

# Entomology and Nematology Academic Learning Compact



## 1. Academic Learning Compact for a major in Entomology & Nematology B.S.

### 2. What are Academic Learning Compacts?

Academic Learning Compacts are agreements that describe the communication skills, critical thinking skills, and content knowledge in the major (known collectively as Student Learning Outcomes) that students should acquire if they diligently follow the prescribed course of study. UF is required to assess student achievement in these Student Learning Outcomes through Individual Student Assessments before graduation. Satisfactory completion of the SLOs constitutes successful completion of the Academic Learning Compact.

Each baccalaureate degree program has formulated a set of SLOs suitable to the major. Each set of SLOs will require satisfactory completion of the baccalaureate degree, as specified in the Undergraduate Catalog. Each major will require one or more SLOs to satisfactorily complete the Academic Learning Compact.

**DEFINITIONS: Academic Learning Compact:** UF’s definition for each major of communication skills, critical thinking skills and content knowledge appropriate for that major. **Student Learning Outcomes:** what students are expected to learn by completing a particular major. **Individual Students Assessments:** the different ways in which UF will measure whether students have successfully completed the Learning Outcomes for a particular major. These may include a passing score on a particular test, a final project, term paper, portfolio and so on. Faculty in each major have decided what the most effective means to do this is for their particular major.

- Students pursuing a degree in Entomology & Nematology are offered flexibility in a curriculum that develops an excellent knowledge base and an understanding of the concepts and fundamental practices of entomology and nematology. Knowledge is gained through formal courses, laboratory experimentation and individual research experiences. Emphasis is placed on how the scientific method is applied to gain an understanding of the biological world at the whole organism and population levels. Students learn to evaluate hypotheses, acquire and interpret experimental data, and effectively communicate results in an appropriate style of presentation. Of special focus will be information on insect identification, morphology, behavior, physiology and ecology. These Student Learning Outcomes will be measured by Individual Student Assessments in the form of an Academic Learning Compact in the department prior to graduation.

### 4. Student Learning Outcomes (SLOs):

	ENY 3005	ENY 3005L	ENY 4161
<b>Content Knowledge/Skills</b>			
Student will have knowledge of insect identification, morphology, physiology and behavior.	X	X	X
<b>Critical Thinking Skills</b>			
Students will acquire, analyze, and synthesize entomological information.	X	X	X
<b>Communication Skills</b>			
Students will demonstrate oral or written proficiency in the entomological sciences.	X	X	X

### 5. Individual Student Assessments:

- Complete the requirements for the baccalaureate degree, as determined by faculty.
- Submit your ALC to the undergraduate coordinator, the penultimate semester of the degree.

- Entomology and Nematology students must take an ALC assessment in their penultimate semester of the B.S. in entomology and nematology. All entomology and nematology majors must complete the graded assignment and must score at least 70 to pass. Students minoring in entomology are exempt. All work is to be completed by the individual student and must be original to this assignment. **Any student not passing the assignment must take a 1 unit course his/her last semester aimed at intensive tutoring on established deficiencies and then re-take the exam.** The instructor for the 1 unit course will be the faculty member in charge of grading the assignment the previous semester. All faculty rotating in competency exam grading will form a committee chaired by the undergraduate coordinator. This group will reach consensus on a syllabus and an approach for the 1 unit course. The ALC should be submitted to the undergraduate coordinator the semester prior to the semester of graduation. The assessment will be tailored to individual degree tracks. Students must select a refereed journal article and receive approval from the undergraduate coordinator to use that article. One approved, the student must provide a written ANALYSIS of the article. The grade will be allocated by the undergraduate coordinator and one other faculty from the undergraduate committee and scored as follows:

Area	Grammar, Syntax, Flow and Readability	Analysis of Assumptions, Hypotheses and Principal Aims	Analysis of Research Results	Analysis of Strengths and Weaknesses of Experimental Design	Analysis of Possible Alternative Hypotheses
Pts. Assigned	20	20	20	20	20
Grade (out of 20) Assigned					

ALC Summary: Find an appropriate research article associated with your degree track. Have the article approved by the undergraduate coordinator. Submit your analysis of the article using the grading rubric above for organization. This is required the penultimate semester before graduation.

Suggested topics for each degree track are: (by no means all-inclusive)

**Pre-Professional:** medical entomology, insect vectored diseases, history of medicine, human research, animal research

**Basic Science:** research design, history of entomology, statistical analysis of entomology, grantsmanship

**Ecotourism:** public history, nature interpretation, museum science, nature park structure

**Plant Protection:** IPM, sampling design, economic thresholds, tactics & strategies of IPM, classical biological control

**Urban Pest Management:** pesticide labels, the urban insect setting, applicator certification, EPA registration, termite control

**Biosecurity:** invasive species, pests as national security threats, monitoring invasive species, national biosecurity policies and pests

Once passed, written responses and scores will be maintained in the student services offices at the Entomology & Nematology Student Services office.