

1. General Information

1a. Submitted by the College of: AGRICULTURE, FOOD AND ENVIRONMENT

Date Submitted: 3/6/2015

1b. Department/Division: Plant Pathology

1c. Contact Person

Name: Paul Vincelli

Email: pvincell@uky.edu

Phone: 859-218-0722

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Specific Term/Year¹ Fall, 2015

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: Yes⁴

2b. Prefix and Number: PPA 630

2c. Full Title: Introduction to Genetically Engineered Crops, Risks and Benefits I

2d. Transcript Title: Intro to GE Crops I

2e. Cross-listing:

2f. Meeting Patterns

DISCUSSION: 15

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 1

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

2j. Course Description for Bulletin: This is Part I of a two-part series of one-credit, graduate-level courses exploring GMO (genetically engineered) crops. In Part I (PPA 630), students will be introduced to what they are; and how GMO crops are similar to, and different from, other crops. In Part II (PPA 631), students will explore perceived risks and benefits to the use of these technologies.

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SENATE COUNCIL

2k. Prerequisites, if any: A Bachelor's degree in any subject; a college-level course in biology or permission of the instructor.

2l. Supplementary Teaching Component:

3. Will this course taught off campus? No

If YES, enter the off campus address:

4. Frequency of Course Offering: Fall,

Will the course be offered every year?: Yes

If No, explain:

5. Are facilities and personnel necessary for the proposed new course available?: Yes

If No, explain:

6. What enrollment (per section per semester) may reasonably be expected?: 10

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: No

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: Expected to be of special interest to Extension agents and other agricultural professionals working towards MS degrees in various disciplines.

8. Check the category most applicable to this course: Relatively New – Now Being Widely Established,

If No, explain:

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: No

If YES, name the proposed new program:

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached: Yes

Distance Learning Form

Instructor Name: Paul Vincelli

Instructor Email: pvincell@uky.edu

Internet/Web-based: Yes

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations? Course contact hours will be entirely synchronous discussion periods of assigned papers.

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. The reading content is the same regardless of the venue. Students are called on just as if they were in the room with me. Attendance is required no differently than my in-class teaching.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. Grading is based on synchronous participation in discussion and individual written work.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? Not to my knowledge.

If yes, which percentage, and which program(s)? Not applicable, does not apply.

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting? The students in this class will often be off-campus, but their access to student services should be the same as for any DL student.

6. How do course requirements ensure that students make appropriate use of learning resources? I will provide access to papers through Young Library, in accordance with the methods outlined by the DL Librarian.

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program. The entire course is based on reading through public-access websites or through Young Library.

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)? The syllabus provides guidance.

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? YES

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology. We will be using Adobe Connect, as indicated in the syllabus.

10. Does the syllabus contain all the required components? YES

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name: Paul Vincelli

SIGNATURE|SCHARDL|Christopher L Schardl|PPA 630 NEW Dept Review|20150115

SIGNATURE|LGRABAU|Larry J Grabau|PPA 630 NEW College Review|20150401

SIGNATURE|SCHARDL|Christopher L Schardl|PPA 630 NEW Dept Review|20150327

SIGNATURE|LGRABAU|Larry J Grabau|PPA 630 NEW College Review|20150401

SIGNATURE|ZNNIKO0|Roshan Nikou|PPA 630 NEW Graduate Council Review|20150410

New Course Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

Open in full window to print or save

Generate R

Attachments:

Browse...

