgetary and Staff Implications**
None. CPSC 241 and CPSC 473 have sufficient capacity to handle any additional students from this concentration.

**Clearances**

**Department**

Robert G. Hoeft,  
Head, Department of Crop Sciences  

Date ______

**College of ACES**

F. William Simmons,  
Assistant Dean, Academic Programs  

Date ______

**Senate Approval**

Date ______
Proposal to Revise the Crops Concentration in the Department of Crop Sciences

Sponsor: Department of Crop Sciences
          College of Agricultural, Consumer, and Environmental Sciences

Contact:    Robert G. Hoefl, Head
            Department of Crop Sciences
            AW-101 Turner Hall, MC-046
            333-9480
            rhoefl@uiuc.edu

Frederic L. Kolb
Department of Crop Sciences
Teaching Coordinator
AE-120 Turner Hall, MC-046
333-9485, f-kolb@uiuc.edu

History of the Concentration
The Crops concentration was one of six concentrations created or revised in the mid-1990s, when the Departments of Agronomy and Plant Pathology merged to become the Department of Crop Sciences. This concentration prepares students for careers in crop production and marketing, cropping systems management, plant breeding, and seed merchandising, or for entrance into graduate school.

Proposed Changes and Brief Justification
The Department of Crop Sciences requests approval of the following proposed changes in our Crops concentration:

1. **Change:** Make the requirement for one course outside of Crop Sciences but within ACES nearly uniform across all six concentrations (ANSC 100, HORT 100, FSHN 101, NRES 102, or TSM 100). One exception retained is to include NRES 201 in this list for the Biological Sciences concentration since NRES 201 is not required in that concentration.

   **Justification:** This change is to make this requirement similar across the concentrations in the department. The requirement is currently inconsistent and confusing.

2. **Change:** Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   **Justification:** CPSC 241 is a statistics course that is taught with examples from the crop sciences, and is therefore particularly applicable to our majors.

3. **Change:** Add CPSC 473 (Management of Field Crop Insects) to the list of courses from which 12 hours are selected.

   **Justification:** CPSC 473 provides an upper level course in entomology for students to select if they so choose.

4. **Change:** Add several CPSC and PLPA classes as options in the list of classes to select from to fulfill the 12 hours in Crop Sciences requirement.
**Justification:** The newly developed plant pathology courses will provide students with more scheduling flexibility and provide a set of classes some students may wish to include in their curriculum.

**Budgetary and Staff Implications**
None. CPSC 241 and CPSC 473 have sufficient capacity to handle any additional students from this concentration.

**Clearances**

**Department**

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Robert G. Hoeft,
Head, Department of Crop Sciences

**College of ACES**

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F. William Simmons,
Assistant Dean, Academic Programs

**Senate Approval**

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Date ______

Date ______

Date ______
Proposal to Revise the Plant Biotechnology and Molecular Biology Concentration in the Department of Crop Sciences

Sponsor: Department of Crop Sciences
College of Agricultural, Consumer, and Environmental Sciences

Contact: Robert G. Hoeft, Head
Department of Crop Sciences
AW-101 Turner Hall, MC-046
333-9480
rhoeft@uiuc.edu

Frederic L. Kolb
Department of Crop Sciences
Teaching Coordinator
AE-120 Turner Hall, MC-046
333-9485, f-kolb@uiuc.edu

History of the Concentration
The Plant Biotechnology and Molecular Biology concentration was one of six concentrations created or revised in the mid-1990s, when the Departments of Agronomy and Plant Pathology merged to become the Department of Crop Sciences. The plant biotechnology and molecular biology concentration provides a curriculum that prepares students for careers in biotechnology or for entrance into graduate or professional school.

Proposed Changes and Brief Justification
The Department of Crop Sciences requests approval of the following proposed changes in our Plant Biotechnology and Molecular Biology concentration:

1. Change: Make the requirement for one course outside of Crop Sciences but within ACES nearly uniform across all six concentrations (ANSC 100, HORT 100, FSHN 101, NRES 102, or TSM 100). One exception retained is to include NRES 201 (Introductory Soils) in this list for the Biological Sciences concentration since NRES 201 is not a specific requirement in this concentration.

