



COURSES TAUGHT BY STEVAN J. ARNOLD AT OSU

Evolution (Biology 445/555, 3 credits, Fall term, with Profs. Michael Blouin or David Lytle).- Evolution for biological science majors. Formal analysis of genetic and ecological mechanisms that produce evolutionary change; special topics include speciation, ecological constraints, adaptive radiations, paleontology, biogeography, the origin of life, molecular evolution, and human evolution. PREREQ: BI 311; BI 370. Text.- Freeman, S. and J. C. Herron. 2013. *Evolutionary Analysis*, 5th edition. Prentice Hall. [Syllabus](#)

Grant Writing and Ethics (Zoology 585, 3 credits, Fall term).- This workshop will give you experience with the theory and practice of writing grant proposals. Each participant will write and submit at least one grant proposal by the end of the term. By the time of the first course meeting, you should identify the specific type of grant that you will apply for and establish whether you are eligible. In past workshops participants have applied for fellowships to attend special courses (e.g., Woods Hole summer courses, Organization for Tropical Studies courses), National Science Foundation grants (Doctoral Research Fellowships, Dissertation Improvement Grants, Postdoctoral Fellowships), and awards from societies and foundations (e.g., Gaige Awards, Sigma Xi grants-in-aid of research, grants from the Theodore Roosevelt Fund, etc.). If you intend to apply for research grant, you should settle on a research topic and plan of attack in consultation with your advisor before the first class meeting. Taking this course does not guarantee that your proposal will be funded, but workshop participants have had notable success with their applications! The course begins with a brief overview of the main components of a typical grant proposal (abstract, rationale, specific aims, background, research plan, outreach plan, significance, literature cited). After this background, the weekly meetings consist of reading and critiquing proposal drafts written by participants in the workshop. Ethical issues are discussed as they are encountered during draft critiques. [Syllabus](#)

Scientific Writing and Ethics (Zoology 587, 3 credits, Winter term).- This course is designed for graduate students who wish to improve their skills in writing a scientific paper. During the course, participants will write a scientific paper based on their own research and submit it for publication. The course is recommended for graduate students who have completed two or more years of graduate school, collected data, and analyzed those data. Topics to be covered include: making a good argument, choice of a journal, reviewing the literature, presentation of evidence, getting and giving feedback, editing, interacting with collaborators and co-authors, preparing

illustrations, submitting your article, and responding to journal decisions. Ethical issues to be covered include: citation, plagiarism, disclosure, data archiving, and acknowledgment. Texts: Schimel, J. 2012. *Writing Science*, Oxford; Belcher, W. L. 2009. *Writing Your Journal Article in 12 Weeks*, Sage. [Syllabus](#)