

From: Leslie Alexander [mailto:alexander.282@gmail.com]
Sent: Wednesday, April 27, 2011 3:51 PM
To: Jill Pfister; Sarah Lang; Andrew Blasenak
Subject: Next set of questions

Dear Jill,

I hope all is well.

As I mentioned earlier, I have a series of questions for you regarding several of the FAES programs. They are listed below, and we appreciate your help very much. I have copied Andrew and Sarah on this email in case they have anything to add.

Best, Leslie

Leadership Studies minor

1. Can you add an explicit statement to the transition plan that reiterates your commitment to the university's policy that no student will be negatively impacted by the process of semester conversion?
2. Can you explain the rationale behind requiring 12 credit hours at 3000 level or above? It seems like this may cause a conflict with the number of 2000 level courses
3. Is there a specific transition policy just for this minor?
4. Can you explain the rationale for not allowing particular majors to take this minor?

Agricultural Communication minor

1. Can you add an explicit statement to the transition plan that reiterates your commitment to the university's policy that no student will be negatively impacted by the process of semester conversion?
2. Why are only 6 credit hours required at the 3000 level when there are 12 credit hours required for Leadership Studies?
3. Is there a specific transition policy just for this minor? Is there a designated advisor for students to consult with?

Plant Health Management, BS

1. Is the CFAES Gen Ed list different from the list approved by ASC? If so, can you give us a copy of the CFAES list?
2. You mention that PLNTPTH 587 will be available as a Contemporary Issues course--is this a new GEC that you are offering? If so, has it been approved by ULAC?
3. What if a student tests out of Math 148/150? Are they still required to take another math course, and if so which one?

Plant Pathology BS

1. Is the CFAES Gen Ed list different from the list approved by ASC? If so, can you give us a copy of the CFAES list?

2. What if a student tests out of Math 148/150? Are they still required to take another math course, and if so which one?

3. There seem to be a lot of question marks on the advising sheet. Have you had any further conversations with the other units about the exact credit hours?

--

Leslie M. Alexander, Ph.D.
Associate Professor
Department of History
The Ohio State University

From: **Jill Pfister** <pfister.1@osu.edu>

Date: Mon, May 2, 2011 at 8:52 AM

Subject: RE: Next set of questions

To: Leslie Alexander <alexander.282@gmail.com>, Sarah Lang <lang.279@osu.edu>, Andrew Blasenak <blasenak.1@osu.edu>

Let me take some time to address these questions.

CFAES is committed to the transition of students and the University policy that no student will be negatively impacted by the process of semester conversion. To emphasize this I am holding four workshops this quarter for faculty advisers and student support staff. These workshops will be repeated in June and early September with the hopes of catching all faculty and staff working with students. The workshops are focused on:

1. An update of where we are in the Q2S approval system, General Ed curriculum, review of all majors in the college, review of all minors administered by the college. First workshop was held this past Friday and 25 attended.
2. AdvisingConnect – Training for use as a tool in advising – scheduled for this Friday
3. Degree Audits and their use in Q2S – scheduled for May 20
4. Advising the Transition Student – scheduled for June 3

Each major prepared four year plans, one year semesters and three years quarters, two years semester and two years quarters etc. We start working with students about minors as early as orientation. It is emphasized again in FAES 100. Students are asked to declare the minor by the end of the second year so they have enough time to plan out the courses in the minor. Most of the minors are converted so there should be no issues with completion but when there is considerable change the adviser and myself will

work with the student so as not to cause a delay in graduation as long as the student is holding up his or her responsibility toward completing the degree. If the minor is not declared until the last year or last quarter it is difficult to complete in that short period of time.

All minors submitted by CFAES should have a statement similar to “At least six hours must be at the 3000 level or above”. ASC required that this statement be included in each minor. The leadership minor is incorrect and we will correct it. It should be six hours, not 12.

CFAES has a philosophy about selecting minors which overlap with majors. If there is too much duplication the minor is excluded. For example, an Animal Sciences student can not select an Animal Nutrition minor. Many of the nutrition courses are in the major. The Animal Nutrition minor is designed for students outside of the Animal Sciences major. The CFAES faculty Committee on Academic Affairs recently finalized the minors which are excluded from certain majors and the chart is attached. It is easier to view the College as a whole.

The template we used for the BS in AGR is similar to that of ASC. The only difference is the math requirement which is not a change from what we have had previously. I have attached the Gen Ed that I submitted. It is a chart of quarters compared to semesters. We also are maintaining the Contemporary Issues requirement for the B.S. in Agr. All of this is discussed in my cover letter. Our college has offered several Contemporary Issues and this will continue. Plant Path 597 is not a new course. The list of Gen Ed courses we are offering is in the attached table. This is in my cover letter also.

In the past CFAES has required all students to have credit for a college math course on the transcript. If they earn EM credit that is fine but they must have credit for at least the minimum math requirement for the major. If they place into level L they will need to take Math 150 or 151 course. If they place into level M they take Math 150 and so on. Testing level does not place a student out of college math.

The Plant Path and Plant Health mgt majors sheets have been revised now that we know more of the numbers. The revised sheets are attached.

I think I have addressed all your questions. Let me know if you have any further questions.

Jill A. Pfister

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College of FAES/BS in Agriculture Quarter and Semester Comparison of General Education Requirements							
General Education Curriculum (GEC) Quarter-Hour Requirements				General Education (GE) Semester-Hour Requirements (Effective SU12)			
Course Type	# of Courses	Hours/Units	Notes	Course Type	# of Courses	Hours/Units	Notes
Writing & Related Skills	3	15	Level 1 & 2, and Oral Expression course	Writing	3	9	Level 1 & 2, oral expression
Arts and Humanities	2	10	1 Literature and 1 Visual/Performing Arts	Literature	1	3	
				Arts	1	3	
Quantitative & Logical Analysis (Includes data analysis)	1	4	Math 130 or 148	Math	1	4	Minimum of Math 130 or 148
				Data Analysis	1	3	
Natural Science Biological Physical	5	25	At least 1 bio, 1 phys, 1 lab course, and sequence (Math 131 & 151 additional options)	Science Biological Physical	2	8-10	Biological science with lab Physical Science with lab
Historical Study	1	5		Historical Study	1	3	
Social Science	3	15	Rural Soc 105 or Soc 101 & AED Econ 200 or Econ 200	Social Science	2	6	Rural Soc 1500 or Soc 101 AED Econ 2001 or Econ 2001
				Culture & Ideas or Historical Study	1	3	
Additional Breadth Selections	0	0		Open Options ³	2	6-10	Open Option 1: Additional Natural Science (Math 131 or 151 serves as an option) Open Option 2: Additional Natural Science or Social Science depending on major
Foreign Language	0	0		Language proficiency level	0	0	
Diversity Experiences Social Diversity International Issues ¹	1	0-15	May overlap with another category	Social Diversity in the US	1	3	May overlap with another category (Rural Soc 1500 or Soc 101)
	2						
Issues of the Contemporary World	1	5		Global Studies	2	6	May overlap with another category
	-			Contemporary Issues or College wide Capstone	1	3	
Other ²		23-30		Other ²		13-17	
	19	102-124		Total	19	73-83	