   Justification: This change is to make this requirement similar across the concentrations in the department. The requirement is currently inconsistent and confusing.

2. Change: Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   Justification: CPSC 241 is a statistics course that is taught with examples from the crop sciences, and is therefore particularly applicable to our majors.

3. Change: Add IB 150 as a requirement and MCB 150 to a list of course from which three are selected.

   Justification: IB 150 and MCB 150 are prerequisites for several required advanced level IB classes. Students in this concentration have already been taking these classes, so this change just makes the classes visible.
4. **Change:** Add a requirement for students in this concentration to select two courses from CPSC 226, CPSC 270 and PLPA 204.

**Justification:** These introductory classes in weed science, entomology and plant pathology will help students understand the relevancy and application of molecular genetics in managing plant pests.

**Budgetary and Staff Implications**
None. CPSC 226, CPSC 241, CPSC 270 and PLPA 204 have sufficient capacity to handle any additional students from this concentration.

**Clearances**

**Department**

Robert G. Hoeft,
Head, Department of Crop Sciences

**College of ACES**

F. William Simmons,
Assistant Dean, Academic Programs

**Senate Approval**
Proposal to Revise the Plant Protection Concentration in the Department of Crop Sciences

Sponsor: Department of Crop Sciences  
College of Agricultural, Consumer, and Environmental Sciences

Contact: Robert G. Hoeft, Head  
Department of Crop Sciences  
AW-101 Turner Hall, MC-046  
333-9480  
rhoeft@uiuc.edu

History of the Concentration
The Plant Protection concentration was one of six concentrations created or revised in the mid-1990s, when the Departments of Agronomy and Plant Pathology merged to become the Department of Crop Sciences. Of these concentrations, only Plant Protection required that students complete an internship, and therefore this concentration required 130 hours instead of the 126 hours required by the other five concentrations. Ten years of data show that about ¾ of all students who major in Crop Sciences complete one or more internships, regardless of their concentration. In addition, during the past decade the terminology chosen to describe this concentration, “Plant Protection”, has not become as widely accepted as has a synonymous term, “Integrated Pest Management”.

Proposed Changes and Brief Justification
The Department of Crop Sciences requests approval of the following proposed changes in our Plant Protection concentration:

1. **Change** concentration name from Plant Protection to Integrated Pest Management

   **Justification:** Integrated Pest Management is a term that is commonly used and well understood by scientists and by practitioners in our field.

2. **Change** required hours from 130 to 126

   **Justification:** All of the other concentrations in Crop Sciences require 126 hours. This concentration originally required more hours because of the required internship. We proposed to remove that requirement (see #5 below).

3. **Change** requirement from CPSC 112 (Introduction to Crop Sciences) OR HORT 100 (Introduction to Horticulture) to CPSC 112 (Introduction to Crop Sciences)

   **Justification:** When the curriculum was designed it was anticipated that a number of students interested in horticulture would participate. This has not happened, so there is no reason to have an introductory horticulture course listed as an option.
4. **Change:** Require CPSC 241 (Introduction to Applied Statistics) to fulfill the Quantitative Reasoning II requirement.

   **Justification:** CPSC 241 is a statistics course that is taught with examples from the crop sciences, and is therefore particularly applicable to our majors.

5. **Change:** Delete requirement for 3-5 hours of internship (CPSC 293 or CPSC 294)

   **Justification:** No other concentration in our department requires an internship. About 3/4 of our students across all concentrations complete one or more internships. We will continue to encourage students in this concentration to complete an internship, but it will not be required.

**Budgetary and Staff Implications**
None.

**Clearances**

- **Department**
  
  Robert G. Hoeft, Head
  Date 1/18/06

- **College of ACES**
  
  F. William Simmons,
  Assistant Dean, Academic Programs
  Date 4/12/06

- **Senate Approval**
  Date _____