

Fiscal Unit/Academic Org	Entomology - D1130
Administering College/Academic Group	Food, Agric & Environ Science
Co-administering College/Academic Group	
Semester Conversion Designation	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name	Entomology Minor
Proposed Program/Plan Name	Entomology Undergraduate Minor
Program/Plan Code Abbreviation	ENTOMOL-MN
Current Degree Title	

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		20	13.3	12	1.3
Required credit hours offered by the unit	Minimum	20	13.3	12	1.3
	Maximum	25	16.7	13	3.7
Required credit hours offered outside of the unit	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0

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**
- To provide a fundamental knowledge and insight into the role of insects and their relatives in human affairs and in the environment.

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? No

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

- Entmlgy_Minor.pdf
(Program Proposal. Owner: Needham, Glen Ray)
- ProgramProposalEntomologyUG_Minor.pdf
(Program Proposal. Owner: Welty, Celeste)

Comments

- 1) The current program name should be ENTMLGY-MN (not ENTOMOL-MN) but this choice does not appear in the name box.
2) the doc 'Entmlgy_Minor.pdf' is outdated and needs to be removed but we have been unable to do this. *(by Welty, Celeste on 06/14/2011 08:44 AM)*
- Feedback will be provided via e-mail by J Fredal (Sciences CCI Subcommittee chair). *(by Vankeerbergen, Bernadette Chantal on 02/22/2011 01:35 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Welty, Celeste	02/04/2011 03:05 PM	Submitted for Approval
Approved	Fisher, Susan Warwick	02/04/2011 04:27 PM	Unit Approval
Revision Requested	Stokoe, Laurie Anne	02/08/2011 09:09 AM	College Approval
Submitted	Welty, Celeste	02/08/2011 09:47 AM	Submitted for Approval
Approved	Fisher, Susan Warwick	02/08/2011 10:46 AM	Unit Approval
Approved	Stokoe, Laurie Anne	02/08/2011 02:44 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	02/22/2011 01:35 PM	ASCCAO Approval
Submitted	Welty, Celeste	06/14/2011 08:45 AM	Submitted for Approval
Approved	Fisher, Susan Warwick	06/14/2011 11:36 AM	Unit Approval
Approved	Pfister, Jill Ann	06/15/2011 08:32 AM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	06/15/2011 08:32 AM	ASCCAO Approval

Program Proposal

Minor in Entomology

The Department of Entomology

College of Food, Agricultural and
Environmental Sciences

Spring 2011



Department of Entomology

College of Food, Agriculture and Environmental Sciences
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May 2011

OSU Office of Academic Affairs
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To whom it may concern:

This letter summarizes the status of our undergraduate minor program in Entomology. Our undergraduate program has three elements: the B.S. in Agriculture with a major in entomology, the minor in entomology, and entomology service courses for students in other majors such as Plant Health Management and Horticulture and Crop Science.

The objectives of a minor in Entomology are to provide insight into the role of insects in human affairs and in the environment. Students majoring in fields associated with food production will be interested in a minor in Entomology because of the critical role insects play as direct competitors with humans. Students in CFAES should consider a minor in entomology, especially those in animal sciences, pre-veterinary medicine, veterinary public health, crop science, turfgrass science, landscape horticulture, agricultural and extension education, and environmental science. A minor in entomology is also complementary to majors in evolution and ecology, zoology, and biology.

We developed a set of seven learning objectives for our undergraduate program, which we have used in developing our requirements and course plans and which have been key in developing a new capstone course. We are pleased that our entomology major and minor will benefit from improvements in a number of our undergraduate course offerings and in the development of an integrated curriculum.

Summary of changes in the undergraduate minor:

The entomology minor is undergoing some change related both to the semester conversion and to our move in 2010 from the College of Biological Sciences (CBS) to the College of Food, Agricultural and Environmental Sciences (CFAES). The entomology curriculum committee reviewed the major and minor programs in Entomology between November 2009 and February 2010. A summary of this review was presented to the entomology faculty and discussed in depth at a retreat on 10-11 March 2010. Details of the program were further developed by the curriculum committee between March and November 2010.

