

SYLLABUS
Biology and Microbiology 26-111
Spring 2006
T 8:00 - 10:00
Halsey Science 367

Instructor: Dr. Todd Sandrin
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Office Hours: Wednesdays and Fridays 8:30 - 9:30 am
Many other times available by appointment!
Anytime by phone or email
Anytime office door is open

Course Description (from Bulletin): **Biology Orientation** An introduction to the cultural aspects of biological sciences for students declaring or considering a major in Biology or Microbiology. Discussion topics will include: current 'hot' fields and employment opportunities; roles and responsibilities of scientists in society; professional ethics; scientific communication; planning (career choices, course selection, research experience) and an introduction to department faculty, staff, and facilities. Students are encouraged to take this course as early as possible in their academic program.

Course Objectives:

By the conclusion of this course, you should be able to:

- 1) detail how biologists make inquiries into biological phenomena and how these inquiries influence society
- 2) draft a concise paper describing a particular career in the biological sciences
- 3) give a professional presentation on a career in the biological sciences
- 4) use internet and library resources to locate information relevant to your paper and presentation
- 5) craft a professional resume and cover letter to pursue employment in the biological sciences
- 6) implement a curriculum plan that details all of the courses you are required to take to graduate by your intended graduation date

Texts:

Required:

Allen G, Baker J. 2001. Biology: Scientific Process and Social Issues. Fitzgerald Science Press: Bethesda, MD.

Camenson B. 1999. Great Jobs for Biology Majors. VGM Career Horizons: Chicago, IL.

McMillan VE. 2001. Writing Papers in the Biological Sciences. Bedford: Boston, MA.

Assignments:

1. Attend every class and participate in each discussion. A significant portion of your final grade will be determined by your attendance and participation. Both attending and participating will ensure that you benefit as much as possible from this course. You will be given ample opportunity to ask questions and interject your thoughts throughout the course. Information will be provided in this course that you will not find in any other class on this campus and can prove vital in helping you discern: 1) whether you want to pursue a major in Biology or Microbiology and 2) what type of career you want to pursue. For these reasons, attendance is mandatory. The class meets only once per week. **Two (2) unexcused absences will result in loss of ALL points given for attendance.**

2. Write an essay describing why you are interested in the life sciences. Within 3-5 double-spaced, typewritten pages, compose a narrative explaining why you are considering becoming a biologist. Be creative. Discuss your past experiences with biology and how they did (or did not) lead you to pursue a career in the life sciences. Explain what skills and aptitudes you have that you feel will help you become a brilliant biologist. Detail career and life goals you intend to reach through your work in the life sciences. How will you change the world through biology?

3. Take 2 quizzes that will be based on discussion material and reading assignments. Background readings in this course will help you formulate questions to ask and thoughts to add as you participate in discussions.

4. Write a paper (4-5 double-spaced, **word processed** pages) that describes a career in biology of interest to you. Items that need to be covered include:

- name of the position/job
- a description of the duties and responsibilities a person with this job has
- a description of the type and amount of education needed (high school diploma, B.S., M.S., M.B.A., M.D., Ph.D. etc.)
- description of the job market for this field (i.e., How easily is a person interested in this career going to find an employer offering this type of position?)
- expected salary range
- a detailed description of potential daily/routine activities of a person with this job
- how an interested individual finds an employer and establishes contacts to get the

desired job

You must **include at least 4 references**. You are encouraged to interview people with the job of interest to you and cite them as references. Use no more than two (2) internet references. Cite all references in the text of your paper using the Name-Year/Harvard System described in detail in pp. 107-117 of the McMillan text. Prepare a literature cited section that lists each reference using the Council of Biology Editors (CBE) format described in pp. 117-125 of the same text.

As you can see from the point breakdown of this assignment below, **a significant portion of your grade will be based on the quality of your writing**. Points will be deducted from your score for spelling errors, improper grammar and sentence structure, etc. To be sure you earn as many points as possible on this assignment, you are encouraged to: 1) have at least 2 classmates read a rough draft of your assignment and offer suggestions and 2) ask an individual in the writing center (<http://www.english.uwosh.edu/wcenter/>) to read a rough draft of your assignment and offer suggestions.

Evaluation of Career in Biology Paper

<u>Item</u>	<u>Value (Points)</u>
Topic (Due 3/8)	5
Cover sheet stapled to paper with your name & name of career	5
Spelling, grammar, and sentence structure	25
Content, organization	25
References (use of appropriate resources; formatting)	15
Total	75

5. Give a presentation that describes a career in biology of interest to you. The presentation should be 12-17 minutes long. ***Five (5) points will be deducted from your final score for every one (1) minute your presentation falls short of 12 minutes and for every minute your presentation exceeds 17 minutes.*** Five minutes following the presentation will be reserved for questions. **Use high-quality visual aids** (preferably Microsoft PowerPoint, but well-prepared, legible overheads will suffice). The purposes of this assignment are: 1) to expose the entire class to relevant information about a variety of career possibilities, and 2) to hone your public speaking/oral communication skills. You will already have conducted the necessary research for this presentation as you wrote your career paper. Be sure to cover the points described above for the paper.

