

Entomology: master's and doctorate, CIP Code: 26.0702

The Department of Entomology is unique in being the only entomology department in the state, and the only academic entomological unit in the state that specifically addresses the land-grant mission of research, teaching, and extension. The department acquires and disseminates new information about insects and related arthropods, which is key to adding to basic knowledge of insects and biology in general, improving technology in the management of insect pests, and maintaining a safe and healthy environment. The department offers an undergraduate academic minor in entomology, a certificate in entomology, and maintains an internationally recognized graduate program leading to M.S. and Ph.D. degrees.

The high quality of this program is demonstrated by the number of students who apply for degree programs, the research productivity of students accepted in the program, and their success in finding postdoctoral, academic, and industry positions. Demand for entry into the graduate program is quite high, and each year the department turns away domestic and international applicants. Entomology students publish their research in a variety of peer-reviewed journals, and many students submit or publish research results before they graduate.

Graduates from the M.S. and Ph.D. programs have been successful in finding appropriate employment or discipline-related placement after leaving KSU. Master's degree graduates typically go on for a Ph.D. in entomology or a related field at KSU or other universities, and recent M.S. graduates have found employment or are earning their Ph.D.'s at high quality institutions such as Cornell University, Kansas State University, Louisiana State University, Michigan State University, University of California (Riverside), University of Kentucky, and Washington State University. Other M.S. graduates find employment as entomologists in the private or public sector with organizations such as AT&T, Pioneer Hi-Bred International, public education, and USDA/ARS.

Ph.D. graduates have been very successful in obtaining postdoctoral, academic, industry, or military positions upon graduation. Recent Ph.D. graduates have been employed by academic institutions or private companies including Arizona State University, BASF, Dow Agrosciences, Elanco Animal Health, Michigan State University, Monsanto Corporation, Oklahoma State University, South Carolina State University, University of California (Riverside), University of Florida, University of Kentucky, University of Minnesota, University of Texas (Tyler), and the USDA Systematic Entomology Lab (Washington, D.C.).

All departmental lecture courses are taught by tenured or tenure-track faculty who hold a Ph.D. degree. Faculty provide outstanding service to their profession by serving on editorial boards of scientific journals, on review panels for grants and department and national programs, and as officers in regional, national, and international professional societies. They also serve on regional and national committees and organize symposia and workshops. The high research and publication output, which are based in large part on graduate student training and research, coupled with the amount of grant dollars generated, make this a very efficient academic unit.

Summarized Assessment of Student Learning – M.S., Ph.D.

Department of Entomology, Doctoral and Masters Degree Programs

Student Learning Outcomes (SLOs):

1) a core knowledge of entomology, including ecology, taxonomy, physiology, and pest management; 2) the ability to conduct original research, including the analysis and interpretation of data; 3) in-depth knowledge in an area of specialization; 4) general knowledge of current issues and methods in science; 5) the ability to write scientifically sound research proposals and manuscripts; and 6) the ability to orally present scientific information and research ideas.

Results:

Based upon completion of measures, such as evaluations of written research proposals, research proposal seminars, written and oral preliminary exams, course grades, defense seminars, publications, and job placement, the department believes the graduate students are receiving a high level of quality in their education and training. Quantitative data on pre- and post-tests within courses and for individual students from admission to graduate were not obtained because of a lack of coordination within the department that resulted from recent transitions in department leadership.

Actions/Revisions:

The department did not utilize a clear methodology for implementing their original assessment plan. The department intends to develop more effective and meaningful assessment tools and to keep data on assessments current and easily retrievable. They are making revisions to the SLOs and their associated assessment and intend for this process to be completed by the end of academic year 2008-2009.