International Issues: At least one non-western course and second course can be non-western or western (non-US)

²Other: Degree requires internship (3-5 hrs) and minor (20-25 hrs)

²Other: Degree requires internship (1-2) and minor or minor equivalent (12-15)

GENERAL EDUCATION COURSES
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES
December, 2010

Course No.	Course Title	CR. HRS.	GEC Category
NEW COURSES			
PLNTPH 2000	Molds, Mushrooms, and Man	3	Natural Science
COMLDR 2550	The Land Grant Influence	3	Historical Study
ENTMLGY 1111	Biology of Insects, Animals & Fungi Affecting Buildings	4	Natural Science
REVISED COURSES			
ENTMLGY 1101	Insect Biology	4	Natural Science
ENTMLGY 2101	Insects & Human Affairs: Pests, Plagues, Poisons & Politics	3	Cultures & Ideas
HCS 2201E	Ecology of Managed Plant Systems – Honors Embedded	4	Natural Science
HCS 2201	Ecology of Managed Plant Systems	4	Natural Science
HCS 2202E	Form and Function in Cultivated Plants – Honors Embedded	4	Natural Science
HCS 2202	Form and Function in Cultivated Plants	4	Natural Science
HCS 2260	Data Analysis and Interpretation for Decision Making	3	Data Analysis
ENR 2367	Communicating Contemporary Environmental and Natural Resources Issues	3	2 nd Writing Course
ENR 3000 & 3001	Soil Science (lecture and lab)	3	Natural Science
CONVERTED COURSES – SEMESTER EQUIVALENT			
ENR 1010	Soils in our Environment	4	Natural Science
RURLSOC 1500	Introduction to Rural Sociology	3	Social Science – O&P
ENR 2000	Natural Resources Data Analysis	3	Data Analysis
AEDECON 2001H	Principles of Food and Resource Economics - Honors	3	Social Science – HNER
AEDECON 2001	Principles of Food and Resource Economics	3	Social Science – HNER
AEDECON 2005	Data Analysis for Agribusiness and Applied Economics	3	Data Analysis
ENR 2100	Introduction to Environmental Science	3	Natural Science
ENR 2155	Energy and Environment	4	Natural Science
FDSCTE 2200	The Science of Food	3	Natural Science
HCS 2200	Art and Science of Sustainable Plant Production	3	Natural Science
ANIMSC 2260	Data Analysis and Interpretation for Decision Making	3	Data Analysis
ENR 2300	Society and Natural Resources	3	Social Science – HNER
ANIMSC 2367	Animals in Society	3	2 nd Writing Course/Social Science – HNER
ANIMSC 3140	Principles of Animal Systems Physiology	3	Natural Science
AGRCOMM 2367	Agricultural Issues in Contemporary Society	3	2 nd Writing Course/Social Diversity
AEDECON 2580	Feast or Famine: The Global Business of Food	3	Social Science – HNER and International issues
ENTMLGY 3330	Social Insects	3	
ENR 3470	Religion and Environmental Values in America	3	Social Science
COMLDR 3535S	Toward Cultural Proficiency	3	Culture and Ideas
COMLDR 3537	Data Analysis in the Applied Sciences	3	Data Analysis
RURLSOC 3580	Social Groups in Developing Societies	3	Social Science I&G and International Issues
AEDECON 3597.01H	Problems and Policies in World Population, Food, and Environment-Honors	3	Contemporary Issues
AEDECON 3597.01	Problems and Policies in World Population, Food, and Environment	3	Contemporary Issues
FDSCTE 3597.01	Alcohol and Society	3	Contemporary Issues
FDSCTE 3597.02	Food and Health Controversies in the 21 st Century	3	Contemporary Issues
PLNTPH 3597	Societal Issues: Pesticides, Alternatives, and the Environment	3	Contemporary Issues
ANIMSC 3597	Issues Concerning the Use of Animals by Humans	3	Contemporary Issues
ENR 4000	Environmental and Natural Resources Policy	3	Social Science – O&P

B.S. in Agriculture
Major: Plant Pathology

*All students must complete two Global Issues courses. This requirement is the successor to the diamond and asterisk requirement.
All students must take a Social Diversity requirement which in the GE was completing Rural Sociology 1500 or Sociology 101.*

FAES 100 or USAS 100, etc	1	Social Science 1 (Rural Soc 1500 or Soc 101)	3
Writing Level 1 (ENG 110)	3	Social Science 2 (AED Econ 2001 or Econ 2001)	3
Writing Level 2 (from list) (2367)	3	Historical Study	3
Agr Comm 3130 or Comm 321	3	Culture & Ideas or Historical Study	3
Math 1148 or 1150	4	Literature	3
Data Analysis (from list)	3	Art	3
Biology 1101, 1113, 1115H, ENTMLGY 1101, HCS 2201, or MOLGEN 1101	5	Contemporary Issues/College Capstone (3597)	3
Chemistry 1210 or 1910H	5	Minor	12-15
Chemistry 1220 or 1920H	4	Major	36
Biology 1114, ENTMLGY 2101, HCS 2202, MolGen 3300	3-5	Internship/Experiential Learning (PLNTPH 4191)	2
		<u>Electives</u>	<u>11-16</u>
		TOTAL	121
			36

Major Requirements

MOLGEN 4500: General Genetics			3
MICROBIOL 4090: Basic and Practical Microbiology			4
ENR 3000 (lecture) and ENR 3001 (lab): Soil Science			4
PLNTPH 5603: Plant Disease Management			3
PLNTPH/ENTMLGY 5604: Capstone Course: Problem-Based Studies in Plant Health			2
MOLGEN 3436: Introductory Plant Physiology			3
CHEM 2310: Introductory Organic Chemistry			4
<u>Select one of the following plant pathology options:</u>			
PLNTPH 3001 AND PLNTPH 3002: General Plant Pathology-lecture AND lab			4
PLNTPH 6001: Advanced Plant Pathology			3
<u>Select two of the following (4-6 credit hours):</u>			4-6
PLNTPH 5010: Phytobacteriology			2
PLNTPH 5020: Virology			2
PLNTPH 5030: Nematology			2
PLNTPH 5040 and 5041: Science of Fungi: Mycology Lecture and Lab			4
PLNTPH 5110/ENTMLGY 5110: Ecology & Mgmt of Pathogens & Insects Affecting Trees in Forest & Urban Envts			3
PLNTPH 5120: Diseases of Ornamentals			2
PLNTPH 5130: Turf Diseases and Integrated Turf Health Management			3
PLNTPH 5140: Diseases of Field Crops			2
PLNTPH 5150: Fruit and Vegetable Diseases			2
PLNTPH 5685: Plant Disease Diagnosis			2
<u>Electives: Select a minimum of one course from the following to fulfill major (4-6 credit hours):</u>			4-6
BIOCHEM 2210: Elements of Biochemistry			4
CHEM 2510: Organic Chemistry I			4
CHEM 2520: Organic Chemistry II			4
ENR 5270: Soil Fertility			3
ENR 5272: Urban and Sports Turf Soils			3
ENTMLGY 3000: General Entomology			3
ENTMLGY 4600: Introduction to Insect Science			1
ENTMLGY 4601: General Insect Pest Management			2
ENTMLGY 4602: Urban Landscape and Greenhouse Entomology			2
ENTMLGY 4603: Agricultural Entomology			2
ENTMLGY 4604: Urban Entomology			2
ENTMLGY 4606: Introduction to Forensic Entomology			2
ENTMLGY 4607: Veterinary Entomology			2
HCS 4325: Plant Genetics			3
HCS 4411: Grain, Oilseed, and Fiber Crops			3
HCS 5412: Forages, Grasslands, and Prairies			3
HCS 5422: Principles of Weed Ecology and Management			3
HCS 5450: Vegetable Crop Production and Physiology			3
HCS 5460: Fruit Crop Physiology and Production			3
MICROBIOL 5000: General Microbiology			5
MICROBIOL 5081: Microbial Genetics			3
MOLGEN 5643: Plant Anatomy			3
PLNTPH 5010, 5020, 5030, 5040 and 5041, 5110(ENTMLGY 5110), 5120, 5130, 5140, 5150, and 5685 (if not taken above)			2-4
			4/28/2011