Upload File

ID	Attachment
Delete 4725	Syllabus, Intro to GE Crops, Risks and Benefits I

First 1 Last

(*denotes required fields)

1. General Information

- a. * Submitted by the College of: Submission Date:
- b. * Department/Division:
- c.
 - * Contact Person Name: Email: Phone:
 - * Responsible Faculty ID (if different from Contact): Email: Phone:
- d. * Requested Effective Date: Semester following approval OR Specific Term/Year ¹
- e.
 - Should this course be a UK Core Course? Yes No
 - If YES, check the areas that apply:
 - Inquiry - Arts & Creativity Composition & Communications - II
 - Inquiry - Humanities Quantitative Foundations
 - Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning
 - Inquiry - Social Sciences U.S. Citizenship, Community, Diversity
 - Composition & Communications - I Global Dynamics

2. Designation and Description of Proposed Course.

- a. * Will this course also be offered through Distance Learning? Yes ¹ No
- b. * Prefix and Number:
- c. * Full Title:
- d. Transcript Title (if full title is more than 40 characters):
- e. To be Cross-Listed ² with (Prefix and Number):
- f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.

<input type="text"/> Lecture	<input type="text"/> Laboratory ⁴	<input type="text"/> Recitation	<input type="text" value="15"/> Discussion
<input type="text"/> Indep. Study	<input type="text"/> Clinical	<input type="text"/> Colloquium	<input type="text"/> Practicum
<input type="text"/> Research	<input type="text"/> Residency	<input type="text"/> Seminar	<input type="text"/> Studio
<input type="text"/> Other		If Other, Please explain: <input type="text"/>	
- g. * Identify a grading system:
 - Letter (A, B, C, etc.)
 - Pass/Fail
 - Medicine Numeric Grade (Non-medical students will receive a letter grade)
 - Graduate School Grade Scale
- h. * Number of credits:
- i. * Is this course repeatable for additional credit? Yes No
 - If YES: Maximum number of credit hours:
 - If YES: Will this course allow multiple registrations during the same semester? Yes No

j. * Course Description for Bulletin:

This is Part I of a two-part series of one-credit, graduate-level courses exploring GMO (genetically engineered) crops. In Part I (PPA 630), students will be introduced to what they are; and how GMO crops are similar to, and different from, other crops. In Part II (PPA 631), students will explore perceived risks and benefits to the use of these technologies.

k. Prerequisites, if any:

A Bachelor's degree in any subject; a college-level course in biology or permission of the instructor.

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 10

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

Expected to be of special interest to Extension agents and other agricultural professionals working towards MS degrees in various disciplines.

8. * Check the category most applicable to this course:

Traditional - Offered in Corresponding Departments at Universities Elsewhere

Relatively New - Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

b. * Will this course be a new requirement ^s for ANY program? Yes No

If YES ^s, list affected programs::

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identification of add assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10 attached.

Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL fields are required!

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a fo educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies

A number of specific requirements are listed for DL courses. The **department proposing the change in delivery method is responsible for ensuring that the requirements are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience utilizing DL (available at <http://www.uky.edu/USC/New/forms.htm>).

Course Number and Prefix:	PPA 630	Date:	1/14/2015
Instructor Name:	Paul Vincelli	Instructor Email:	pvincelli@uky.edu
Check the method below that best reflects how the majority of the course content will be delivered.			
Internet/Web-based <input checked="" type="checkbox"/> Interactive Video <input type="checkbox"/> Hybrid <input type="checkbox"/>			

Curriculum and Instruction

- How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Syllabus Guidelines, specifically the Distance Learning Considerations?
Course contact hours will be entirely synchronous discussion periods of assigned papers.
- How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, and student learning outcomes, etc.
The reading content is the same regardless of the venue. Students are called on just as if they were in the room with me. Attendance is required no differently than my in-class teaching.
- How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic policy; etc.
Grading is based on synchronous participation in discussion and individual written work.
- Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any of the methods defined above?
Not to my knowledge.

Which percentage, and which program(s)?
Not applicable, does not apply.

*As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery is 12 months from the date of approval.
- How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?
The students in this class will often be off-campus, but their access to student services should be the same as for any DL student.

Library and Learning Resources

- How do course requirements ensure that students make appropriate use of learning resources?
I will provide access to papers through Young Library, in accordance with the methods outlined by the DL Librarian.
- Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.
The entire course is based on reading through public-access websites or through Young Library.

