

REQUEST FOR APPROVAL TO USE W-DESIGNATION

LSC # 14-78c
Action App 10/9/14

COVER SHEET: Request for Approval to Use W-Designation

TYPE I. PROFESSOR COMMITMENT

- Professor _____ Phone _____
- Writing Workshop? (If not at IUP, where? when?) _____
- Proposal for one W-course (see instructions below)
- Agree to forward syllabi for subsequently offered W-courses?


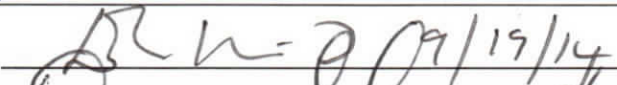

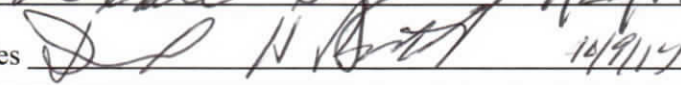
TYPE II. DEPARTMENT COURSE

- Department Contact Person Dr. David Janetski Phone 724-357-3123
- Course Number/Title BIOL 362/Ecology
- Statement concerning departmental responsibility
- Proposal for this W-course (see instructions below)

TYPE III. SPECIFIC COURSE AND SPECIFIC PROFESSOR(S)

- Professor(s) _____ Phone _____
- Course Number/Title _____
- Proposal for this W-course (see instructions below)

SIGNATURES:

- Professor(s)  UWUCC Chair 10/28/14
- Department Chairperson  9/19/14
- College Dean  9/25/14
- Director of Liberal Studies  10/9/14

COMPONENTS OF A PROPOSAL FOR A WRITING-INTENSIVE COURSE:

- I. "Writing Summary"--one or two pages explaining how writing is used in the course. First, explain any distinctive characteristics of the content or students which would help the Liberal Studies Committee understand your summary. Second, list and explain the types of writing activities; be especially careful to explain (1) what each writing activity is intended to accomplish as well as the (2) amount of writing, (3) frequency and number of assignments, and (4) whether there are opportunities for revision. If the activity is to be graded, indicate (5) evaluation standards and (6) percentage contribution to the student's final grade.
- II. Copy of the course syllabus.
- III. Two or three samples of assignment sheets, instructions, or criteria concerning writing that are given to students. Limit: 4 pages. (Single copies of longer items, if essential to the proposal, may be submitted to be passed among LSC members and returned to you.)

Please number all pages. Provide one copy to Liberal Studies Committee.

Before you submit: Have you double-checked your proposal against "The Liberal Studies Committee's Most Frequently Asked Questions"?

Received

SEP 25 2014

Liberal Studies

WRITING SUMMARY – BIOL 362 (Ecology)

Biology 362 (Ecology) is proposed for renewal as a writing intensive “W” course. Ecology is taught every other year during the Spring semester. Ecology is a required course for Biology Majors on the Ecology, Conservation, and Environmental Biology track. This course typically consists of juniors and seniors pursuing careers in the Natural Sciences. As such, to be competitive for permanent employment as scientists, it is critical for students to be able to effectively communicate their scientific findings through writing.

Two primary types of writing will occur in Biology 362:

1. SCIENTIFIC WRITING TO ORGANIZE INFORMATION, COMMUNICATE AN ARGUMENT WITH SUPPORTING EVIDENCE, AND EVALUATE PEERS

Each student will be required to write a 6-8 page review paper on an ecological topic of their choosing (40% of total grade). This project will be the central writing assignment of the course. Students will improve a variety of skills critical for effective scientific writing. Specifically, students will improve skills related to performing a literature search, glean information from scientific papers, constructing an argument and supporting it with evidence, structuring a scientific paper, and evaluating their peers. Each of these skills is essential to professional writing in the natural sciences.

Students will be encouraged to start the writing process by identifying a central question relevant to Ecology. Next, students will consult 8-10 relevant peer-reviewed articles from the scientific literature. Using the information from these scientific articles, each student will then make a claim (or take a stance) related to their study question. The purpose of the paper is then to make a persuasive argument (supported by evidence) for the claim chosen by the student. The target audience for the paper will be the student’s peers. The structure of the paper will follow that of a typical scientific literature review, including Title, Affiliation, Abstract, Introduction, Methods, Results (including Tables and Figures), Discussion, Conclusion, Acknowledgements, and References.

Grading of review papers will occur in three phases intended to maximize feedback to the students and provide opportunities to critically evaluate their peers. The first phase will be student peer review (see page X for sample directions). Each student will read and grade two of their peer’s papers using a standard rubric. Points for the first phase will be awarded based on peer evaluations of each paper (~1 page each) and on each student’s participation in the peer review process. The second phase will be instructor review. Papers revised according to peer comments will be submitted to the instructor, after which the instructor will provide feedback. Points for the second phase will be awarded according to the standard rubric. The third and final phase will occur after students have revised their papers based on instructor feedback. Students will hand in their revised papers to the instructor for final evaluation and grading. No additional revisions will be permitted after the third phase.