Status: PENDING

PROGRAM REQUEST
Major in Plant Pathology

Last Updated: Stokoe, Laurie Anne
01/14/2011

Fiscal Unit/Academic Org	Plant Pathology - D1178
Administering College/Academic Group	Food, Agric & Environ Science
Co-administering College/Academic Group	
Semester Conversion Designation	New Program/Plan
Proposed Program/Plan Name	Major in Plant Pathology
Type of Program/Plan	Undergraduate bachelors degree program or major
Program/Plan Code Abbreviation	PLNTPTH
Proposed Degree Title	Bachelor of Science in Agriculture

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program				36	
Required credit hours offered by the unit	Minimum			18	
	Maximum			19	
Required credit hours offered outside of the unit	Minimum			18	
	Maximum			24	
Required prerequisite credit hours not included above	Minimum			5	
	Maximum			15	

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

Program Learning Goals

- (See attached file for specially formatted learning outcomes.)
- Appreciate disease threats to the food supply and environment and how these events impact global and societal issues.
- Understand the role of federal, research, and regulatory scientific institutions and how policy considerations impact management decisions.
- Describe biotic and abiotic causes of plant disease, the nature of plant-microbe interactions, and factors influencing disease development as related to the Disease Triangle.
- Utilize the primary informational resources in plant health and pest management.
- Communicate in oral and written formats the tenets of plant pathology and basic plant health.
- Demonstrate critical thinking and problem solving skills related to plant health investigations.
- Apply classical and molecular laboratory techniques for the identification, manipulation, and classification of plant-associated microbes.
- Design and implement environmentally-sound disease management strategies and methods used in controlling plant diseases.
- Formulate judgement and demonstrate professional behavior consistent with the highest ethical and moral standards.

Status: PENDING

PROGRAM REQUEST
Major in Plant Pathology

Last Updated: Stokoe, Laurie Anne
01/14/2011

Assessment

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? Yes

Does the degree program or major have an assessment plan on file with the university Office of Academic Affairs? No

A full assessment plan has been submitting using the survey form

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

Pre-Major

Does this Program have a Pre-Major? No

Attachments

- PLNTPTH Major Learning Outcomes 7-28-10.docx: PLNTPTHMajorLearningOutcomes9-13-10
(Other Supporting Documentation. Owner: Ellis, Sarah Dee)
- PLNTPTH Major Assessment Plan 11-19-10.pdf: PLNTPTHMajorAssessmentPlan11-19-10
(Curricular Map(s). Owner: Ellis, Sarah Dee)
- PLNTPTH Major Program Proposal 12-1-10.pdf: PLNTPTHMajorProgramProposal12-1-10
(Program Proposal. Owner: Ellis, Sarah Dee)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Ellis, Sarah Dee	10/01/2010 10:31 AM	Submitted for Approval
Approved	Graham, Terrence Lee	10/01/2010 11:42 AM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	10/18/2010 10:51 AM	College Approval
Submitted	Ellis, Sarah Dee	10/28/2010 01:29 PM	Submitted for Approval
Approved	Mitchell, Thomas Kenneth	10/28/2010 01:55 PM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	11/05/2010 03:56 PM	College Approval
Submitted	Ellis, Sarah Dee	11/10/2010 03:55 PM	Submitted for Approval
Approved	Mitchell, Thomas Kenneth	11/10/2010 05:22 PM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	11/16/2010 07:37 AM	College Approval
Submitted	Ellis, Sarah Dee	11/22/2010 02:40 PM	Submitted for Approval
Approved	Mitchell, Thomas Kenneth	11/22/2010 02:54 PM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	11/29/2010 03:23 PM	College Approval
Submitted	Ellis, Sarah Dee	12/08/2010 03:47 PM	Submitted for Approval
Revision Requested	Ellis, Sarah Dee	12/08/2010 03:52 PM	Unit Approval
Submitted	Ellis, Sarah Dee	12/08/2010 03:54 PM	Submitted for Approval
Approved	Mitchell, Thomas Kenneth	12/08/2010 05:18 PM	Unit Approval
Approved	Stokoe, Laurie Anne	01/14/2011 04:07 PM	College Approval
Pending Approval	Soave, Melissa A	01/14/2011 04:07 PM	CAA Approval



Department of Plant Pathology

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Phone (614) 292 -1375
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September 15, 2010

Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall
Columbus, OH 43210

Dear Office of Academic Affairs,

Currently the Department of Plant Pathology consists of 4 programs: Minor in Plant Pathology, Major in Plant Health Management, Masters of Science in Plant Pathology, and Doctorate of Plant Pathology. All programs will remain in the semester system with modifications to each and the addition of a new major (Major in Plant Pathology) and tagged masters (Master in Plant Health Management).

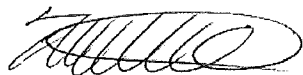
The following document is the proposed new Major in Plant Pathology (within the College of Food, Agricultural and Environmental Science) to begin Summer of 2012. Currently the only undergraduate major in our department is Plant Health Management. When we convert to semesters, we will have two different undergraduate majors: one called Plant Pathology and another joint major with the Department of Entomology called Plant Health Management. The Plant Pathology major will be aimed at students wishing to pursue graduate school or an area of higher study following their Bachelor's degree. The major will consist of 121 credit hours, including general education, minor, internship, and major courses. The main differences between the two proposed majors are that the Major in Plant Pathology requires Molecular Genetics 500, Microbiology 509, Organic Chemistry 231 and Plant Biology/Physiology 436. No Entomology requirement is proposed. A list of electives includes the courses we would recommend a student majoring in Plant Pathology take. Our students will be highly advised by both faculty and staff. We will help guide the students to develop a four-year plan that fits them and their future goals. Once completed, the student will receive a Bachelor's of Science in Agriculture.

