

# DEPARTMENT OF ENTOMOLOGY

UNIVERSITY OF  
**Nebraska**  
Lincoln



## ONLINE GRADUATE STUDENT HANDBOOK

103 Entomology Hall, Lincoln, NE 68583-0816

◆ 402 472-2123 ◆

<http://entomology.unl.edu>

## **Table of Contents**

General Introduction .....	3
Graduate Admission Information and Program Procedures .....	3
Minimum Entrance Requirements .....	4
Community .....	4
History of the Department of Entomology and Its Curriculum .....	5
Current Graduate Courses .....	5
Current Faculty and Department Priority Areas .....	5
Facilities Available to Entomology Graduate Students	
University Libraries .....	5
Financial Assistance	
Office of Scholarships and Financial Aid .....	6
Requirements for the Masters Degree .....	6
Option III .....	6
MOC .....	6
Satisfactory Progress .....	6
Scholastic Grade Requirements .....	7
Examinations .....	7

*June 2017*

*The Information in this handbook and other University catalogs, publications, or announcements is subject to change without notice. University offices can provide current information about possible changes.*

**For graduate school information, contact:**

**Dr. Joe Louis**  
Graduate Chair  
[joelouis@unl.edu](mailto:joelouis@unl.edu)

Department of Entomology  
University of Nebraska-Lincoln  
Lincoln, NE 68583-0816

**Erin Bauer**  
Lecturer  
[ebauer2@unl.edu](mailto:ebauer2@unl.edu)

Department of Entomology  
University of Nebraska-Lincoln  
Lincoln, NE 68583-0816

**Dr. Tom Weissling**  
Distance Ed Coordinator  
[tweissling2@unl.edu](mailto:tweissling2@unl.edu)

## GENERAL INTRODUCTION

Welcome to the Department of Entomology at the University of Nebraska! This handbook has been prepared to introduce new or prospective online students to the Entomology Department. It is a guide to graduate admission information and program procedures for prospective online students. We provide a brief introduction to our community and the department's history, followed by information on resources, financial assistance, and the role of the graduate committee. The final sections cover requirements for the online M.S. degree established by Graduate Studies and additional requirements established by the Entomology Department.

## GRADUATE ADMISSION INFORMATION AND PROGRAM PROCEDURES

Overall procedures and policies in the Department of Entomology comply with those established by the University of Nebraska–Lincoln [Office of Graduate Studies](#). However, in some cases, department requirements may be more stringent than those of Graduate Studies.

Students seeking admission to the online M.S. program must hold a B.S. or B.A. degree from an accredited college or university. Baccalaureate course work must include chemistry, mathematics, biology, and introductory entomology. A grade of C or better is required for all prerequisites. An undergraduate level statistics course will not fulfill the college level mathematics prerequisite. Students may be allowed provisional admission into the M.S. program with deficiencies in these areas, but all deficiencies must be removed within the first year in the program. These courses do not count toward the program of study, but can be taken at UNL, a community college, or another similar institution of higher learning.

Submit the following to the Office of Graduate Studies:

- [Application for Graduate Admission](#)
- \$50.00 non-refundable [application fee](#)
- A transcript confirming eligibility, uploaded to [MyRED](#) (see [upload requirements](#))
- *If your native language is not English:* [verification of English proficiency](#)

Submitting the Application for Graduate Admission form begins a series of email communications from Graduate Studies for submitting the rest of your application materials through MyRed which allows applicants to provide all information, documents, and materials electronically.

An application must be complete before an applicant can be considered for admission. Once the application is complete, the four member Department of Entomology Graduate Committee reviews the file to determine if the applicant meets requirements for admission.

### ***Minimum Entrance Requirements***

M.S. – Undergraduate GPA of 3.0 or better - Full Graduate Standing. A GPA of less than 3.0 will be considered on an individual basis for provisional admission. Provisionally admitted students must earn a B or better in their first 9 credit hours of graduate entomology courses. Provisionally admitted students will have their admission revoked if they do not meet the academic standard set in their provisional admittance. Provisional status will be upgraded to full admission when the provisional admittance requirement is met.