Student Services

- How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)?
The syllabus provides guidance.
- Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)?
 Yes
 No

If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.
We will be using Adobe Connect, as indicated in the syllabus.
- Does the syllabus contain all the required components, below? Yes
 - Instructor's *virtual* office hours, if any.
 - The technological requirements for the course.
 - Contact information for Distance Learning programs (<http://www.uky.edu/DistanceLearning/>) and Information Technology Customer Service Center (<http://www.uky.edu/UKIT/Help/>; 859-218-HELP).
 - Procedure for resolving technical complaints.
 - Preferred method for reaching instructor, e.g. email, phone, text message.
 - Maximum timeframe for responding to student communications.
 - Language pertaining to academic accommodations.

- "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."

- Specific dates of face-to-face or synchronous class meetings, if any.
- Information on Distance Learning Library Services (<http://www.uky.edu/Libraries/DLIS>)
 - Carla Cantagallo, DL Librarian
 - Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)
 - Email: dllservice@email.uky.edu
 - DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?iweb_id=253&ilib_id=16

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

Paul Vincelli

Abbreviations: DLP = Distance Learning Programs ATG = Academic Technology Group Customer Service Center = 859-218-HELP (<http://www.uky.edu/UKIT/Help>)

Revised 8/09

^[1] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

^[2] The chair of the cross-listing department must sign off on the Signature Routing Log.

^[3] In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)

^[4] You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

^[5] In order to change a program, a program change form must also be submitted.

Rev 8/09

PPA 630, one credit
Introduction to Genetically Engineered Crops, Risks and Benefits I
Syllabus

Teacher

Paul Vincelli, Ph.D.

Dept. of Plant Pathology

207 Plant Science Building

Office phone: (859) 218-0722

Fax: (859) 323-1961

pvincell@uky.edu

No formal office hours are set for this course, though appointments are always available by request. I try to be fully available to all students in the class. I can be contacted via email and phone as my schedule permits. Responses will generally be within four hours, though in some cases, response overnight may occur (for example, when I am travelling).

Course Description

This is Part I of a two-part series of one-credit, graduate-level courses exploring genetically engineered crops (often referred to as GMOs, or genetically modified organisms). In Part I (PPA 630), students will be introduced to what they are; and how genetically engineered crops are similar to, and different from, other crops. In Part II (PPA 631), students will explore perceived risks and benefits to the use of these technologies.

Prerequisites

A Bachelor's degree in any subject; a college-level course in biology or permission of the instructor.

Principal Student Learning Outcomes

- Part I (PPA 630, this syllabus)
 - Distinguish key approaches to genome modification via genetic engineering (GE) technologies
 - Compare and contrast GE technologies to other crop-improvement techniques
 - Investigate literature relating to the evaluation of GE crops for substantive changes
- Part II (PPA 631, the second in this course series)
 - Evaluate scientific aspects of risks of GE crops, including potential concerns over human health, transgene flow, and biodiversity
 - Explore potential socioeconomic concerns, including impacts on indigenous/peasant farming communities and other
 - Recognize impacts of present-day GE crops
 - Discuss potential benefits and risks of new and emerging GE traits

Learning approach

For each class topic, all students must be prepared to present a 4-5 minute overview of the assigned reading/activity, as one student will be selected at random to present key results and their significance. Then the topic will be discussed by all students. Within 48 h after class, students must share a 200-300 word summary of each discussion on the assigned reading/activity.

Meeting times (for Synchronous Discussions)

Tuesday 3:00-4:00 Eastern Time

Week	Topic
1	Global agricultural challenges (food security, sustainability)
2	Basic concepts in molecular biology "Cookbook" metaphor for communicating molecular concepts
3	Crop transformation: transgenesis, cisgenesis and intragenesis
4	Crop transformation: transgenesis, cisgenesis and intragenesis
5	Natural processes resulting in substantial genetic changes (transposons, horizontal gene transfer)
6	Natural processes resulting in substantial genetic changes (transposons, horizontal gene transfer)
7	Comparison to other crop improvement techniques (conventional breeding, marker-assisted selection, protoplast fusion, tissue culture, mutation breeding)
8	Comparison to other crop improvement techniques
9	Current GE traits in use
10	Current GE traits in use
11	Evaluation for substantive changes (crop composition, omics)
12	New technologies: Genome editing and RNAi
13	New technologies: Genome editing and RNAi
14	Open