As part of the development of this program proposal, we sought the assistance of our existing undergraduate and graduate students. On December 4, 2009, a group of students, both in the current major and outside of the major, met to discuss the conversion and their thoughts on how our courses can be best taught in the semester system. We met again with just the students in the major on June 9, 2010 where they were presented with the proposed curriculum and asked to review it along with faculty. We believe the input received from these meetings was vital to the success of the Major in Plant Pathology.

The faculty in the Department of Plant Pathology faculty, staff, and students met on March 6, 2010 in a retreat specifically designed to discuss the transition to semesters. At the retreat, the undergraduate

program's curriculum was determined. The faculty since has reviewed the curricula, learning outcomes, rationale, assessment plan, transition policy, semester course list, and curriculum maps. A vote was conducted by the faculty on Thursday, June 17, 2010. The vote for the proposal was unanimously affirmative (13/13). Subsequently, we forwarded the proposal to the College of Food, Agricultural, and Environmental Science for review.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Mitchell', written in a cursive style.

Thomas Mitchell
Academic Affairs Committee Chair
Department of Plant Pathology
Assistant Professor
Ohio State University
Columbus, OH

Major in Plant Pathology

Rationale for proposed program change and description of how the changes will benefit students and enhance program quality.

While the conversion to semesters provided the initial impetus to conduct a wholesale evaluation of our undergraduate major and course offerings, we used the process to make significant changes in components of the major and infuse a substantial amount of flexibility to meet the needs of our student clientele. The only previous/quarter system major in the department was a Major in Plant Health Management. That major attracted two distinct cohorts of students; a group destined for advanced studies in plant pathology and another interested in becoming practitioners of plant health. While the previous major adequately served both populations, we feel as though it did not provide the flexibility to accommodate the career goals of both cohorts. To resolve this dilemma, we have elected to create a two major system. For students destined for graduate studies, we propose the establishment of a Major in Plant Pathology, and for the practitioner focused students, we propose a significantly revised Major in Plant Health Management that will be offered jointly between the Departments of Plant Pathology and Entomology.

The Major in Plant Pathology will retain the training in basic plant pathology concepts, key groups of microbial pathogens, and disease management. However, we now have explicit requirements for General Genetics, Basic and Practical Microbiology, Introductory Plant Physiology, and Introductory Organic Chemistry. Additionally we are requiring two biology courses and two chemistry courses while removing the previous physics and entomology requirements. In general, modern plant pathology research is becoming more and more grounded in a thorough understanding of plant-pathogen interactions at the molecular level and this necessitates a strong foundation in plant science, genetics, and microbiology to cope with diseases from the agricultural field to the forest.

To provide large flexibility and concurrently incorporate additional advanced science courses, we significantly expanded the major electives to include biochemistry, chemistry, entomology, horticulture and crop science, microbiology, molecular biology, plant biology, and soil sciences. We also have added to the major electives all of the 600 level (5000-level in semesters) Plant Pathology courses to provide students with an opportunity to move into graduate level course work as they near the end of their undergraduate studies and matriculate into graduate school. This flexibility will be an asset as students begin focusing on the areas of most interest to them for graduate school at OSU and elsewhere.

The writing requirements in the major will be covered by PLNTPTH 5603, the semester version of our current PLNTPTH 603 (Plant Disease Management), which is a third writing course. Another writing course (currently PLNTPTH 597 - Societal Issues: Pesticides, Alternatives, and the Environment) will also be available as a Contemporary Issues course.

Plant Pathology
Semester Course
List

Quarter Course Number	Semester Course Number	Course Title in Semester	Instructor(s)	Quarter Credit Hours	Semester Credit Hours	Number of Weeks	Semester Offered
	2000 - GEC	Molds, Mushrooms and Man	Tom Mitchell		3	14 weeks	Spring
201D	2001	Sick Plants and a Hungry World	Sarah Ellis	3	2	14 weeks	Autumn, Spring
401	3001	General Plant Pathology Lecture	Sarah Ellis	5	2	14 weeks	Autumn
	3002	General Plant Pathology Lab	Sarah Ellis		2	14 weeks	Autumn
395	3195	Plant Health Science Forum	Monica Lewandowski	1	1	14 weeks	May
597	3597	Societal Issues: Pesticides, Alternatives, and the Environment	Monica Lewandowski	5	3	14 weeks	Autumn, Spring
489	4191	Internship Experiences in Plant Health Management	Monica Lewandowski	1-5	1-6	14 weeks	Autumn, Spring, Summer
	4683	Research with Distinction	Faculty		1-6	14 weeks	Autumn, Spring, Summer
H683	4683 (H)	Research with Distinction	Faculty	1-10	1-6	14 weeks	Autumn, Spring, Summer
455	4550	Bioterrorism: An Overview	Michael Boehm	5	2	7 weeks	Spring
	4998	Undergraduate Research	Faculty		1-6	14 weeks	Autumn, Spring, Summer
600.01	5010	Phytobacteriology	Brian McSpadden-Gardener	3	2	7 weeks	Spring
600.02	5020	Introductory Plant Virology	Feng Qu	3	2	7 weeks	Spring
636	5030	Plant Nematology	Chris Taylor	3	2	7 weeks	Spring

660	5040	Science of Fungi: Mycology Lecture	Tom Mitchell	5	3	14 weeks	Autumn
	5041	Science of Fungi: Mycology Lab	Tom Mitchell		1	14 weeks	Autumn
610	5110	Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments	Enrico Bonello/Dan Herms	4	3	14 weeks	Spring
501	5120	Diseases of Ornamentals	Dennis Lewandowski	5	2	7 weeks	Spring
612/613	5130	Turf Diseases and Integrated Turf Health Management	Joe Rimelspach	3-4	3	14 weeks	Autumn
614	5140	Diseases of Field Crops	Anne Dorrance and Pierce Paul	3	2	14 weeks	Spring
615	5150	Fruit and Vegetable Diseases	Michael Ellis and Sally Miller	3	2	7 weeks	Spring
603	5603	Plant Disease Management	Michael Ellis and Larry Madden	5	3	14 weeks	Autumn
	5604	Capstone Course: Problem-Based Studies in Plant Health	Faculty from Plant Path and Entomology		2	14 weeks	Spring
685	5685	Plant Disease Diagnosis	Sally Miller	3	2	3 weeks May/Summer	Summer, May
401	6001	Advanced Plant Pathology	Sarah Ellis		3	14 weeks	Autumn
693	6193	Individual Studies	Faculty	1-5	1-6	14 weeks	Autumn, Spring, Summer
702	7002	Plant Disease Epidemiology	Larry Madden	4	3	14 weeks	Spring
703	7003	Agricultural Genomics: Principles and Applications	Guo-Liang Wang and Eric Stockinger	3	3	14 weeks	Spring
830	8300	Current Topics in Plant Pathology	Bonello, Mitchell, McSpadden-Gardener, Wang	1-2	1-2	14 weeks	Autumn, Spring, Summer
602/841/842/843	8400	Molecular Bases of Plant Host-Microbe Interactions	Graham/ Bonello/ McSpadden-Gardener/Redinbaugh/Taylor/ Mitchell/Wang	1-3	3	14 weeks	Spring

995	8899	Plant Pathology Seminar	Various Instructors	1	1	14 weeks	Autumn, Spring
901	8901	Mentored Teaching in Plant Pathology	Various Instructors	1-5	1-3	14 weeks	Autumn, Spring, Summer
902	8902	Mentored Extension/Outreach Teaching in Plant Pathology	Michael Ellis	1-3	1	14 weeks	Autumn, Spring, Summer
999	8999	Plant Pathology Research	Various Instructors	1-100	1-100	14 weeks	Autumn, Spring, Summer

*No longer offering: 294, 300, 602, 604, 613, 655, 694, 704, 832, 838, 839, 841, 842, 843. Either doing away with or incorporating course into other semester courses.