2. TECHNICAL REPORTS

Students will be required to submit lab reports following each of the four Data Analysis labs. The focus of lab reports will be on the Methods and Results sections of a scientific paper. Also, students will learn to create publication-quality figures and tables. Lab reports will be 3-4 pages in length and consist of a short introduction, methods, results, and brief discussion/conclusion. After receiving instructor feedback on the first draft of their lab report, students will be permitted to re-submit one revised draft for re-grading. Points for re-submitted lab reports will be awarded based on the student's responses/revisions to the instructor's comments on the original draft.

- Professors:** Dr. David Janetski, Weyandt 11B, 7-3123, janetski@iup.edu
Office: TBD
- Textbooks:** Cain, M.L., W.D. Bowman, and S.D. Hacker. 2011. Ecology, 2nd edition. Sinauer Associates, Inc., Sunderland, Massachusetts.
- Lab Manual:** Newell & Gendron - purchase from ProPacket (1176 Grant Street)

Exams and Writing Assignments:

Exams (40%): Two exams will combine short-answer questions (e.g. matching, definitions, short essays) with a few essay questions requiring longer and more thoughtful responses. Both the lecture and laboratory material will be covered. The exams will be worth 100 points each. The midterm exam will be given during the regularly scheduled laboratory period. The final exam will be given during exam week.

Review Paper (40%): Each student is required to write a 6-8 page review paper on an ecological topic of their choosing (i.e., something you care a lot about!). Students should start the writing process by identifying a central question relevant to Ecology. Next, students should consult 8-10 relevant peer-reviewed articles from the scientific literature. Using the information from these scientific articles, each student should make a claim (or take a stance) related to their study question. The purpose of the paper is then to make a persuasive argument (supported by evidence) for the claim chosen by the student. The target audience for the paper is the student's peers. The paper needs to be structured as a scientific literature review, including Title, Affiliation, Abstract, Introduction, Methods, Results (including Tables and Figures), Discussion, Conclusion, Acknowledgements, and References.

To improve student writing, the grading of research papers will occur in three phases. The first phase will be student peer review. Each student will read and grade two of their peer's papers using a standard rubric. Points for the first phase will be awarded based on peer evaluations of each paper and on each student's participation in the peer review process. The second phase will be instructor review. Papers revised according to peer comments will be submitted to the instructor, after which the instructor will provide feedback. Points for the second phase will be awarded according to the standard rubric. The third and final phase will occur after students have revised their papers based on instructor feedback. Students will hand in their revised papers to the instructor for final evaluation and grading. No additional revisions will be permitted after the third phase.

Lab Reports (20%): Students will be required to submit lab reports following each Data Analysis lab. Reports must be 3-4 pages and consist of a short introduction, brief methods, results, and discussion. Students will be permitted to re-submit one revised draft of each lab

report for re-grading. Points for re-submitted lab reports will be awarded based on the student's responses/revisions to the instructor's comments on the original draft.

Attendance Policy

While attendance is considered important in lecture and essential in lab, grades are generally based on your performance, not your presence. In order to turn in a lab report, however, you must have contributed to the collection of data. In effect, this means that missing a lab will result in a grade of zero for the lab assignment. Exceptions to this rule against using someone else's data can be made at the discretion of the instructors for reasons of illness or personal emergency.

Plagiarism

Plagiarism is to represent someone else's words or ideas as one's own. In an academic community this intellectual dishonesty is a very serious ethical offense. In this course **plagiarism will result in a failing grade** for the assignment (in the case of relatively "minor" cases) or for the course.

Plagiarism includes copying another person's work. This means direct quotations without quotation marks (even if you cite the source).

Another common form of plagiarism involves paraphrasing in which the plagiarist changes a few of the words:

Original version: Gallinaceous birds are remarkable and perhaps unique in the animal kingdom for the extent and diversity of the systems of food signaling they have evolved.

Plagiarized version: Chickens are remarkable and probably unique for the extent and diversity of food signaling systems they exhibit (Marler et al. 1986).

Plagiarism also includes using someone else's ideas without giving them proper credit. In the scientific literature credit is given through the use of a citation. Here are some examples of **properly** cited information:

Marler et al. (1986) argued that Gallinaceous birds have an unusually large repertoire of food signaling calls.

or

Gallinaceous birds have an unusually large repertoire of food signaling calls (Marler et al. 1986).

In this course you will use the “name-date” system for citations.

Important: including a citation does not justify plagiarizing. The citation only indicates where the information came from; but the ideas must be expressed in your own words.

The only exceptions are direct quotes (in quotation marks of course), but these should be used sparingly, if at all, in the writing assignments you do for this class.