International Students – A minimum TOEFL score (paper--550, computer--213, or internet--79) is required by Graduate Studies.

## **COMMUNITY**

Nebraska is located in the east-central region of the Great Plains. Bounded by the Missouri River on the east, the state offers a variety of scenery from the farming area in the east to the rolling Sandhills and the mountainous qualities of the Wildcat Hills and Pine Ridge area in the western Panhandle. Nebraska offers a wide variety of outdoor, year-round activities – check out the [Nebraska Games and Parks Commission](#) website. Lincoln, the capital of Nebraska, has a population of approximately 258,000 (2010 census) and offers some of the finest cultural, historical, and recreational opportunities in the region.

The University of Nebraska-Lincoln is Nebraska's largest educational institution. Founded as a land-grant university in 1869, UNL's primary mission has three aspects: teaching, research, and extension. UNL also actively supports the fine arts and various [athletic programs](#).

UNL consists of nine undergraduate colleges and an Office of Graduate Studies with an enrollment of approximately 25,000 students. The undergraduate colleges are Agricultural Sciences and Natural Resources, Architecture, Arts and Sciences, Business Administration, Education and Human Sciences, Engineering, Hixson-Lied College of Fine and Performing Arts, Journalism and Mass Communications, and Law. These colleges offer bachelor degrees in more than 100 subject areas. The [Office of Graduate Studies](#) offers many programs that lead to masters, professional, specialist, and doctoral degrees. The University has [two campuses](#) – City Campus and East Campus. The City Campus is the main campus where the University's administration is located and the majority of undergraduate classes are held. East Campus classes are primarily related to agriculture but also include the Colleges of Law and Dentistry and the Barkley Memorial Center for speech and hearing.

The foundation for graduate education is research. The faculty and students at UNL are in the forefront of developing new technology and remain aware of the rapid, expanding knowledge in many fields such as entomology. One of the University's major commitments is disseminating newly acquired knowledge. The [Extension Division](#) and [Office of Online & Distance Education](#) are two important programs conducted by UNL faculty and staff to educate the people of Nebraska.

On the cultural side, UNL offers an array of activities. [The Sheldon Memorial Art Gallery and Sculpture Garden](#), Kimball Recital Hall, Temple Theater complex, [University of Nebraska State Museum](#), and the Center for Great Plains Studies Art Collection are among the cultural attractions available.

## HISTORY OF THE DEPARTMENT OF ENTOMOLOGY AND ITS CURRICULUM

The University of Nebraska first opened its doors to students in 1869. In 1872 insects were recognized as being worthy of study, and entomology courses were added to the curriculum. The 1872-73 catalogue stated, "The Zoology of Agriculture will include the habits, diseases and treatment of livestock, the anatomy of the horse, the cow, the sheep and other farm animals, as well as a special consideration of insects injurious to vegetation." Entomology also was listed as one of the courses being offered.

Samuel Aughey, Professor of Natural Sciences, handled the earliest instruction in entomology. However, only a few students took entomology courses until interest in entomology increased in 1895-96. During the same year, Conway G. McMillan obtained a Masters degree with a major in geology and minor in entomology, the first graduate degree from UNL.

In 1888, Lawrence Bruner, a recognized Nebraska entomologist, was appointed to the University staff and over the next few years began teaching. However, it was not until 1895 that the Regents established the Department of Entomology and Ornithology with Lawrence Bruner as its chairman. For several years, Bruner handled the department with whatever assistance he could secure for his "special students" as they pursued their entomological studies. His students contributed to both the instructional and the experimental activities of the department.

Several of these early students became prominent entomologists and held responsible positions in many areas of the United States. Among them were: Harry G. Barber, Walter D. Hunter, J.C. Crawford, M.A. Carriker, Jr., W. Dwight Pierce, Paul R. Jones, William H. Goodwin, Harry S. Smith, Myron H. Swenk, Ralph W. Dawson, Leroy M. Gates, and Clarence E. Mickel. Others who came along a few years later and became distinguished professionally include: Cornelius B. Phillip, Robert H. Nelson, and Orlando S. Bare.