In both the quarter version of the entomology minor and the proposed semester version of the entomology minor, there is one required course and a choice of the remaining courses to meet the minimum number of credits. The key change is that in the quarter system the required course was a choice of three courses (the more biological Entomology 500, and the more applied Entomology 460 and 462), while in semesters the required course is only one, Entomology 3000 (the former 500), while the applied courses are among the choices for the remaining credit hours.

Summary of changes in undergraduate course offerings:

1. Most of our courses are one-quarter courses that are not part of a sequence, so the transition to semesters resulted in generally the same number of courses and the same names of courses. Most courses were 5 credits in the quarter system and will now be 3 credits in the semester system.

2. A review of individual courses found that there was duplication of introductory material in several courses that are sometimes taken by the same students. A plan was made to modularize several courses so that the introductory module could be taken just once.

3. We are offering a revised version of courses in applied entomology. Students majoring in Entomology, Horticulture and Crop Science, and Plant Health Management are required to take one of these courses. Instead of just two choices (Entomology 460 and 462) that are standard full-term courses, we are offering these in a modular format. The introductory module (4600) is a one-credit course that is a distance course. It is followed by any of 7 modules in general pest management, landscape entomology, agricultural entomology, urban entomology, public health entomology, forensic entomology, and veterinary entomology. Several of these are partial distance courses, with the lectures as the distance component and the labs as traditional in-person components.

4. Our service course for forestry majors, "Forest Entomology" (461) has been redesigned and combined with plant pathology material to become a co-listed course, "Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments" (Entomology/Plant Pathology 5110).

5. Several of our most popular courses are being converted to semesters with little change; these include General Entomology (500/3000), Social Insects (333/3330), and Honors Social Insects (H444/4440H), and Insect Biology (101/1101). We are retaining our three summer courses that are taught at Stone Lab (126/1260, 520/4200, 612/5120), which are most commonly taken by students outside of our major; these also are undergoing negligible change with the semester system.

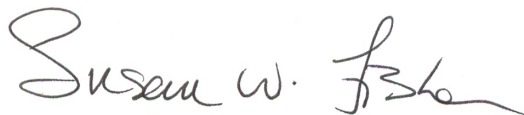
6. We continue to offer Entomology 1101 (101), "Insect biology", which can be used to meet the general education biology requirement. We are proposing a new service course that is a variant of Entomology 101 that will be Entomology 1111, "Biology of Insects, Animals, and Fungi Affecting Buildings". We propose that this will be used to fulfill the general education biology requirement for students in the Construction Systems Management major.

7. Now that a two-course sequence in biology is no longer part of the general education requirement, we are changing our second course, Entomology 102 ("Insect Biology 2"), to 2101, "Insects and Human Affairs: Pests, Plagues, Poisons & Politics". This will be a distance course that could fill the general education requirement for Cultures & Ideas section of the Arts and Humanities.

8. We are shifting several elective courses that were at a 600 level to the 5000 level: Biological Control (5500), Insect Behavior (5420), and Aquatic Entomology (5120). We thus hope to attract more upper level undergraduates to these courses.

9. We are offering three new courses as electives for our majors, minors, and students from other majors. These are Introductory Beekeeping (2200), Pesticide Science (5800), and Field Insect Taxonomy (5130).

Sincerely,



Susan Fisher
Chair, Department of Entomology

Entomology Minor Program Rationale Statement

1. The objectives of a minor in Entomology are to provide insight into the role of insects in human affairs and in the environment. Insects are the largest existing group of living organisms on Planet Earth and, while largely unappreciated, are arguably the most impactful. Insects are highly adaptable and can be found in virtually all terrestrial and fresh water habitats. Some have major adverse impacts on human activities: destroying crops and food supplies, transmitting diseases, or simply being annoyances. However, the vast majority of insects are considered beneficial: providing pollination services, being primary consumers of dead plants and animals, controlling their own kind (parasites and predators), and even serving as food. Insects have served as major scientific models in studies of genetics, behavior, physiology and population dynamics. Students minoring in entomology are exposed to many roles that insects play in the modern world.

Students in CFAES should consider a minor in entomology, especially those in animal sciences, pre-veterinary medicine, veterinary public health, crop science, turfgrass science, landscape horticulture, agricultural and extension education, and environmental science. A minor in entomology is also complementary to majors in evolution and ecology, zoology, and biology.