Major in Plant Pathology

Semester Curriculum Advising Sheet

**Proposed Curriculum for
Major in Plant Pathology**

All students must complete two Global Issues courses in the GE. This requirement is the successor to the diamond/asterisk requirement. All students must complete a Social Diversity requirement in the GE which can be done by completing Rural Sociology 105 or Sociology 101.

General Education Curriculum: CFAES

Course	Credit Hours
Survey: (Choose one: FAES 100 or USAS 100, etc.)	1
Writing Level 1: (ENG 110)	3
Writing Level 2: (Choose from approved CFAES GE list)	3
Speech/Communications: (Choose one: AGRCOMM 390 or COMM 321)	3
Math: (Choose one: MATH 1148 or 1150)	4-5
Data Analysis: (Choose one: AEDECON 205, AEE 387, HCS 260, ENR 222 or STAT 145)	3
Biological Science: (Choose one: BIO 1101, BIO 1113, BIO H1115, ENTMLGY 1101, H&CS 2201, or PLNTBIO 101, (with lab))	5
Physical Science: (Choose one: CHEM 121 or CHEM H201 (with lab))	5
Additional Science: (Choose one: BIO 1114, ENTMLGY 2101, PLNTBIO 102, H&CS 2202, or PLNTBIO 300)	3-5
Open Option #1: Physical Science Second Course in Sequence (Choose one: CHEM 122)	3-5
Social Science 1: (Choose one: RURALSOC 105 or SOCIOL 101)	3
Social Science 2: (Choose one: AEDECON 200 or ECON 200)	3
Historical Study: (Choose from approved CFAES GE list)	3
Culture and Ideas or Historical Study: (Choose from approved CFAES GE list)	3
Literature: (Choose from approved CFAES GE list)	3
Art: (Choose from approved CFAES GE list)	3
Contemporary Issues: (Choose from approved CFAES GE list)	3
Minor: (Student chooses minor. See minor list. Cannot be Plant Pathology)	12-15
Major: (See below for major requirements and electives)	36
Internship: (PLNTPTH 4191)	2
Electives: (Choose courses outside of major and minor. See University Course Bulletin)	10-17
Total Credit Hours for a B.S. in Agriculture, Plant Pathology	~121

Proposed Major in Plant Pathology Curriculum

Course	Credit Hours
<u>Required Courses (26-27 credit hours):</u>	
MOLGEN 500: General Genetics	4?
MICROBIOL 509: Basic and Practical Microbiology	4?
ENR 300.01 (lecture) and ENR 300.02 (lab): Soil Science	4?
PLNTPTH 5603: Plant Disease Management	3
PLNTPTH/ENTMLGY 5604: Capstone Course: Problem-Based Studies in Plant Health	2
PLNTBIO 436: Intro Plant Physiology	3?
CHEM 231: Introductory Organic Chemistry	3?
<u>Also select one of the following plant pathology options:</u>	
PLNTPTH 3001: General Plant Pathology- lecture AND PLNTPTH 3002: General Plant Pathology- lab	4
PLNTPTH 6001: Advanced Plant Pathology	3
<u>Select two of the following (4-6 credit hours):</u>	
PLNTPTH 5010: Phytobacteriology	2
PLNTPTH 5020: Virology	2
PLNTPTH 5030: Nematology	2
PLNTPTH 5040 and 5041: Science of Fungi: Mycology Lecture and Lab	4
PLNTPTH 5110/ENTMLGY 5110: Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments	3
PLNTPTH 5120: Diseases of Ornamentals	2
PLNTPTH 5130: Turf Diseases and Integrated Turf Health Management	3
PLNTPTH 5140: Diseases of Field Crops	2
PLNTPTH 5150: Fruit and Vegetable Diseases	2
PLNTPTH 5685: Plant Disease Diagnosis	2
<u>Electives: Select a minimum of one course from the following to fulfill major (4-6 credit hours):</u>	
BIOCHEM 211: Elements of Biochemistry	2?
CHEM 123: General Chemistry	3?
CHEM 231 or 251: Introductory Organic Chemistry	3?
CHEM 245: Organic Chemistry	3?
ENR 540: Urban and Sports Turf Soils	2?
ENR 580.01: Soil Fertility and Fertilizers	3?
ENTMLGY 3000: General Entomology	3
ENTMLGY 4600: Introductory Insect Science	1
ENTMLGY 4601: General Insect Pest Management	2
ENTMLGY 4602: Landscape Entomology	2
ENTMLGY 4603: Agricultural Entomology	2
ENTMLGY 4604: Urban Entomology: Structural and Nuisance Pests	2
ENTMLGY 4606: Forensic Entomology	2
ENTMLGY 4607: Veterinary Entomology	2
H&CS 4325: Plant Genetics	3
H&CS 4411: Grain, Oilseed, and Fiber Crops	3
H&CS 4412: Forages, Grasslands, and Prairies	3
H&CS 5422: Principles of Weed Ecology and Management	4
H&CS 5450: Vegetable Production	3
H&CS 5460: Fruit Crop Physiology and Production	3
H&CS 5621: Crop Physiology	3
MICROBIOL 520: General Microbiology 1	3?
MICROBIOL 581: Microbial Genetics	4?
PLNTBIO 643: Plant Anatomy	3?
PLNTPTH 5010: Phytobacteriology (If not taken above)	2
PLNTPTH 5020: Virology (If not taken above)	2
PLNTPTH 5030: Nematology (If not taken above)	2
PLNTPTH 5040 and 5041: Science of Fungi: Mycology Lecture and Lab (If not taken above)	4
PLNTPTH 5110/ENTMLGY 5110: Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments (If not taken above)	3
PLNTPTH 5120: Diseases of Ornamentals (If not taken above)	2
PLNTPTH 5130: Turfgrass Diseases and Turf Health Management (If not taken above)	3
PLNTPTH 5140: Diseases of Field Crops (If not taken above)	2
PLNTPTH 5150: Fruit and Vegetable Diseases (If not taken above)	2
PLNTPTH 5685: Plant Disease Diagnosis (If not taken above)	2
TOTAL	Need at least 36 credit hours to fulfill major requirements