The courses offered in 1895 were preliminary (or general) entomology, economic entomology, systematic entomology, horticultural entomology, and domestic entomology. As the department's research program expanded and teaching staff grew, basic courses were updated and new courses added. [Click here for a listing of current online graduate courses and course schedule.](#)

Research interests, programs, and backgrounds of the faculty are diverse and allow students to pursue many avenues of scientific investigation. In the early years, taxonomic and systematic studies were the most common subjects for advanced degrees. Up until 1950, almost 60 percent of the submitted theses were in these subject areas. A wider choice of subjects has been investigated in the past 50 years because of the larger teaching staff and expanded research programs. **Current faculty and department priority areas are available [here](#).**

## FACILITIES AVAILABLE TO ENTOMOLOGY GRADUATE STUDENTS

### ***Department of Entomology***

The Department of Entomology is located on the East Campus of UNL in the appropriately named Entomology Hall. Feel free to come visit us if you are ever in Lincoln!

### ***University Libraries***

Resources from the University of Nebraska—Lincoln Library system are available to online M.S. students at <http://unl.libguides.com/entomology>. For assistance in obtaining reference materials from the library here at UNL, contact the Entomology Librarian: Leslie Delserone at [ldelserone2@unl.edu](mailto:ldelserone2@unl.edu) or 402-472-6297.

## FINANCIAL ASSISTANCE

Scholarships and fellowships are not available to online M.S. students. Information regarding other types of financial assistance such as loans may be obtained from the [Office of Scholarships and Financial Aid](#).

## REQUIREMENTS FOR THE OPTION III MASTERS DEGREE

### ***Masters Degree Option III***

The Office of Graduate Studies offers the online degree of Master of Science in Entomology under Option III (Option I and II are on campus degrees). Option III permits the substitution of more intensive work in advanced courses. Typically, only students having M.S. degrees with a thesis are admitted into Ph.D. programs. Under Option III, a student must earn a minimum of 36 semester hours of credit, at least 18 of which must be earned in courses open exclusively to graduate students (900 level or 800 level without 400 or lower counterparts). This program must include no fewer than 18 hours in the major. A four credit M.S. Project is required in lieu of a thesis.

### ***Requirements for the online Entomology Masters of Science***

- Total 36 credit hours
- At least 18 credit hours in entomology
- At least 18 credit hours from UNL (cannot transfer more than 18 credit hours)
- At least 18 credit hours in 900 or 800 level courses that do not have a 400 level counterpart

Insect Ecology, Insect ID and Natural History, and M.S. Degree Project are all required courses. In addition, students must take either Insect Physiology *or* Insecticide Toxicology. For further details regarding the Option III and program requirements, consult the Degree Overview at <http://entomology.unl.edu/distedu/distancems.shtml>

### ***Memorandum of Courses:***

The MOC (memorandum of courses) is an outline of the student's program of study. It is similar to a contract. The courses listed on the MOC are expected to be successfully completed (grade of B or better in major courses with an undergraduate counterpart (i.e. 400/800 level) and grade of C or better in major courses without an undergraduate counterpart (i.e. 800 or 900 courses) or in minor courses) before the student can graduate. Minor changes may be made after the MOC is filed, but all changes must be approved by the Office of Graduate Studies. The MOC should be completed *before* the student has completed 18 credit hours towards the degree, preferably once a student has completed 4 credit hours of coursework. However, it can be filed as early as the student's first semester of study. The MOC must be filed before the semester of graduation. The MOC form can be accessed [here](#). When preparing the MOC, the student should consult the course schedule to verify that the courses will be offered in the timeframe of the student's program of study. On the MOC form, the degree of candidacy is M.S. If no minor is being pursued, that area can be left blank. All courses taken, including pertinent transfer credit, and [courses](#) yet to be taken to complete the M.S. degree should be listed. If the course has been completed, the letter grade should be included. Once completed, the MOC should be sent to Tom Weissling at [tweissling2@unl.edu](mailto:tweissling2@unl.edu) or Erin Bauer at [ebauer2@unl.edu](mailto:ebauer2@unl.edu) for approval and signatures. For instructions about MOC preparation, an example of an MOC, degree checklist, the academic calendar and more, go to <http://entomology.unl.edu/distedu/welcome.shtml>