2. A set of seven broad learning objectives for the undergraduate program was developed in March 2010, and a curriculum map was made to show which objectives are being met by which courses. Most of the objectives were already being met by our existing curriculum, but it became apparent that our lack of a capstone course prevented us from fully meeting some of our objectives. This was resolved by developing two capstone courses: one in Current Topics in Entomology, Science and Society (Entomology 5601), and one in Plant Health Management that is cross-listed with Plant Pathology (5604). The capstone course will also serve as our third writing course. Although the capstones are designed for the entomology major, they will also be of interest to students minoring in entomology.

The undergraduate learning objectives are:

1. Students will achieve an understanding of insect biology at the molecular, biochemical, organismal, population, community, and ecosystem levels.
2. Students will achieve a holistic framework for understanding sustainability in ways that cross disciplinary boundaries from entomology to other natural, physical, economic and social sciences.
3. Students will achieve a conceptual understanding of human and natural ecosystems through the lens of insect science.
4. Students will achieve an appreciation of the threats and ecosystem services attributed to insects and how these can shape scientific discovery, policy formation, and resource management decisions.
5. Students will achieve an understanding of the history and the nature of science including hypothesis testing as required for scientifically literate populace.
6. Students will achieve an ethical framework for inquiry and action in science and society that includes entrepreneurship and business; collaboration, political and community engagement; and environmental stewardship.
7. Students will achieve a demonstrated ability to apply a set of critical thinking tools to issue-based cross-disciplinary work and to communicate their thinking and analysis.

Semester advising sheet:

Minor in Entomology

The objectives of a minor in Entomology are to provide insight into the role of insects in human affairs and in the environment. Students majoring in fields associated with food production will be interested in Entomology because of the critical role insects play as direct competitors with humans. Students in CFAES should consider a minor in entomology, especially those in animal sciences, pre-veterinary medicine, veterinary public health, crop science, turf grass science, landscape horticulture and agricultural and extension education/teacher education.

Minor Requirements

The Entomology minor consists of a minimum of 12 credit hours chosen from the following list.

Required:		Credit Hours
ENTMLGY 3000	General Entomology	3
Required, one of the following:		
ENTMLGY 4601	General Insect Pest Management	2
ENTMLGY 4602	Urban Landscape and Greenhouse Entomology	2
ENTMLGY 4603	Agricultural Entomology	2
ENTMLGY 4604	Urban Entomology: Structural & Nuisance Pests	2
ENTMLGY 4606	Forensic Entomology	2
ENTMLGY 4607	Veterinary Entomology	2
ENTMLGY 5110	Ecology & Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments	3
ENTMLGY 5605	Human Health Entomology	2
Required Electives, 6-7 hours from courses above or below:		
ENTMLGY 2101	Insects and Human Affairs: Pests, Plagues, Poisons & Politics	3
ENTMLGY 2200	Beekeeping	3
ENTMLGY 3330	Social Insects	3
ENTMLGY 4440H	Social Insects (honors)	3
ENTMLGY 4191	Internship Experience in Entomology	1-2
ENTMLGY 4200	Insect Biology for Teachers (Stone Lab)	2
ENTMLGY 4683	Research with Distinction	1-3
ENTMLGY 4683H	Research with Distinction (honors)	1-3
ENTMLGY 4998	Undergraduate Research in Entomology	1-3
ENTMLGY 5120	Aquatic Insect Biology and Ecology (Stone Lab)	3-4
ENTMLGY 5130	Field Insect Taxonomy	3
ENTMLGY 5420	Insect Behavior: Mechanisms and Function	3
ENTMLGY 5500	Biological Control of Arthropod Pests	3
ENTMLGY 5600	Principles and Applications of Integrated Pest Management	3
ENTMLGY 5601	Current Topics in Entomology, Science and Society	3
ENTMLGY 5604	Capstone Course: Problem-Based Studies in Plant Health	2
ENTMLGY 5623	Insect Morphology	2
ENTMLGY 5800	Pesticide Science	3

Be sure to check prerequisites especially for the 5xxx and above courses. Research is one option for those especially interested in entomology and graduate education.