Major in Plant Pathology

Semester 4-Year Plan

<u>Year 1</u>	<u>Fall Semester</u>	<u>Credit Hours</u>	<u>Spring Semester</u>	<u>Credit Hours</u>
	Survey FAES 100	1	ENGLISH 110	3
	RURALSOC 105 or SOC 101	3	CHEM 121	5
	BIO 1113	5	BIO 1114	5
	MATH 1148 or 1150	4-5	ART	3
			Free Elective	2
	Total	13	Total	18
			31 credit hours	
<u>Year 2</u>	<u>Fall Semester</u>	<u>Credit Hours</u>	<u>Spring Semester</u>	<u>Credit Hours</u>
	Data Analysis	3	PLNTBIO 436	3
	AEDECON 200 or ECON 200	3	HISTORY	3
	CHEM 122	5	MICROBIOL 509	4
	Second Writing	3	Major Elective	3
	Free Elective	2	Free Elective	2
	Total	16	Total	15
			31 credit hours	
<u>Year 3</u>	<u>Fall Semester</u>	<u>Credit Hours</u>	<u>Spring Semester</u>	<u>Credit Hours</u>
	LITERATURE	3	AGCOMM 390 or COMM 321	3
	ENR 300.01 & 300.02	4	Culture and Ideas	3
	Minor	3	Minor	3
	PLNTPTH 3001, 3002	4	CHEM 231	3
	Free Elective	2	Free Elective	2
	Total	16	Total	14
			30 credit hours	

<u>Year 4</u>	<u>Fall Semester</u>	<u>Credit Hours</u>	<u>Spring Semester</u>	<u>Credit Hours</u>
	MOL GEN 500	3	PLNTPTH 5603	3
	Contemp. Issues	3	PLNTPTH/ENTMLGY 5604Capstone2	
	Minor	3	Minor	3
	Major Elective	3	Free Elective	5
	Free Elective	2		
	Internship	2		
	Total	16	Total	13

29 credit hours

TOTAL FOR THE DEGREE: 121 credit hours

Transition Policy

Major in Plant Pathology

A student entering the Major in Plant Pathology program in **Autumn of 2010** will spend two years in the quarter system and the remainder in the semester system. A suggestion for courses a typical student will take each quarter/semester is below.

Freshmen Enrolling in Autumn 2010

There will be some key changes from the quarter system to the new semester system with two majors in the department: a major in Plant Pathology, and a joint major in Plant Health Management (Plant Pathology and Entomology). In the current system we only have a major in Plant Health Management. A student starting in Autumn of 2010 will decide if they want to major in Plant Pathology or Plant Health Management. If the student chooses a major in Plant Pathology they will follow the map below.

When putting this policy together the curriculum of the semester system was used. This was done so a student does not take a course they will not need for graduation in the semester system. We also wanted the student to get a majority of the required courses completed in the quarter system to allow for flexibility with minor, major, and free electives in the semester system since we are still uncertain when certain courses will be offered. Under the quarter system (Autumn 2010-Spring 2012) the student will complete their required general education courses (Survey, Chemistry sequence, Biology sequence, Math, Data Analysis, Writing Levels 1 and 2, Social Sciences 1 and 2, History, Cultures and Ideas, Literature, Art) (22 courses total). They will also be advised to complete the following required courses for the major: Molecular Genetics, Microbiology, Soil Science, Organic Chemistry and Introductory Plant Pathology. Remaining course requirements will be completed in the semester system. Following the conversion to semesters in the Summer of 2012, students will have maximum flexibility in their schedule. Students will need to fulfill course requirements for the Minor, Major Electives, Plant Physiology, Communications/Speech, Contemporary Issues, Internship, Plant Disease Management, and a majority of the Free Electives (~17 courses total) in the semester system.

After converting the quarter credit hours to the anticipated semesters credit hours, students will finish on time with the correct number of credit hours to graduate.

Course Map for Students Entering Autumn 2010
 Q: Number of credit hours in the quarter system
 S: Number of credit hours in the semester system

Year	Quarter/Semester	Courses
1	Autumn 2010	FAES 100 Survey (1Q) (1S) BIO 113 (5Q) (5S) RURALSOC 105/SOC 101 (5Q) (3S)
1	Winter 2011	MATH 148 (4Q) (4S) CHEM 121 (5Q) (5S) BIO 114 (5Q) (5S) ENG 110 (5Q) (3S)
1	Spring 2011	Data Analysis (5Q) (3S) ART (5Q) (3S) AEDECON 200/ECON 200 (5Q) (3S) CHEM 122 (5Q) (3S)
2	Summer 2011	
2	Autumn 2011	PLNTPTH 401 (5Q) (4S) LITERATURE (5Q) (3S) ENR 300.01/300.02 (5Q) (4S)
2	Winter 2012	Culture and Ideas (5Q) (3S) Writing level 2 (5Q) (3S) HISTORY (5Q) (3S) Free Elective (2Q) (2S)
2	Spring 2012	MICROBIO 509 (5Q) (4S) CHEM 231 (5Q) (3S) Major Elective (3Q) (2S) Free Elective (5Q) (3S)
Semester System Begins		
3	May/Summer 2012	
3	Autumn 2012	Major Elective (3S) Minor (3S) Free Elective (3S)
3	Spring 2013	AGCOMM 390/COMM 321 (3S) Minor (3S) Major Elective (3S) Free Elective (3S)
4	May/Summer 2013	Internship (2S)
4	Autumn 2013	MOL GEN 500 (4S) Contemporary Issues (3S) PLNTPTH 5603 (3S) Minor (3S) Free Elective (3S)
4	Spring 2013	PLNTBIO 436 (3S) PLNTPTH/ENTMLGY 5604 Capstone (2S) Minor (3S) Free Elective (3S)

(CONTINUED-TRANSITION PLAN FOR MAJOR IN PLANT PATHOLOGY)

Freshmen Enrolling in Autumn 2011

A student entering the Major in Plant Pathology program in **Autumn of 2011** will spend one year in the quarter system and the remainder in the semester system. Suggested course maps are included below.

A student entering in Autumn of 2011 will be able to select a major in Plant Pathology or Plant Health Management. If they choose Plant Pathology they will follow the course map below.

The map is very similar to the semester curriculum map or the map for students enrolling in Autumn 2012. There are a few differences in general education courses, but overall the plans are similar. The student will be advised to take all general education courses their first year (in quarters) (~10 courses). The general education courses will help prepare them for courses they will need in the major. Beginning Autumn of 2012 they will start their first required course for their major and take the remaining courses to fill the requirements to graduate.

By converting the quarter credit hours to the anticipated semesters credit hours, the student will finish on time with the correct number of credit hours to graduate.