Evaluation of Presentations

<u>Item</u>	<u>Value (Points)</u>
Quality of Visual Aids (easy to read, no misspellings)	15
Content, organization	35
Delivery (show enthusiasm; DO NOT READ content)	25
Total	75

6. Devise a curriculum plan. Everyone would like to graduate on-time. One of the first and most important steps in achieving this goal is to devise a realistic curriculum plan. This is a list

of all of the courses you need to take in order to graduate by the date you desire. Submit a list of every course you must take and in what year and semester you intend to take these courses. Few courses are offered every semester; in fact, some are offered very rarely. Be sure every course will be offered in the semester you hope to take it before placing it on your list. Check with the undergraduate Bulletin and/or your academic adviser to be sure classes in question are offered when you would like to take them.

7. Compose a cover letter and accompanying resume for a current job opening in the career of interest to you. With your cover letter and resume, include a copy of the job advertisement that you found in the newspaper, a magazine, a journal, the internet, etc. Be sure to tailor the cover letter and resume to the required qualifications listed in the advertisement. Be sure that your cover letter and resume address the strengths that make you an ideal candidate for the job.

Course Evaluation:

<u>Assignment</u>	<u>Value (Points)</u>
Essay (“Why I am Interested in the Life Sciences”)	75
Attendance and Participation	25
Reading Quizzes (2 @ 100 pts. each)	200
Career Paper	75
Career Presentation	75
Curriculum Plan	25
Cover Letter and Resume	25
Total	500

Determination of Course Grade:

<u>% of total points you accumulate</u>	<u>Grade you earn</u>
100-94	A
93-90	AB
89-83	B
82-79	BC
78-72	C
71-67	CD
66-60	D
less than 60	F

Policies

Late Assignments: Late assignments will be accepted only under extremely extenuating circumstances. In such cases, late assignments will be given ½ credit.

Incomplete Grade Policy:

Incomplete grades will be given only in special circumstances as outlined in University policy as stated on page 27 of the University of Wisconsin Oshkosh Undergraduate Bulletin.

Academic Integrity:

Academic dishonesty in any form will not be tolerated. Any instance of such will be dealt with according to relevant University policies. Please note that plagiarism constitutes academic dishonesty and will be treated accordingly. If you are unsure what constitutes plagiarism, contact the instructor.

Special Needs and Accommodations:

Students needing special accommodations or special services should inform the Instructor by providing a copy of their Accommodation Recommendation (AR).

Topic Outline (subject to change)

Week	Topic	Reading	Assignment due
1 (Jan. 31)	Why You are Here: An Introduction to the Life Sciences; <u>Film</u> : "Not So Wild a Dream"		
2 (Feb. 7)	Why We are Here and What We Do: An Introduction to the UW-Oshkosh Biology and Microbiology Dept.; <u>Film</u> : "On Becoming a Scientist"		Preliminary Essay due
3 (Feb. 14)	Asking Questions in Life Science: Inquiry <u>Film</u> : Intimate Strangers: The Tree of Life	Allen and Baker, Ch. 1	
4 (Feb. 21)	What Exactly is Science and How is it Done?	Allen and Baker, Ch. 2	
5 (Feb. 28)	The Tool of the Trades: Hypothesis Testing	Allen and Baker, Ch. 3 and 4	
6 (Mar. 7)	Who Cares about Science Except Science-Geeks? <u>Film</u> : Genetic Engineering	Allen and Baker, Ch. 5	Career Paper & Presentation Topic due

7	Spring Break!		
8 (Mar. 21)	Scientific Writing and Research; Curriculum Plan; Resume Writing (8-9 am) Christina Lambie from Career Services visits	McMillan, Ch. 1, 3, 5-7, 8, 10; Allen and Baker, Appendix 1; Camenson, Ch. 1, 2	
9 (Mar. 28)	Quiz #1; Academic Advising Ron Cardo from Academic Advising visits (9-10 am)		Reading Quiz 1
10 (April 4)	Presentation Guidelines; Library Skills Polk Library (9-10 am)	Camenson Ch. 3-4.	Curriculum Plan due
11 (April 11)	Careers in the Life Sciences, Time and Stress Management (Mike Altekruise from the Counseling Center visits from 8 - 9 am); Student Presentations	Camenson Ch. 5-10	Career Paper due; Career Presentations due
12 (April 18)	Student Presentations	Camenson Ch. 5-10	Career Presentations due; Cover Letters and Resumes due
13 (April 25)	Student Presentations	Camenson Ch. 5-10	Career Presentations due
14 (May 2)	Student Presentations	Camenson Ch. 5-10	Career Presentations due;
15	Wrap-up and Quiz #2		Reading Quiz 2

(May 9)			
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