### ***Satisfactory Progress in the Distance M.S. Degree Program***

The Department of Entomology has established expectations regarding satisfactory progress for all students accepted into the online M.S. in Entomology program. Students in the program are expected to enroll for at least 3 credit hours of course work during the Fall and Spring Semesters of each academic year until the requirements

of the Option III masters degree are fulfilled. The expectation of satisfactory progress has been established to ensure the timely completion of a high-quality masters degree program for all graduate students.

### ***Scholastic Grade Requirements***

1. A minimum grade of B is required for graduate credit in 800-level courses with 400 or lower counterparts within the student's major department or area. A grade of B- is not acceptable.
2. A minimum grade of C or P (pass) is required for graduate credit in 800-level courses in minor, collateral, or supporting areas of work. A grade of C- is not acceptable. NOTE: A grade of B- or lower received in a minor course will result in a minor comprehensive being required.
3. A minimum grade of C or P (pass) is required for graduate credit in 900-level courses, or 800-level courses without 400 or lower counterparts.

When applied toward an advanced degree program, only courses at the 900 level, or 800 level without 400 or lower counterparts, in the major department or interdepartmental area may be taken on a pass/no pass (P/N) basis. In minor, collateral, or supporting areas of work 800-level courses with 400 or lower counterparts can be taken on a P/N basis.

A student failing to receive a minimum acceptable grade for graduate level credit may not continue his/her program of studies without permission of the departmental graduate committee concerned, which may require a special examination to determine the student's qualifications for further work.

### ***Examinations***

#### **Multiple Choice Comprehensive Exam**

For Option III M.S in Entomology, students are required to take a Written Comprehensive Exam and either the General Entomology Qualifying Exam or the BCE Exam from the Entomological Society of America. See below for more information.

- a. **General Entomology Qualifying Exam** The General Entomology exam is a 100-point multiple choice exam covering basic areas of entomology such as biology and classification, ecology, physiology, toxicology, and pest management. This is a one-hour, closed-book test administered on Blackboard. Topics to study for the General Entomology Qualifying exam:
  1. History of Entomology
  2. Federal regulations for pesticide registration and usage
  3. General insect classification and biology
  4. Insect morphology and physiology
  5. Insect behavior and ecology
  6. Insect development and metamorphosis
  7. Pest management practices
  8. Medical entomology
- b. **BCE (Board Certified Entomologist) Exam**  
As an alternative to the General Entomology exam given by the Entomology Department, students may take the BCE exam administered by the Entomological Society of America. Requirements and application for this exam are available at <http://www.entocert.org/bce-examinations>

#### **The Written Comprehensive Exam**

This exam is in essay format and is administered via email. Questions are solicited by the distance education coordinator from departmental faculty. The exams may be open-book (by discretion of the faculty member) and is assessed on a pass/fail basis. The questions are general in nature and, as such, require a thorough knowledge and synthesis of information. Students are allowed about a week to complete the exam.

**Suggested Books to consult for exams:**

1. The Science of Entomology (4th ed). 1994. William S. Romoser.
2. Fundamentals of Applied Entomology. Pfadt.
3. Fundamentals of Entomology. R.J. Elzinga.
4. An Introduction to the Study of Insects. Borer, Triplehorn, and Johnson.
5. Destructive and Useful Insects (5th ed.). 1992. Robert Metcalf.
6. An Outline of Entomology. 1994. P. Gullan.

**Final Steps**

Deadlines for submitting the Application for Degree form and other requirements for graduation can be found at the [Graduate Studies website](#).