DATE	LECTURE TOPIC	READING
Aug 27	Introduction: Doing Ecology	Chapter 1 (Review Chap. 2)
Aug 29	Evolution & Ecology	Chapter 6
Sep 3	Evolution & Ecology	Chapter 6
Sep 5	Physiological Ecology	Chapters 4 & 5
Sep 10	Physiological Ecology	Chapters 4 & 5
Sep 12	Behavioral Ecology	Chapter 5
Sep 17	Life History	Chapter 7
Sep 19	Population Distribution and Abundance & Niche	Chapters 3 & 8
Sep 24	Population Growth & Regulation	Chapter 9
Sep 24	Exam 1 (covers material through Sept. 19)	
Sep 26	Population Growth & Regulation	Chapter 9
Oct 1	Population Dynamics	Chapter 10
Oct 3	Population Dynamics	Chapter 10
Oct 8	Competition	Chapter 11
Oct 10	Competition	Chapter 11
Oct 15	Predation & Herbivory	Chapter 12
Oct 17	Predation & Herbivory	Chapter 12
Oct 22	Parasitism	Chapter 13
Oct 24	Mutualism & Commensalism	Chapter 14
Oct 29	Community Structure	Chapter 15
Oct 29	Exam 2 (covers material through Oct 24)	
Oct 31	Changes in Communities	Chapter 16
Nov 5	Biogeography	Chapter 17
Nov 7	Species Diversity in Communities	Chapter 18
Nov 12	Species Diversity in Communities	Chapter 18
Nov 14	Production	Chapter 19
Nov 19	Energy Flow and Food Webs	Chapter 20
Nov 21	Nutrient Supply & Cycling	Chapters 21 & 24
Dec 3	Conservation Biology	Chapter 22
Dec 5	Landscape Ecology	Chapter 23
Dec 10	Final Exam (10:15-12:15)	

LABORATORY SCHEDULE‡	
DATE	TOPIC
Aug 27*	Citizen Science: Monitoring Bumble Bees and Dragonflies
Sep 3*	Distribution of Leaf Galls I
Sep 10	Plant Competition Set Up & Distribution of Leaf Galls II
Sep 17*	Microclimates and Optimal Leaf Size
Sep 24	EXAM 1
Oct 1	Plant Competition Data Collection & Life Tables and Survivorship Curves
Oct 8*	Forest Succession Data Collection
Oct 15*	Mark and Recapture I Data Collection
Oct 22	Interspecific Competition – Computer Simulation
Oct 29	EXAM 2
Nov 5	Plant Competition Discussion
Nov 12	Mark and Recapture II – Computer Simulation & Data Analysis
Nov 19	Ecological Succession Data Analysis and Discussion
Dec 3	“Summer World” – Discussion & Essay
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‡ Schedule subject to change depending on weather conditions and other factors	
* Outdoor labs - dress appropriately	

SAMPLE WRITING ASSIGNMENTS

Sample topics for student review papers:

- 1. Evolution of sexual dimorphism in birds**
- 2. Economic impacts of invasive species**
- 3. Relationship between global climate change and biodiversity of coral reefs**
- 4. Influence of technology and resource use by humans on the carrying capacity of Earth**
- 5. Relationship between water quality and human poverty**

Sample laboratory reports:

- 1. Statistically evaluate the dispersion of a plant species in a forest landscape**
- 2. Construct and describe a life table**
- 3. Calculate and present the results of a Mark-Recapture study**
- 4. Analyze the spatial structure of fish communities among a series of lakes**

Summary Chart for Writing Assignments*

A. Writing Assignments - BIOL 362 (Ecology) (Spring 2015, Instructor - Dr. David Janetski)					
Assignment Title	# of Assignments	# of total pages	Graded (Yes/No)	Opportunity for Revision (Yes/No)	Written Assignment represents what % of final course grade
Review Paper	1	6-8	Yes	Yes	35%
Peer Review	2	2	Yes	No	5%
Lab Reports	4	12-16	Yes	Yes	20%
Totals	7	20-26	NA	NA	60%

B. Examinations (Complete only if you intend to use essay exams/short answers as part of the required number of pages of writing.)			
Exams	Approx.% of exam that is essay or short answer	Anticipated # of pages for essay or short answer, or approx. word count	Exam constitutes what % of final course grade
1.	50%	2	20%
2.	50%	2	20%
3.			
Totals			

**Total writing assignments should contain at least 5000 words (approximately 15-20 typed pages) in two or more separate assignments; written assignments should be a major part of the final grade—at least 50% or more.*

Biology Department Commitment to Type II Writing Intensive Courses:

The Biology Department is committed to providing students with writing intensive course experiences. The department chair will assign instructors to Type II courses. If the designated instructor has not attended a writing workshop, the chair and the department undergraduate curriculum committee will provide the instructor with a current course syllabus and explain the writing intensive course requirements as well as current theory and practice in writing-across-the-curriculum. The instructor will also be encouraged to attend a writing workshop. Additionally, the instructor will be asked to submit samples of student writing to the department undergraduate curriculum committee at the end of the semester for assessment purposes. The undergraduate curriculum committee will work with the chair to ensure that suitable instructors are assigned to teach Type II designated courses.