1. The minor is not available to student majoring in Plant Health Management
2. A minimum overall GPA for courses comprising the minor shall be 2.00
3. A minor should be declared at the time a student accumulates 60 hours.
4. A maximum of one course may overlap between the minor and the Gen. Ed. (Writing, literature, Arts, Natural Sciences, Historical Study, Social Sciences, Culture and Ideas, Contemporary Issues)
5. Courses taken on a pass/non pass basis may not be applied to the minor.

Current advising sheet for the quarter system:

ENTOMOLOGY MINOR (183)

College of Food, Agricultural, and Environmental Sciences

Faculty Advisers:

Glen Needham, Ph.D., Aronoff Lab, 318 W. 12th Ave, Room 490

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Insects are the largest existing group of living organisms on Planet Earth and, while largely unappreciated, are arguably the most impactful. Insects are highly adaptable and can be found in virtually all terrestrial and fresh water habitats. Some have major adverse impacts on human activities: destroying crops and food supplies, transmitting diseases, or simply being annoyances. However, the vast majority of insects are considered beneficial: providing pollination services, being primary consumers of dead plants and animals, controlling their own kind (parasites and predators), and even serving as food. Insects have served as major scientific models in studies of genetics, behavior, physiology and population dynamics.

The objectives of a minor in Entomology are to provide insight into the role of insects in human affairs and in the environment. Students majoring in fields associated with food production will be interested in Entomology because of the critical role insects play as direct competitors with humans. Students in CFAES should consider a minor in entomology, especially those in animal sciences, pre-veterinary medicine, veterinary public health, crop science, turf grass science, landscape horticulture and agricultural and extension education/teacher education.

The Entomology minor consists of a minimum of 20 credit hours chosen from the following list.

Required: 4-5 hours Credit Hours

ENTOMOL 500 General Entomology	5
or 460 Economic Entomology and Insect Pest Management	5
or 462 Economic Entomology for Turf, Ornamentals, Greenhouse	4

Required Electives: 15-16 hours

ENTOMOL 333 Social Insects	5
ENTOMOL 444H Social Insects (honors)	5
ENTOMOL 460 Economic Entomology & Insect Pest Management	5
ENTOMOL 461 Forest Entomology	5
ENTOMOL 462 Economic Entomology for Turf, Ornamentals & Greenhouses	4
ENTOMOL 489 Internship in Entomology	3-5
ENTOMOL 550 Comparative Endocrinology	3
ENTOMOL 611 Field Entomology	5
ENTOMOL 612 Aquatic Entomology	5 (Stone Lab, Summer)
ENTOMOL 623 Insect Morphology	5
ENTOMOL 631 Insect Physiology (requires Chem 251, 254)	5
ENTOMOL 641 Insect Ecology	5
ENTOMOL 642 Insect Behavior	5
ENTOMOL 660 Advanced Economic Entomology	5
ENTOMOL 661 Medical Entomology	5
ENTOMOL 664 Host Plant Resistance to Insects	3
ENTOMOL 670 General Acarology	4
ENTOMOL 693 Individual Studies	1-5
ENTOMOL 694 Insect Biodiversity Analysis	4
ENTOMOL 694 Group Studies	1-5
ENTOMOL 699 Undergraduate Research in Entomology	1-5
ENTOMOL 783H Honors Research	1-5

Be sure to check prerequisites especially for the 5xx and above courses. Check the entomology web site and course bulletin for updated information and further details. Research is one option for those especially interested in entomology and graduate education.

Restrictions and General Information

1. This minor is not available to students majoring in Plant Health Management.
2. A minimum overall CPHR for courses comprising the minor shall be 2.0.
3. A minor should be declared at the time a student accumulates 90 hours.
4. A maximum of five credit hours may overlap between the minor and the GEC (foundations, natural sciences, arts and humanities and social sciences).
5. Courses taken on a pass/non pass basis may not be applied to the minor.