Course Map for Students Entering Autumn 2011
 Q: Number of credit hours in the quarter system
 S: Number of credit hours in the semester system

Year	Quarter/Semester	Courses
1	Autumn 2011	FAES 100 Survey (1Q) (1S) BIO 113 (5Q) (5S) RURALSOC 105/SOC 101 (5Q) (3S)
1	Winter 2012	MATH 148 (4Q) (4S) CHEM 121 (5Q) (5S) BIO 114 (5Q) (5S) ENG 110 (5Q) (3S)
1	Spring 2012	Data Analysis (5Q) (3S) AEDECON 200/ECON 200 (5Q) (3S) CHEM 122 (5Q) (3S)
Semester System Begins		
2	May/Summer 2012	
2	Autumn 2012	PLNTPTH 3001/3002 (4S) Writing level 2 (3S) ART (3S) Major Elective (3S) Free Elective (2S)
2	Spring 2013	HISTORY (3S) MICROBIO 509 (4S) Major Elective (2S) Free Elective (3S)
3	May/Summer 2013	
3	Autumn 2013	ENR 300.01/300.02 (4S) LITERATURE (3S) CHEM 231 (3S) Minor (3S) Free Elective (3S)
3	Spring 2014	AGCOMM 390/COMM 321 (3S) PLNTPTH 5603 (3S) Culture and Ideas (3S) Minor (3S) Free Elective (3S)
4	May/Summer 2014	Internship (2S)
4	Autumn 2014	MOL GEN 500 (4S) Contemporary Issues (3S) Minor (3S) Major Elective (3S) Free Elective (3S)
4	Spring 2015	PLNTBIO 436 (3S) PLNTPTH/ENTMLGY 5604 Capstone (2S) Minor (3S) Free Elective (4S)

Major in Plant Pathology

Learning Outcomes

AREAS	Upon successful completion of the Plant Pathology major, students should:
Foundational Knowledge	<i>Global Perspectives</i>
	1. Appreciate disease threats to the food supply and environment and how these events impact global and societal issues;
	2. Understand the role of federal, research, and regulatory scientific institutions and how policy considerations impact management decisions;
	<i>Plant Pathology</i>
	3. Describe biotic and abiotic causes of plant disease, the nature of plant-microbe interactions, and factors influencing disease development as related to the Disease Triangle;
Skills	<i>Problem Solving and Communication</i>
	4. Utilize the primary informational resources in plant health and pest management;
	5. Communicate in oral and written formats the tenets of plant pathology and basic plant health;
	6. Demonstrate critical thinking and problem solving skills related to plant health investigations;
	<i>Plant Pathology</i>
	7. Apply classical and molecular laboratory techniques for the identification, manipulation, and classification of plant-associated microbes;
	8. Design and implement environmentally-sound disease management strategies and methods used in controlling plant diseases;
Professionalism	9. Formulate judgments and demonstrate professional behavior consistent with the highest ethical and moral standards.

Assessment Plan
Major in Plant Pathology

Learning Outcome-Course Matrix

Program Learning Outcomes/Goals		Course that achieves this goal at a beginning level	Course that achieves this goal at an intermediate level	Course that achieves this goal at an advanced level
Foundational Knowledge	Global Perspectives	3195 (Plant Hlth. Forum), 4683 (Research Distinction), 4683H (Honors Project), 4998 (UG Research), 5120 (Dis. of Ornamentals), 5140 (Dis. of Field Crops), 5685 (Dis. Diagnosis), 6193 (Individual Stud.)	2000 (Molds, Mushrooms, Man), 2001 (Social Issues), 4550 (Bioterrorism), 5010 (Bacteriology), 5020 (Virology), 5030 (Nematology), 597 (Cont. Issues)	3001 (Gen. Plant Path), 3597 (Cont. Issues), 5040 (Mycology Lecture), 5041 (Mycology Lab), 5110 (Forest Health Protect.)
	LO#1: Appreciate disease threats to the food supply and environment and how these events impact global and societal issues; LO#2: Understand the role of federal, research, and regulatory scientific institutions and how policy considerations impact management decisions;	2001 (Social Issues), 3195 (Plant Hlth. Forum), 3597 (Cont. Issues), 4550 (Bioterrorism), 5140 (Dis. of Field Crops), 5603 (Dis. Mgt.)	3001 (Gen. Plant Path), 3002 (Gen. Plant Path Lab)	5110 (Forest Health Protect.)
Skills	Plant Pathology	2001 (Social Issues), 4550 (Bioterrorism), 5020 (Virology), 5140 (Dis. Of Field Crops)	5030 (Nematology), 5120 (Dis. of Ornamentals), 5150 (Fruit and Veg. Dis.), 5603 (Dis. Mgt.), 5685 (Dis. Diagnosis)	3001 (Gen. Plant Path), 3002 (Gen. Plant Path Lab), 5010 (Bacteriology), 5040 (Mycology Lecture), 5041 (Mycology Lab), 5110 (Forest Health Protect.), 5130 (Turf Dis.)
	Problem Solving and Communication	LO#3: Describe biotic and abiotic causes of plant disease, the nature of plant-microbe interactions, and factors influencing disease development as related to the Disease Triangle;		

	<p>LO#4: Utilize the primary informational resources in plant health and pest management;</p>	<p>2001 (Social Issues), 3001 (Gen. Plant Path), 3002 (Gen. Plant Path Lab), 3195 (Plant Hlth. Forum), 3597 (Cont. Issues), 5140 (Dis. of Field Crops), 6193 (Individual Stud.)</p>	<p>4683 (Research Distinction), 4683H (Honors Project), 4998 (UG Research), 5010 (Bacteriology), 5030 (Nematology), 5110 (Forest Health Protect.), 5120 (Dis. of Ornamentals), 5150 (Fruit and Veg Dis.), 5603 (Dis. Mgt.), 5685 (Dis. Diagnosis)</p>	<p>4191 (Internship), 5130 (Turf Dis.), 5604 (Capstone)</p>
<p>LO#5: Communicate in oral and written formats the tenets of plant pathology and basic plant health;</p>	<p>2000 (Molds, Mushrooms, Man), 2001 (Social Issues), 3001 (Gen. Plant Path), 3002 (Gen. Plant Path Lab), 3597 (Cont. Issues), 5130 (Turf Dis.), 5140 (Dis. of Field Crops), 6193 (Individual Stud.)</p>	<p>4191 (Internship), 4683 (Research Distinction), 4683H (Honors Project), 4998 (UG Research), 5010 (Bacteriology), 5030 (Nematology), 5040 (Mycology Lecture), 5110 (Forest Health Protect.), 5120 (Dis. of Ornamentals), 5603 (Dis. Mgt.), 5685 (Dis. Diagnosis)</p>	<p>5604 (Capstone)</p>	
<p>LO#6: Demonstrate critical thinking and problem solving skills related to plant health investigations;</p>	<p>3001 (Gen. Plant Path), 3002 (Gen. Plant Path Lab), 3597 (Cont. Issues), 4550 (Bioterrorism), 5140 (Dis. of Field Crops), 6193 (Individual Stud.)</p>	<p>4683 (Research Distinction), 4683H (Honors Project), 4998 (UG Research), 5030 (Nematology), 5040 (Mycology Lecture), 5041 (Mycology Lab), 5120 (Dis. of Ornamentals), 5130 (Turf Dis.), 5150 (Fruit and Veg Dis.), 5685 (Dis. Diagnosis)</p>	<p>4191 (Internship), 5010 (Bacteriology), 5110 (Forest Health Protect.), 5604 (Capstone)</p>	
<p>Plant Pathology LO#7: Apply classical and molecular laboratory techniques for the identification, manipulation, and classification of plant-associated microbes;</p>	<p>5020 (Virology), 5110 (Forest Health Protect.)</p>	<p>5010 (Bacteriology), 5030 (Nematology), 5130 (Turf Dis.) Microbiology 509</p>	<p>5040 (Mycology Lecture), 5041 (Mycology Lab), 5685 (Dis. Diagnosis)</p>	