Assessment and Grade Apportionment

- **Written summaries, together worth 90% of the final grade.** All students must email a 300-350 word abstract after each discussion on the assigned reading/activity. The abstract must be original, in your own words. ***Abstracts will only be accepted if the student was in attendance online for at least 40 minutes of the class discussion corresponding to that topic.*** Students must notify the instructor of absences prior to class whenever possible. Exceptions to the requirement for attendance will be based on UK University Senate Regulation 5.2.4.2. This regulation defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor. Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754). In

accordance with university policy, students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused).

- **Final oral exam, worth 10% of final grade.** Conducted via Adobe Connect or Lync, individual exam for each student.

Required Materials

Most readings will be provided by the instructors. In some cases (announced in advance), students will be expected to independently find credible information relevant to the topic.

Grade Determination

A = 90 – 100%

B = 80-89%

C = 70 – 79%

E = 69 or below

Hardware/Computing Issues

We will be using Adobe Connect for synchronous, online discussions. ASAP, click on the link at https://connect.uky.edu/common/help/en/support/meeting_test.htm.

This Adobe Connect 'Connection Test' link will allow you to check their flash, server connection test, internet speed test and to install the Adobe Connect Add-In, apparently necessary to use Adobe Connect.

Hardware requirements are described at the URLs below. Make sure to use a headset, in order to reduce "echoes".

<http://www.uky.edu/ukit/hardwareguide>

<http://www.uky.edu/DistanceLearning/faculty/technology/techReqs.html>

Classes will be held via AdobeConnect, at: <http://connect.uky.edu/ppa620-2014/>. It is suggested that you connect via Mozilla Firefox; other browsers tend to have more connection problems. Also, it is recommended to close down all other communications software before invoking Adobe Connect.

Helpful UK Resources

To resolve technical IT issues, contact UK's Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>, or call at 859-218-HELP). UK's Distance Learning programs (<http://www.uky.edu/DistanceLearning>) can also be helpful for students with limited experience with online learning.

See also Information on Distance Learning Library Services (<http://www.uky.edu/Libraries/DLLS>)

- Carla Cantagallo, DL Librarian, 859-218-1240
- Email: carla@uky.edu
- DL Interlibrary Loan Service: <http://libraries.uky.edu/DLLS>

Verification of Absences

Students may be asked to verify their absences from class in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences for professional reasons is required prior to the absence. **Only three absences relating to professional conflicts will be excused for each student.**

Academic Integrity

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website:

<http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of Student Rights and Responsibilities (<http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations Due to Disability

Students with a documented disability that requires academic accommodations should consult as soon as possible with the instructor. In order to receive accommodations in this course, you must provide a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

Emergencies

If an emergency arises in this classroom, building or vicinity, your instructor will advise you of actions to follow to enhance your safety. If a situation requires emergency shelter (i.e., during a severe weather event), the nearest shelter location is Plan Science Building. If building evacuation occurs (i.e., fire alarm), follow posted evacuation routes and assemble at the quadrangle outside the Plant Science Bldg so the instructor can help ensure their students have evacuated the building safely and they are not hindering emergency personnel access to the building. If you may require assistance during an emergency, notify the instructor at the beginning of the semester. In order to prepare for emergencies while on campus please continue to the below links for detailed emergency response guidelines: the UK Division of Crisis Management & Preparedness website (<http://www.uky.edu/EM/emergency-response-guide.html>) and the College of Agriculture, Food and Environment (<http://www.ca.uky.edu/>). To receive emergency messages, sign up for UK Alert (<http://www.uky.edu/EM/UKAlert>). Always turn cellular phones to silent mode when entering the classroom. If you observe or receive an emergency alert, immediately and calmly inform your instructor.