List of semester courses in Entomology: Proposed courses in OSU's new Dept. of Entomology in CFAES

New number (ENTMLGY)	Old number (ENTOMOL)	Credit hours (semester)	With lab?	Title	Pre-requisites	Target students		
						Entomology majors	Entomology minors	other
UNDERGRADUATE COURSES								
1101	101	4	yes	Insect biology	none	no	no	alternative for all majors that require Bio101
1111	(101)	4	yes	Biology of insects, animals & fungi affecting buildings	none	no	no	Const. mgmt.
1260	126	2	yes	Introductory insect field biology [StoneLab]	none	no	no	any
2101	102	3	no	Insects and human affairs: Pests, plagues, poisons & politics [distance]	none	optional (cultural GEC?)	optional (cultural GEC?)	optional (cultural GEC?)
2200	-	3	yes	Beekeeping	none	optional	optional	optional
3000	500	3	yes	General Entomology	Bio 113 or H115	required	required	optional
3330	333	3	no	Social Insects	Bio 101 or 113 or H115 or Entmlgy 1101	optional	optional	optional
4191	(489)	1-2	no	Internship Experience in Entomology	Entmlgy 3000	required	optional	optional
4193	693	1-3		Individual Studies	-	-	-	-
4194	294	1-3		Group Studies	-	-	-	-
4200	520	2	yes	Insect Biology for Teachers [Stone Lab]	junior rank or above	optional	optional	teachers; education majors
4440H	H444	3 & 3	no	Social Insects (honors)	Bio 101 or 113 or H115 or Entmlgy 1101	optional	optional	optional
4600	460, 462	1	no	Introductory Insect Science	Bio 101 (not open if credit for Entmlgy 1101 or 3000)	no	no	required for HCS, PHM (& Ani.Sci.?)
4601	460	2	yes	General Insect Pest Management	Entmlgy 1101 or 3000 or 4600	one required (or 5110 or 5605); additional ones optional	one required (or 5110 or 5605); additional ones optional	one required for majors in HCS, PHM (& Ani.Sci.); additional ones optional
4602	462	2	yes	Urban Landscape & Greenhouse Entomology				
4603	(460)	2	yes	Agricultural Entomology				
4604	-	2	yes	Urban Entomology: Structural & Nuisance Pests				
4606	-	2	yes	Forensic Entomology				
4607	-	2	yes	Veterinary Entomology				
4683	699	1-3	-	Research with Distinction	Permission of instructor	encouraged	optional	optional
4683H	699	1-3	-	Research with Distinction (honors)	Permission of instructor	encouraged	optional	optional
4998	699	1-3	-	Undergrad Research in Entomology	Permission of instructor	encouraged	optional	optional
COMBINED UNDERGRADUATE & GRADUATE COURSES								
5110 (cross-list Plant Path.)	461+	3	no	Ecology and Management of Pathogens and Insects Affecting Trees in Forest and Urban Environments	Bio 101 or Entmlgy 1101	optional	optional	required for forestry majors
5120	612	3-4	yes	Aquatic Insect Biology and Ecology [Stone Lab]	15 qtr-cr hrs of Bio.Sci., at least junior standing, GPA min. 2.5, or per. instructor	optional	optional	optional
5130	-	3	yes	Field Insect Taxonomy	Entmlgy 1101 or 3000 or 4600	Required, MS & PhD	optional	optional
5420	642	3	no	Insect Behavior: Mechanisms & Function	Bio 114 or Entmlgy 3000	optional	optional	optional
5500	650	3	no	Biological Control of Arthropod Pests	Entmlgy 1101 or 3000 or 4600	optional	optional	optional
5601	-	3	no	Current Topics in Entomology, Science and Society	Senior status	Required (or 5604)	optional	optional
5604 (cross-list Plant Path.)	-	2	no	Capstone Course: Problem-Based Studies in Plant Health	Junior or senior status	Required (or 5601)	optional	optional
5605	-	2	yes	Human Health Entomology	Entmlgy 1101 or 3000 or 4600			
5600	660	3	no	Principles and Applications of Integrated Pest Management	Entmlgy 1101 or 3000 or 4600	optional	optional	optional
5623	623	2	yes	Insect Morphology	Entmlgy 1101 or 3000 or 4600	optional	optional	optional
5800	-	3	no	Pesticide Science	Bio 101 or Entmlgy 1101	optional	optional	optional