	<p>LO#8: Design and implement environmentally-sound disease management strategies and methods used in controlling plant diseases; and</p>	<p>3002 (Gen. Plant Path Lab), 5010 (Bacteriology), 5110 (Forest Health Protect.), 5140 (Fruit and Veg Dis.)</p>	<p>5030 (Nematology), 5120 (Dis. of Ornamentals), 5130 (Turf Dis.), 5150 (Fruit and Veg Dis.)</p>	<p>5604 (Capstone)</p>
<p>Professionalism</p>	<p>LO#9: Formulate judgments and demonstrate professional behavior consistent with the highest ethical and moral standards.</p>	<p>5010 (Bacteriology), 5020 (Virology), 5140 (Dis. of Field Crops)</p>	<p>4550 (Bioterrorism), 5030 (Nematology), 5120 (Dis. of Ornamentals), 5685 (Dis. Diagnosis)</p>	<p>4191 (Internship), 5110 (Forest Health Protect.), 5604 (Capstone)</p>

I. MEANS TO EVALUATE ACHIEVEMENT OF PROGRAM GOALS

A. Evaluation of students

1. Classroom-based assessments - Learning Outcomes

Evaluation of LO#1-9 will be assessed through classroom examinations, quizzes, laboratory reports, written and oral assignments. The required plant pathology classes for the major, PLNTPTH 3001/3001 or 6001/6002 (General Plant Pathology Lecture and Laboratory), and PLNTPTH 5603 (Plant Disease Management), cover a majority of the Learning Outcomes. PLNTPTH 5603 (Plant Disease Management) has traditionally been the program's capstone course and assessment of communication skills has been incorporated into this course. Learning outcomes will also be covered and reinforced in additional required courses: Biological Sciences requirement (2 semesters); Physical Sciences requirement (2 semesters); MOLGEN 500 (General Genetics); MICROBIOL 509 (General Microbiology); ENR 300.01 and 300.01 (Soil Science); and PLNTBIO 436 (Plant Physiology). In these and elective courses, we expect that classroom examinations, quizzes, laboratory reports, and written and oral assignments will be for assessment.

2. Internship and Honors project

The internship requirement, including a post internship / project presentation, provides an opportunity to evaluate LO #4,5,6 and 9, and depending on the project topic, may also include LO #3,7, and 8. For Honors students, the honors project, thesis and examination provide an more in-depth opportunity to evaluate LO #4,5,6 and 9, and depending on the project topic, LO #3,7, and 8.

B. Evaluation of the courses

1. Student feedback

Student feedback will be collected through the Student Evaluation of Instruction and narrative evaluations administered towards the end of each term in each course. Narrative evaluations, which are anonymous, ask for student feedback on the course content, delivery method and the effectiveness of the instructor. Student feedback is also sought informally through discussions with students.

2. Instructor feedback

Department chair meets with faculty and instructors to discuss course outcomes, teaching methods and related issues. For faculty, this is part of the annual program review process.

3. Staggered course reviews

On a staggered rolling schedule, each course will be evaluated by the Department of Plant Pathology Academic Affairs Committee with regard to content, quality of instruction, and course structure. Each course will receive a review once every 4 years. The committee will consider student written reviews, faculty self assessment of course, and student interviews. Specific attention will be given to how each course accomplishes

the learning objectives they are prescribed (see table above). Courses that do not cover the expected learning objectives will be asked to alter the curriculum to do so, or work with the committee to insure that the objective is covered in another required course.

C. Evaluation of the program and curriculum

1. Several types of data are collected and monitored annually and reported to CFAES and other institutions. These data are used to guide program changes.

Total Enrollment (Plant Health Management Majors), Career Placement at Graduation and current employment, Honors Enrollment, College / University / Regional and National Recognition, Domestic Diversity Enrollment – Gender, Domestic Diversity Enrollment – Minorities, Retention (freshman to sophomore including 4 and 6-yr Graduation Rates, Credit Hours Generated (course enrollments), CFAES Undergraduate Research Forum - Denman Undergraduate Research Forum, SEI department mean

Other data collected and reported to CFAES: Total Number of Freshmen Applicants, Incoming Freshmen, Incoming Transfer Students (total), Incoming ATI Transitioning Students, Study Abroad, CFAES/SENR Ambassadors, AZP Members, Towers Honorary CFAES Top 20 Seniors, OSU Outstanding Seniors

2. Alumni Review

Following successful completion of their degree, each student spends time with the Department Chair to discuss the program as whole, individual courses, and the quality of education. These discussions are key points of assessment that are used to guide future development of the program. Following the exit interview, the Department Chair will either make incremental changes or charge the Academic Affairs Committee to research issues and develop an ongoing plan for program enhancement.

Within four years of graduation, the graduate coordinator will send alumnus a questionnaire. The questionnaire will assess how the graduate feels the program enabled them to obtain a position in the field, prepared them for their careers, and changes that should be made. Results of the questionnaire will be shared with the Department Chair and the Academic Affairs Committee to identify key strengths to keep and challenges to address.

II. USES OF THE ASSESSMENT DATA

A. Students

Instructors assess student performance on the classroom assignments, provide feedback and make suggestions for improvement. Additional assistance and resources are also made available to students as appropriate. Students regularly meet with their advisor. The faculty advisor conducts an exit interview with each graduate to gather feedback on the program. Guidance and feedback are also provided to students during their internship experiences. Honors students work with a faculty member and are advised throughout the course of their project on a one-on-one basis.

B. Courses

1. Student feedback

Each instructor uses the student evaluations/narrative comments to self assess course content and delivery methods, and to guide changes. Areas of strength and weakness are identified and adjustments are made accordingly. The department chair monitors evaluations and course enrollment trends and engages faculty in discussion about the course.

2. Instructor feedback

All faculty and instructors in the department are evaluated. For each P&T eligible faculty member, the department assigns a Teaching Evaluation (TE) Committee, composed of two faculty members of senior rank. Professors do not have a TE Committee but the department continually evaluates graduate student advising and Extension-Outreach teaching through informal discussions with graduate students.

A formal evaluation process for lecturers is being developed. In recent years, lecturers have been utilized more regularly to teach general education courses in the department. In 2009, the department chair began to implement a more formal evaluation of instructors, which include one-on-one meetings with each instructor. Feedback from faculty and the instructors was sought and will be incorporated into the evaluation process.

3. Evaluation of course enrollment

Department Chair and the Departmental Academic Affairs Committee make 4-year rolling assessments based on changes and trends in course enrollment. Changes can include discontinuing courses with low enrollment, adding course sections to accommodate growing enrollment, or adding courses based on student interest and need to cover learning outcomes.

C. Program/Curriculum

The Plant Pathology Academic Affairs Committee works with the Department Chair and the faculty to assess the program, including overall student performance, enrollment, time to degree, program quality and other aspects. The committee also provides updates and

summaries at quarterly department meetings. Issues that require department input are brought before the faculty and senior staff at quarterly meetings. Recruitment strategies and plans are updated annually. Undergraduate Program faculty and staff frequently communicate with Plant Pathology majors on quality of the program and related issues.