BIOL 5010—Advanced Writing in Environmental Science—Spring 2016

GENERAL INFORMATION

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Credits: 4 units
Meeting Room/Lab: N202/201/230/206
Wed. & Fri., from 1:00 to 4:00 p.m.

Office Hours: Fri. 8-10 (or by appt.)

Email is the best way to reach me and I usually respond within 24 hours. Please type "BIOL 5010" at the start of the subject line and please include your name in the email. I would prefer that you use your university email address for all class-related communications. This will be important also for class activities that use Blackboard. You can also call or text me on my mobile phone.

BIOL 5010—Advanced Writing in Environmental Science (4 units)—provides realistic exposure to environmental review and analysis, involving intensive skills development in project management, bibliographic research, statistical analysis, and preparation of technical reports. Corequisite: BIOL 5013. Prerequisites: BS/BA in Biological Sciences (or equivalent); completion of BIOL 4010 (or any upper-division writing course) with a passing score, or equivalent experience in analysis and writing; consent of instructor. (lecture/activity, 2/4 hours)

PURPOSE: *Advanced Writing in Environmental Science* provides a realistic simulation of what biology and environmental graduates can experience when they go to work for a government agency, private firm, or non-governmental organization (NGO). Most college graduates, even those with outstanding academic records, are ill-prepared for the transfer from college to the often team-oriented setting of the environmental work place. They are often ill-prepared in the areas of project management and technical writing, a particularly desirable skill set for most environmental employers. Therefore, the purpose of *Advanced Writing in Environmental Science* is to ensure that graduates of the *M.S. in Ecology and Sustainability* program gain the necessary experience to adapt more effectively and rapidly to the environmental work place.

LEARNING OBJECTIVES: Students who complete this course should:
1) understand and have the basic skills of project management, project tracking, and report writing, and if time permits, perhaps some grant writing;
2) know how to work effectively in a team-setting to address a complex issue;
3) have analytical and writing skills that are sought-after by government agencies.

TEXTS AND RESOURCE MATERIALS: There is no single textbook suited to this course. However, I asked the bookstore to stock Angelika H. Hofmann's *Scientific Writing and Communication: Papers, Proposals, and Presentations*[1]. Another good textbook is Jan Pechenik's *A Short Guide to Writing About Biology* (8th edition, 2013, Pearson, New York, NY. 288). The latter is particularly recommended for those who are unsure on how to refer to statistics and statistical tests in their writing. Other useful reference texts on scientific and technical writing will be made available in N202.

[1] The 2nd edition (2014), Oxford University Press; 3rd edition is due out in late 2016.

ORIGINAL CONCEPT: Over a period of 15-16 weeks, students will work together for at least 6 hours per week in addressing an environmental issue that has significance at the regional, state, or national levels as a class project in applied environmental review. Under the guidance of the instructor, they will work as a structured team to conduct a comprehensive environmental review of a particular topic as if it is a pressing public policy issue in need of immediate attention; imagine a scenario where Congress asks the US Fish and Wildlife Service or the Environmental Protection Agency to provide a report in say 3 to 6 months on a matter of national interest. They will approach the topic with open minds and lack of bias. They will conduct comprehensive literature searches to develop a clear and comprehensive understanding of the issue in question. To the extent possible, they will conduct syntheses and analyses of existing data to gain new insights. Such class projects, if executed properly, can be published in the peer-reviewed literature and students will be strongly encouraged to pursue publication when appropriate.

COURSE HISTORY: The class is offered every other year. In 2008, the first year BIOL 5010 was offered, the class worked on a Comprehensive Conservation Plan (a CCP) for the San Luis National Wildlife Refuge Complex (San Luis NWRC). The class worked again with the San Luis NWRC in 2010, 2012, and 2014—on various management, inventory, and/or monitoring plans. A few students from those classes have gone on to appointments with the US Fish and Wildlife Service, partly as a result of their work ethic and writing performance in the class. The hands-on experience of helping to write real documents for the US Fish and Wildlife Service really mattered.

THIS YEAR: The class project this year will again be conducted in partnership with the San Luis NWRC, whose main office is on the San Luis NWR just north of Los Banos. The primary writing challenge for the class will be a web-based outreach tool. There will be more information on this later today when we meet with the USFWS. What each member of the class will be working on will be determined in the coming weeks. This will depend to some extent on the expertise and capabilities of the members of the class.

SCHEDULE: Most Wednesdays and Fridays, we will be meeting from 1 to 4 p.m. in N-202, the Biology Dept. Library; N-202 will be our 'home room' or 'team office' for the semester. Some of you may already have used this room, but if not, please know that there are special restrictions on its use. Please let me know whether or not you already have a key to N-202. We may also use other rooms as needed, including N-201 on Friday afternoons. The first few weeks of the class will involve coordination and planning with USFWS personnel, plus background review on technical writing, project orientation, information gathering and bibliographic research.

GRADING: There will be no written exams. Rather, final grades will be determined through a formal assessment process at the conclusion of the class project, a process that involves grading of work products and overall performance. This will involve students, USFWS personnel, and your instructor. Ratings will be based on completion of team assignments, productivity, communication skills, meeting deadlines, organizational abilities, leadership, and other factors.