

GENERAL EDUCATION COURSE PROPOSAL
UNIVERSITY OF MARY WASHINGTON

Use this form to submit **EXISTING** courses for review. If this course will be submitted for review in more than one category, submit a separate proposal for each category.

COURSE NUMBER:	FSEM100EE		
COURSE TITLE:	SCIENTIFIC DISCOVERIES		
SUBMITTED BY:	Deborah Zies	DATE:	1/30//08
<i>This course proposal is submitted with the department's approval. (Put a check in the box to the right.)</i>			<input checked="" type="checkbox"/>
<i>If part of a science sequence involving two departments, both departments approve.</i>			

THIS COURSE IS PROPOSED FOR (check one).

First-Year Seminar <i>(indicate in the rationale if this will also count for major credit)</i>	<input checked="" type="checkbox"/>
Quantitative Reasoning	<input type="checkbox"/>
Global Inquiry	<input type="checkbox"/>
Human Experience and Society	<input type="checkbox"/>
Experiential Learning	<input type="checkbox"/>
Arts, Literature, and Performance: Process	<input type="checkbox"/>
or	<input type="checkbox"/>
Appreciation	<input type="checkbox"/>
Natural Science <i>(include both parts of the sequence)</i>	<input type="checkbox"/>

NOTE: See the report entitled "General Education Curriculum as Approved by the Faculty Senate," dated November 7, 2007, for details about the general education categories and the criteria that will be used to evaluate courses proposed. The report is available at www.jtmorello.org/gened.

RATIONALE: Using only the space provided in the box below, **briefly** state why this course should be approved as a general education course in the category specified above. *Attach a course syllabus.* **Submit this form and attached syllabus electronically as one document to John Morello (jmorello@umw.edu).** All submissions **must** be in electronic form.

This course has already been approved and taught as a writing intensive Freshman Seminar. It provides first year students with the opportunity to explore the primary research in biology over a wide range of topics. The course begins by providing the tools needed for discussion and creative thinking by introducing them to reading and writing within the sciences. Students will be required to read, interpret, and form opinions on primary, accessible research. Through this process they learn about the various research avenues in biology, the people behind the scientific discoveries, and the life of the scientist. Students engage in active learning by discussing the relationship between past discoveries, present research, and the future. Discussions allow students to explore and debate current views and formulate opinions on important topics in biology today, including stem cell research, cloning, evolution, and conservation.

FSEM100E

Famous Scientific Discoveries in Biology

How Scientists of the Past Impact Our Lives Today!

Instructors

Professor: Dr. Deborah Zies
Office: Jepson 330
Phone: 654-1435
Email: dzies@umw.edu
Office Hrs: MWF 10:00 – 11:00 am
MWF 2:00 – 3:30pm
Others by appt.

Dr. Jay McGhee
Jepson 300
654-1402
jmcghee@umw.edu
M,W 2:00 - 4:00 p.m.
Th 5:00 – 6:00 p.m.
Others by appt.

Course Description:

This course will provide students with a broad overview of different fields of study within the biological sciences and place major scientific discoveries within the context of everyday life. Students will develop skills in reading, writing about, and discussing scientific literature. The primary goal will be to enable students to understand the landmark discoveries of the past and to make connections between those discoveries, the ways in which they affect our lives today, and how they help to shape our hopes for the future.

Course Objectives:

Provide tools necessary for reading and writing about scientific research
Be able to read and write about primary research
Be able to interpret and form opinions on biological issues
Provide the opportunity to discuss the relationship between past discoveries, present research, and the future
Form and defend your own opinions regarding important topics in biology today

Course Grade:

Assignment	Points	Percentage
Discussion Participation:	200	20%
Discussion Questions	50	5%
Blog Participation	50	5%
Topic Proposal:	50	5%
Synopsis 1:	50	5%
Synopsis 2:	100	10%
Synopsis 3:	100	10%
Synopsis 4:	150	15%
Interview	100	10%
Book Report	150	15%
Total	1000	100%

Grade Determination: (Your total points/1000) X 100

Grading Scale:

A	94-100	C+	77-79
A-	90-93	C	74-76
B+	87-89	C-	70-73
B	84-86	D+	67-69
B-	80-83	D	60-66
		F	<60

Honor Code

You are expected to abide by the UMW Honor Code. Unless otherwise specified, all tests, quizzes and assignments are to be completed independently and pledged. All assignments will have a place for you to accept or initial the pledge. Signature/initials are required for assignments to be graded.

