

Instructions for Writing Assignments
BIOS 202 ♦ Spring 2006 Second Half: Dr. Meffert

Due dates: Paper 3: Wednesday, April 5, 2006, 10 a.m.
Paper 4: Monday, April 24, 2006, 10 a.m.

Length: 700-800 words (not including references) (use your word processor to count words and include word count at the top of your paper)

Source: Find an article that explores a general subject in population biology (*e.g.*, evolution, ecology, or behavior). Below is a suggested list of journals (you're not restricted to these, but check to make sure if you want to use something else):

- Science
- Nature
- Proceedings of the National Academy of Sciences
- Proceedings of the Royal Academy of Science
- American Naturalist
- Evolution
- Conservation Biology
- Conservation Genetics
- Animal Behaviour
- Ecology
- Heredity
- Systematic Zoology
- Oecologia
- Behavioral Ecology and Sociobiology
- Zoo Biology

If you select an article from a journal that is not on this list, email me (lmeffert@rice.edu) for official approval of the source.

Assignment: Write an essay in your own words (do *not* copy sentences out of the paper) that critiques the article you have read for an audience of your BIOS 202 classmates. Be sure to begin by briefly summarizing the article. Next, analyze those aspects of the article that were clear or confusing to you. Conclude by speculating about broader implications and future directions for study. A suggested plan for your essay is shown below:

First 1-2 paragraphs: Summarize the objectives, methods, results, and conclusions as the authors have presented them. This section should reflect your understanding of the research presented in the article.

Next paragraph: (“The Good”) Identify and characterize the useful features of the article. That is, what aspects of the article seemed particularly strong? Did you find a certain section of the article (*e.g.*, introduction, methods) to be particularly helpful?

Next paragraph: (“The Bad and the Ugly”) Identify and characterize the confusing aspects of the article. That is, did you find any weaknesses in the study? Was any particular section confusing to you? Why?

Last paragraph: Conclude your summary. Speculate about the broader implication of this research (*e.g.*, the results might represent breakthroughs, or the results could have far-reaching

implications) and try to identify the future directions of this research (go ahead and be creative).

Model Paper: An annotated sample paper is available on the BIOS 202 website. The paper critiques a *Zoo Biology* article from the Meffert lab. The model illustrates the kinds of analyses that you are expected to make, but the content of your paper will, of course, vary based on the article you choose to review.

Plagiarism: Do not copy any portion of a paper into your essays. Plagiarism interferes with the main purpose of having you prepare these papers, which is to get you to synthesize what you have read and then explain it and analyze it **IN YOUR OWN WORDS**.

References: The first time you refer to your research article, be sure to parenthetically reference it using the author(s)' name(s) and publication date, as shown below:

“ A recent study found that doing things rather than memorizing trivia helps educate students (Gomer and Meffert, 2002).”

At the end of your essay, provide a complete citation, giving authors, year, article title, journal name, and journal volume and page numbers, as shown below:

Rosin-Bouffay, C., Jang, W., Caprette, D.R., and Gomer, R.H. (2000) A precise group size in *Dictyostelium* is generated by a cell-counting factor modulating cell-cell adhesion. *Molecular Cell* **6**, 953-959.

Format:

1. Hand in a **stapled printed copy** in class (see late policy below)
2. Include at the top of the page:
 - your name
 - Bios 202
 - date
 - word count (use your word processing program)
3. Provide a copy of the article stapled to the back of your paper.

Late paper policy: For each day the paper is late (submitted in the 24 hour period after 11 a.m. on the due date), 8 points will be deducted from your grade.

Grading criteria: A grading rubric is available on the BIOS 202 website. The criteria on this rubric will be used by the writing mentors in grading your papers.

Writing mentors: : Contact your assigned mentor if you need assistance at any time in the writing process. One or two mentors will also staff the Meyer conference room in the RMC from **8 to 10 p.m. on Tuesday, April 4**, and from **9 to 11 p.m. on Sunday, April 23**.

BIOS 202 ♦ Dr. Meffert ♦ Papers 3 and 4

Date _____

BIOS 202 Comments for _____

Strengths:

	EXCELLENT	GOOD	POOR	
Purpose and aims of article	___/5	___/3	___/1	
Discusses how results lead to conclusions	___/4	___/2	___/0	
Analyzes those aspects of article that are clear or confusing to student reader	___/4	___/2	___/0	
Organization and style	___/4	___/2	___/0	
Broader implications & future directions	___/4	___/2	___/0	
Format requirements	___/4	___/2	___/0	
TOTAL				___/25

Suggestions for improvement:

Grading Criteria: Dr. Meffert (Papers 3 and 4)

	excellent (max pts)	good (mid pts)	low (low pts)
• Purpose and aims	Accurately and completely communicates purpose and aims of article.	Inaccurately or incompletely identifies either purpose or aims.	Fails to identify purpose or aims.
• Discusses how results lead to conclusions	Identifies main argument of paper and how authors used results obtained to argue for conclusions.	Incomplete description of argument or how authors used results to arrive at their conclusions.	Little or no accurate description of argument or authors' conclusions.
• Analyzes those aspects of article that are clear or confusing to student reader	Analyzes whether the student found particular aspect(s) helpful or inadequate for him/herself as audience.	Simple evaluation of article (good, difficult, etc.) without analysis.	Fails to analyze whether the student found particular aspect(s) helpful or inadequate for him/herself as audience.
• Organization and style	Organizes essay to assist reader's understanding. Paragraphs have topic sentences; easy for reader to access. Correct use of grammar.	Poor organization or poor style.	Poor organization and style.
• Broader implications and future directions	Speculates about broader implications of research and future directions for study	Fails to speculate about broader implications of research OR future directions for study.	Fails to speculate about broader implications of research AND future directions for study
• Format	Stapled copy submitted with: <ul style="list-style-type: none"> • Your name • BIOS 202 • Date • Word count • Full reference • Copy of article. 	Missing one required formatting criterion.	Missing two or more required formatting criteria.