New number (ENTMLGY)	Old number (ENTOMOL)	Credit hours (semester)	With lab?	Title	Pre-requisites	Target students		
						Entomology majors	Entomology minors	other
GRADUATE COURSES								
6193	693	1-3	-	Individual studies	-	-	-	-
6194	694	1-3	-	Group studies	-	-	-	-
6310	631	3	no	Insect physiology and molecular biology	CHEM 231 or 251 or H251, and Ent 3000	required for PhD and MS	optional	optional
6410	641	3	no	Insect ecology & evolutionary processes	EEOB 503.01 or 503.03 or permission	required for PhD and MS	optional	optional
6701	-	2	yes	Biodiversity analysis for ecosystem sustainability & resilience	Ent 3000 and 5130 or permission	All 4 required for PhD; at least 2 of these 4 required for MS.	optional	optional
6702	-	2	yes	Entomological techniques and data analysis	Ent 1101 or 3000 or 4600		optional	optional
6703	(632)	2	yes	Molecular techniques and data analysis	Mol Gen 500 or H500 or permission		optional	optional
6704	(645)	2	yes	Systems analysis from molecules to ecosystems	Calculus (Math 151 or 161 or 140 or 117); statistics (Stat 135 or 528)		optional	optional
7890	795	1-2	no	Special topics in entomology		optional	optional	optional
7910	790	2	no	The nature and practice of science		At least 2 of these 4 required for MS and PhD	optional	optional
7920	-	2	no	Presentation skills for scientists			optional	optional
7930	-	2	no	Scientific writing and grant proposal development			optional	optional
7940	-	2	no	Interdisciplinary research, teamwork, and leadership			optional	optional
8000	800	1	no	Entomology seminar		optional	optional	optional
8800	880	1	no	Research and training seminar		Required in first year	optional	optional
8999	999	1-15		Research in entomology		required for MS plan A and PhD	optional	optional

Note: we are hopeful that in EEOB, courses formerly in Entomology, such as medical ent. (661), insect systematics & diversity (621), comparative endocrinology (550), general acarology (670), cladistic methods (626), and Acarology, will still be offered.

Transition policy:

Given that the Department of Entomology offers only one minor in the quarter system and will offer only one minor in the semester system, it is likely that most students who start in this minor will continue to pursue this minor during the transition. Most students that are currently juniors or seniors with a minor in Entomology are likely to complete their degree under the quarter system with the previous requirements defined by the College of Biological Sciences. Most students that are currently freshmen or sophomores with a minor in Entomology are likely to complete their degree under the semester system with the new requirements in the CFAES as defined in this document. The required number of credit hours for the minor will be reduced from 20 (quarter) to 12 (semester), and credits for courses taken under quarters will be adjusted accordingly using a conversion factor of 0.667. Courses that are a one-for-one switch from quarter to semester versions should be relatively easy to incorporate into a student's program. If the course plan had included quarter courses that are dropped or significantly altered during the conversion, or semester versions that will not be available before the student's projected graduation date, then suitable semester alternatives will be substituted. The substitutions will be based on course content and meeting the needs of the student's career path and time to graduation.

In general, transition students are being encouraged to complete the quarter system general education categories that have no or few options (e.g. most sciences, social science) before the conversion. They are also being encouraged to take required courses in the minor for the same reason. The categories with the most options (some semester general education categories and electives in the minor) are likely to provide the most flexibility in course choice and scheduling under semesters.

The University Pledge to Undergraduate Students (copied below) will be followed by the faculty advisors in Entomology. Advisors will encourage their advisees to be proactive in getting help with scheduling courses before and after the conversion to make sure progress toward graduation is not impeded as long as the students follow a course of action that promotes progress. The course of action includes but is not limited to: a timely declaration of major and minor, taking courses in proper sequence, taking and successfully completing a sufficient number of hours each term, and maintaining a grade point average above 2.0 in the major and minor. Transition students (those who start under quarters and will finish under semesters) will receive information regarding the semester conversion via their academic advisors. This is intended to keep them informed of the process, the progress being made in undergraduate programs and course approval, as well as what they should be doing to make the transition as seamless as possible.

