

## Multi-Campus Plant Propagation Course®

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**The Pennsylvania State University has 24 campus locations, two currently teaching Plant Propagation (Horticulture 202). In the past several years, the University has been creating many online courses, which are available to students at all campus locations. These courses encourage students as well as working professionals to take online courses that are identical to traditional classroom courses. By utilizing the technological advances at Penn State, traditional classroom courses taught by different professors at separate campuses can be coordinated so that students receive the same educational experiences regardless of their campus location. By enhancing the Plant Propagation course through the use of online technology as well as classroom settings to convey information, one uniform course can be taught at numerous locations, allowing students to receive the same educational experiences and evaluations as students at other Penn State campuses.**

### PURPOSE / OBJECTIVE

The purpose of this coordination was to provide Penn State students with the same Plant Propagation course, regardless of their campus location. The course was taught by David Sanford Ph.D. at the Berks Campus and by Robert Berghage Ph.D. at the University Park Campus; and, although the courses have always been similar, laboratory exercises and grading evaluations have varied greatly. For example, students at the University Park Campus spent several laboratory periods working on tissue culture techniques including putting tissue and/or seeds into culture, subculturing plants, and bringing plants out of culture, yet students at the Berks Campus only subcultured plants during one laboratory exercise and were unable to embrace the opportunity to learn about the early and final stages of micropropagation first hand. Other significant differences between the two campus courses existed in the grading and evaluations of students (Table 1). As shown, exams were more heavily weighted and more laboratory and plant reports were required of students at the Berks campus location. As such, an “A” (or any other

grade) earned at one campus may not have been a true reflection of the knowledge or experiences gained when compared to an “A” (or any other grade) earned at the other location. It is desirable for students to receive the same education in the Penn State Plant Propagation Course regardless of the location where they receive instruction (The Pennsylvania State University, 2005); this is especially significant as more advanced courses expect all students to have the same basic understanding of propagation methods. This effort was therefore undertaken to coordinate all facets of instruction and maintain a consistency and continuity of materials taught including online technology, reading assignments, laboratory exercises and topics, methods of evaluation (tests, quizzes), and report writing.

### IMPLEMENTED CHANGES

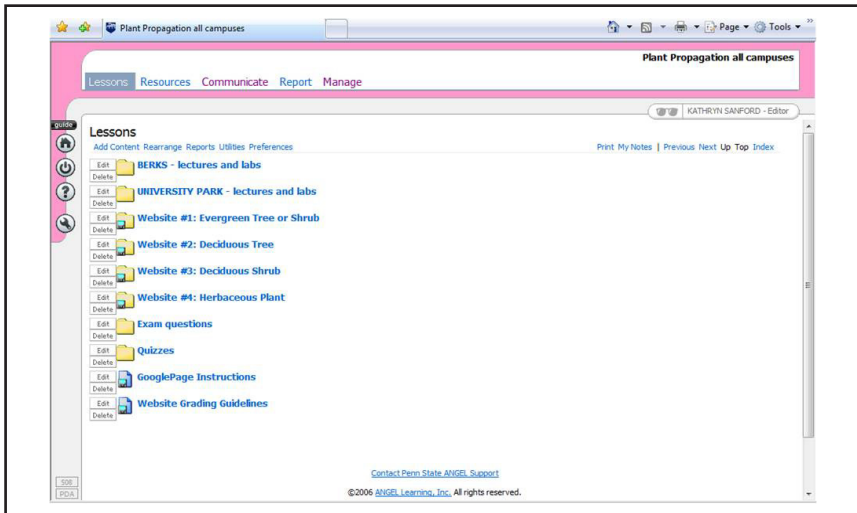
In order to provide students at both locations with the same plant propagation information, several changes were made including the reorganization of the syllabi, the restructuring of the grading scales including the respective weights for each assignment, and the creation of one online course management structure through ANGEL (A New Global Environment for Learning). The reorganization of the syllabi at both campuses allowed the lecture material to be synchronized and coordinated so that similar lectures were presented for each topic in the same sequence and timeframe. In order to maintain a uniform grading scale between the campuses, the grading scales and respective weights for each assignment were restructured. In so doing, each course at each campus required the same number of assignments representing the same amount of points (Tables 1 and 2). By creating one online ANGEL course, students at one campus location were able to interact with those at the other and this also allowed access to all documents related to the course, regardless of campus location (Fig. 1).

**Table 1:** Original assignments and grading scales from both the Berks Campus and the University Park Campus, based on Spring 2007 syllabi.

Berks Campus		University Park Campus	
Assignment	Grading Scale (% of Final Grade)	Assignment	Grading Scale (% of Final Grade)
3 hourly exams	50% total	3 hourly exams	36% total
Optional final exam	Replaces lowest exam score	Optional final exam	Replaces lowest exam score
3 lab reports	25% total	1 lab report	8% total
4 plant reports	17% total	1 plant presentation	Written report = 6%, Oral report = 10%
No online quizzes	0%	10 online quizzes (lowest score dropped)	18% total
Participation, lab quizzes, etc.	8%	Participation, lab quizzes, etc.	22%

**Table 2:** Modified syllabus, now utilized at both campus locations.

Both Campus Locations	
Assignment	Grading scale (% of final grade)
3 hourly exams	43% total
Optional final exam	Replaces lowest exam score
3 lab reports	21% total
4 plant reports	14% total
10 online quizzes (lowest score dropped)	13% total
Participation, attendance, etc.	9%

**Figure 1.** Main screen of the online ANGEL course with all documents, drop-boxes for plant reports, and online quizzes as shown.

## CONCLUSION

The Pennsylvania State University's Senate Committee works hard to maintain academic consistency between campuses and The Penn State Steering Committee for Transition has stated:

*"Every effort should be made for curricular consistency among the campuses. The first two years of the baccalaureate programs should be compatible to allow for easy flow among campuses..."* (The Pennsylvania State University, 2005).

The revision of the Plant Propagation Course now allows students to learn and experience the same concepts through similar lectures and laboratory exercises and provides a consistent grading scale between the two campuses as each assignment is weighted equally. This program has successfully provided a class that is identical in structure, information, requirements, and evaluation, regardless of the campus location. With this coordination, the groundwork has been established to allow future students to work together on projects between campuses.

**LITERATURE CITED**

- The Pennsylvania State University.** Sept. 26, 2008. "Senate committee on curricular affairs: Uniformity of course abbreviations within disciplines." Appendix E. <[http://www.senate.psu.edu/agenda/apr26-05agn/app\\_e.pdf](http://www.senate.psu.edu/agenda/apr26-05agn/app_e.pdf)>.
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