

Evolutionary Biology, PhD

LAEVOPHD

How do organisms adapt? What is the history of our species? Dobzhansky famously wrote, "Nothing in biology makes sense except in the light of evolution." In this program, you will learn about fundamental processes that govern the history and dynamics of living systems, from molecules to cells, from societies to ecosystems.

Program description

Degree awarded: PHD Evolutionary Biology

The evolutionary biology PhD is a transdisciplinary graduate degree program that provides doctorate-level training in the historical, conceptual, empirical and quantitative aspects of biological evolution.

Evolution is a fundamental scientific concept underlying all aspects of modern biological, environmental and health-related research. It cuts across biological sciences in ways that few other foci do and informs the theoretical foundations of subfields like population genetics and ecosystem ecology. It allows integration of information and patterns across levels of organization, informs the theoretical foundations of subfields ranging from population genetics to systematics to ecosystem ecology, and provides bridges between temporal and spatial scales.

Forgoing emphases on particular taxa or methods, the program focuses on understanding the patterns and processes that have shaped life on Earth and continue to do so, training the next generation of scientists to use this knowledge to meet present and future challenges to the biosphere and human health in the face of increasing environmental perturbation.

At a glance

- **College/School:** [The College of Liberal Arts and Sciences](#)
- **Location:** [Tempe](#)

Degree requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Core (9 credit hours)

BIO 514 Statistical Models for Biology (4)

EVO 601 Principles of Evolution (3)

EVO 610 Research Areas of Evolution (2)

Electives (9 credit hours)

The program advisor as well as the student's advisor will determine these courses in conjunction with the student.

Other Requirements (54 credit hours)

research, coursework or 30 credit hours from a previously awarded master's degree

Dissertation (12 credit hours)

EVO 799 Dissertation (12)

Additional Curriculum Information

Students take EVO 610 twice for one credit hour.

Admission requirements

Applicants must fulfill the requirements of both the Graduate College and The College of Liberal Arts and Sciences.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in a related discipline from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Applicants must submit the following:

1. graduate admission application and application fee
2. official transcripts
3. academic record form
4. personal statement
5. curriculum vitae or resume
6. three letters of recommendation
7. proof of English proficiency

Additional Application Information

An applicant whose native language is not English must provide [proof of English proficiency](#) regardless of their current residency.

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about [ASU tuition and financial aid](#) options to find out which will work best for them.

Program learning outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Able to review the literature relevant to the research question in evolutionary biology that they address in their dissertation.
- Able to execute a research plan of their own design that addresses a significant scientific question about evolutionary biology.
- Able to communicate the rationale and results of their research, both orally and in writing.

Career opportunities

Those who have earned a doctorate in evolutionary biology are prepared for academic careers at every level, from community colleges to research universities, and their skills and knowledge are also valuable for government careers in federal and state agencies, and for careers in industry and nongovernmental organizations.

Career examples include:

- health care scientists in academic, private and industrial labs
- principal investigators in government labs and nonprofit organizations
- professors or instructors in universities and colleges
- science teachers in elementary and high schools
- wildlife, animal and conservation scientists

Contact information

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