University Pledge to Undergraduate Students:

In planning and implementing its conversion from quarters to semesters for summer 2012, The Ohio State University is committed to protecting the academic progress of students. Students should find that the shift from quarters to semesters does not disrupt progress toward their degrees if they

1. decide on their major and degree within a time compatible with four-year graduation;
2. meet the standards for progress defined by their academic unit and continue to complete appropriate course loads successfully; and
3. actively develop and follow academic plans in consultation with their academic advisors.

Students completing a quarter-plus-semester degree program will receive approximately the same amount of instruction, and the changes to the calendar and to courses should only improve the quality of programs. Full-time tuition (general and instructional fees) for an academic year under semesters will not cost more than what tuition would have cost for that same year under quarters, and the change should not adversely affect students' financial aid.

To ensure that the conversion will not harm students' progress, academic units will continue to provide intentional, purposeful advising. Academic advisors will understand how the changes in courses and curricula may affect students' degree programs, will know where and how programs can be flexible, and will be prepared to assist students in planning their remaining semesters to graduation. Good planning around a student's major will be particularly important, and the university will provide that support to students who begin their academic career under quarters and complete it under semesters.

Students will vary considerably in their academic progress, and each student's plan for completing degree requirements will need to be determined individually. Every student will be responsible for getting and using the advice essential to assure progress toward his or her degree. Advising is a joint endeavor, and we are confident that students and their advisors, working together, can develop effective plans leading to timely graduation as the university converts to semesters.

ENTOMOLOGY MINOR

College of Food, Agricultural, and Environmental Sciences

Faculty Advisers:

Glen Needham, Ph.D., Aronoff Lab, 318 W. 12th Ave, Room 490
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The Entomology minor consists of a minimum of 12 credit hours chosen from the following list.

Required: **Credit Hours**

ENTMLGY 3000 General Entomology 3

Required, one of the following:

ENTMLGY 4601 General Insect Pest Management 2

ENTMLGY 4602 Urban Landscape and Greenhouse Entomology 2

ENTMLGY 4603 Agricultural Entomology 2

ENTMLGY 4604 Urban Entomology: Structural & Nuisance Pests 2

ENTMLGY 4606 Forensic Entomology 2

ENTMLGY 4607 Veterinary Entomology 2

ENTMLGY 5110 Ecology & Management of Pathogens and Insects Affecting
Trees in Forest and Urban Environments 3

ENTMLGY 5605 Human Health Entomology 2

Required Electives, 6-7 hours from courses above or below:

ENTMLGY 2101 Insects and Human Affairs: Pests, Plagues, Poisons & Politics 3

ENTMLGY 2200 Beekeeping 3

ENTMLGY 3330 Social Insects 3

ENTMLGY 4440H Social Insects 3

ENTMLGY 4200 Insect Biology for Teachers (Stone Lab) 2

ENTMLGY 5120 Aquatic Insect Biology and Ecology (Stone Lab) 3-4

ENTMLGY 5130 Field Insect Taxonomy 3

ENTMLGY 5420 Insect Behavior Mechanisms and Function 3

ENTMLGY 5500 Biological Control of Arthropod Pests 3

ENTMLGY 5600 Principles and Applications of Integrated Pest Management 3

ENTMLGY 5601 Current Topics in Entomology, Science and Society 3

ENTMLGY 5604 Capstone Course: Problem-Based Studies in Plant Health 2

ENTMLGY 5623 Insect Morphology 2

ENTMLGY 5800 Pesticide Science 3

Additional Electives (Pass/no-pass courses that cannot count towards minor):

ENTMLGY 4191 Internship Experience in Entomology 1-2

ENTMLGY 4683 Research with Distinction 1-3

ENTMLGY 4683H Research with Distinction 1-3

ENTMLGY 4998 Undergraduate Research 1-3

Be sure to check prerequisites especially for the 5xxx and above courses. Research is one option for those especially interested in entomology and graduate education.

1. The minor is not available to student majoring in Plant Health Management
2. A minimum overall GPA for courses comprising the minor shall be 2.00
3. A minor should be declared at the time a student accumulates 60 hours.
4. A maximum of one course may overlap between the minor and the GEC (Writing, literature, Arts, Natural Sciences, Historical Study, Social Sciences, Culture and Ideas, Contemporary Issues)
5. Courses taken on a pass/non pass basis may not be applied to the minor.