Discussion Participation

This course revolves around the discussion of current issues in biology. The majority of classes will be discussion-centered, with either the instructor or a student leading discussion for that period. Each week the instructors will assess the contribution each individual has made to the discussion, thus it's important to come to class ready to provide well-reasoned arguments after carefully reading the provided materials!

Participation in class discussion includes leading discussions during the course of the semester. Teams of two will be held responsible for leading at least 2 class discussions. In most cases, this will include a 45-minute introduction of a topic of interest to the students, which may include a Powerpoint presentation, video, case studies, etc.; along with a 2nd 45-minute period of discussion addressing some aspect of the of the topic of interest. Students will be expected to develop discussion questions for articles regarding their topic. Details will be discussed further in class.

Discussion Questions

To ensure careful reading of the provided materials, students will be required to turn in a set of discussion questions for every article provided. Discussion question answers should be typed, and must be turned in at the beginning of class on the day it is due.

Blog Participation

Starting early in the semester, a blog discussion will be held each Friday discussing the topics that were covered for the week. Initial posts will be made by discussion leaders describing what they think are the most important or interesting issues of their topic. All members of the class will be expected to post in response. Responses should be of substantial content (this does not mean long, it means your post should reflect your considered thought about the issue). You may earn up to 5 points for your contribution to each blog topic.

Posts will be submitted on the course Blog Space (<http://umwblogs.org/>).

Topic Proposal

The topic proposal is your chance to steer the direction of this seminar! For this assignment, you will be expected to propose a topic for the class to pursue during the course of the semester. Within this proposal you will make an argument for a particular subject within the field of biology.

Synopses

The synopses should relate material from a current article(s) to any of the seminal papers discussed in class for a given section. The paper should be structured such that you introduce the general topic, discuss the current article (its theme, what was done, and its relevance), and then discuss how this article stems intellectually from one of the seminal papers discussed in class.

You must turn in your current article(s) to receive any credit!!

Interview

The interview provides you the opportunity to learn first hand what it is that biologists do. You should schedule time with any one biology professor here at Mary Washington. You will be provided with a list of faculty that are willing to be interviewed.

These professors kindly volunteered their time to be available to you. It's your responsibility not to waste their time. Please arrive for your interview on time with your materials prepared.

Upon scheduling, you should prepare for the discussion by developing a set of well-thought out questions designed to help you get a real understanding of what this biologist does. We expect that a good interview will be comprised of 20 - 30 questions. We will use some class discussion to help prepare questions.

Sample Questions (and yes you may use these):

What was the last study that you conducted?

What interested you in this topic?

What do you consider to be the most important things you did to prepare for this study (applied for grant money, experimental design, etc.)?

Once the interview has been conducted you should prepare the list of questions and answers on a Word file. Write your interview just as an article in a popular magazine, with an introduction of the interviewee, and a conclusion concerning what you feel you learned from the interview. How has this interview helped you learn about how biology operates? How does it relate to what we've learned from our synopses?

Book Report

The book report should relate material from a book to any of the seminal papers discussed in class for a given section. The report should be structured such that you introduce the general theme of the book, include a summary of the body of the book; discuss how the book is intellectually related to the seminal work talked about in class, and finish with your conclusions on how the works fits within the body of knowledge in biology and in its particular realm of biology, as well as its impact on society. Click here for a list of possible [Books](#) for your report. You are also able to choose a book on your own, with instructor approval.