

COVER SHEET: Request for Approval to Use W-Designation

TYPE I. PROFESSOR COMMITMENT

- Professor Dr. Jerry L. Pickering Phone 2356  
 Writing Workshop? (If not at IUP, where? when? \_\_\_\_\_)  
 Writing Summary for typical course (see instructions below)  
 Agree to forward syllabi for subsequently offered W-courses?

TYPE II. DEPARTMENTAL COURSE

- Department Contact Person \_\_\_\_\_ Phone \_\_\_\_\_  
 Course Number/Title \_\_\_\_\_  
 Statement concerning departmental responsibility  
 Writing Summary for this course (see instructions below)

TYPE III. SPECIFIC COURSE AND SPECIFIC PROFESSOR(S)

- Professor(s) Dr. Jerry L. Pickering Phone 2356  
 Course Number/Title BI 269-Coevolution, Bioethics and The Future  
 Writing Summary for this Course (see instructions below)

SIGNATURES:

Professor(s) Jerry L. Pickering  
Department Chairperson William V. Andrews  
College Dean William J. Cal  
Director of Liberal Studies Charles D. ...

COMPONENTS OF A "WRITING SUMMARY"

(1) One or two pages explaining how writing is used in the course. Break down the explanation by the types of writing activities; be especially careful to explain what each writing activity is intended to accomplish. Indicate such things as the amount of writing, the frequency and number of assignments, and opportunities for revision. If the activity is to be graded, indicate the evaluation standards and the percentage contribution to the student's final grade. Also, explain any distinctive characteristics of the content or students which would help the Liberal Studies Committee understand your summary.

(2) A copy of the course syllabus.

(3) Samples of assignment sheets, instructions, or criteria concerning writing that are given to students.

Provide 12 copies to the Liberal Studies Committee.

## THE USE OF WRITING IN BI 269 COEVOLUTION, BIOETHICS, AND THE FUTURE

BI 269-Coevolution, Bioethics, and The Future is proposed for identification as a "W" course. This course is taught every other spring and can be taken by biology majors or non-biology majors. The course will count towards a biology major or minor. It is not listed as a Liberal Studies Elective. Most of the students will be juniors or seniors. Class size is limited to 24.

Four types of writing experiences will occur in this course:

**1. Journal:** The purpose of the journal is to give the student the opportunity to reflect about the course, to write about specific items that were discussed in class or that are in the current news, to express ideas that may be more easily done outside of class, and to provide an opportunity for the student to express what is going on in his/her own life. Such writing will encourage the student to be an interactive learner and should foster self-discovery in relationship to the topics discussed in class. It should make the student reflect on and analyze information that she/he is exposed to in and out of the classroom.

This assignment will help the instructor to: get to know the students better, help identify students who may be having problems in understanding course content, and provide a means of determining if a student needs help in improving his/her writing skills. Although student entries are not expected to be written in an edited form, the consistency, quality and improvement in the essays will be used in determining the grade.

25 pts., 6.7% of grade

**2. Research Paper:** Several goals are met by having the students do a research paper. These include having the student become involved in the active learning process, critical thinking, problem solving, learning library research skills, and the development of analytical writing skills. By doing this paper the student will obtain a more comprehensive understanding of a subject that is not only of interest to the student but also is a topic that relates to the course. The paper provides the instructor with a way of determining if the student has fulfilled the above goals and where improvements are needed. An additional goal is to increase the student's confidence in her/his ability to analyze, understand, and write about complex issues that affect not only themselves but also society.

By semester mid-term the title, outline, and references found to date are to be given to the instructor. These will be returned, with comments, within a week. Approximately two weeks later a draft of the paper is to be submitted to the instructor. These will be returned the following week with appropriate comments for improvement, and will be marked satisfactory (S) or unsatisfactory (U). Students who receive a (U) must meet with the instructor to discuss what changes need to be made in the paper. The final draft of the paper is to be given to the instructor the second week before the end of the semester. The paper will be evaluated on the basis of: content, documentation, comprehension, style, editing, and completion in the required time period. (See the attached assignment sheet for details.)

100 pts.; 70 pts. on content, 30 pts. on writing, 26.6% of grade

**3. Essay Examinations:** Three examinations will be given in the course. These exams will consist of primarily essay questions. The goal of these examinations is not only to obtain a measure of the student's knowledge of topics discussed class, but also to determine if the student can think and write well. Students are encouraged to write their answers so that they are clear, well-structured, fully developed, and include the items necessary for completeness. Although students will not be expected to write essays that are fully edited, they will be evaluated on the basis of the preceding criteria.

200 pts., 53.3% of grade

**4. Review Article:** During the semester students will be required to write three (3) one-page review "position-papers" on articles they have read in newspapers, journals, magazines etc. on topics that relate to items discussed in class. The purpose of these papers is to have students develop the skills to analytically evaluate articles, to provide them the opportunity to express their opinions about class related material, and to require them to improve their ability to express their views in writing. These papers will provide the opportunity for the instructor to evaluate the writing ability of students, and to give advice to them on ways to improve their writing and analytical skills. Although these papers will not be given a grade, the instructor will evaluate them using similar criteria as will be used in the research paper. The "position-papers" must be done or the student will receive an incomplete (I) in the course.

## COURSE SYLLABUS

### I. Catalog Description

BI 269 Coevolution, Bioethics, and the Future

3c-01-3sh

A course to discuss and explore the coevolution of humans and the biosphere. Areas covered include the concepts of coevolution, bioethics, resource utilization and possible future lifestyles. Designed for majors and nonmajors

### II. Objectives

The goals of this course are:

1. To provide an understanding of human biological and cultural evolution and their inter relatedness with the development of the technological society.
2. To consider the complicated issues involved in the study, evolution, and resolution of bioethical problems which we are faced with now and in the future as a result of the continuing advances in medical/scientific technology.
3. To consider problems which face the biosphere now and in the future, and ways in which technology might be used to help solve these problems.
4. To develop critical thinking skills in order to analyze, summarize, and prioritize complex biological/global issues as they relate to societal and personal issues.
5. To have students evaluate, give opinions or formulate the possible future consequences of specific actions.
6. To increase the ability of students to express in writing their thoughts in regards to objectives one-five.

### III. Course Outline

#### COEVOLUTION, BIOETHICS, AND THE FUTURE SYLLABUS FOR SPRING 1991

##### TENTATIVE SCHEDULE FOR SECTION I-COEVOLUTION

<u>Lec.</u>	<u>Date</u>	<u>Topic</u>	<u>Readings*</u>
1	Jan 23	Introduction	
2	Jan 25	Gaia Hypothesis	ix-xx, 3-14
3	Jan 28	Gaia Video	15-41
4	Jan 30	Evolutionary Time Scale	42-64
5	Feb 1	Evol. of Life Forms & Systems	65-125
6	Feb 4	Evolutionary Theory	126-151
7	Feb 6	Coevolution	152-182
8	Feb 8	Coevolution	183-202
9	Feb 11	Primate Evolution	203-237
10	Feb 13	Review of Gaia	
11	Feb 15	Case Studies	
12	Feb 18	IUP Colloquium, Dr. Daniel Callahan, 7:30 Gorell Hall "How much medical progress can we afford: Morality or money?"	
13	Feb 20	Case Studies	
14	Feb 22	Exam I	

\*Reading are from: Lovelock, James. 1987. *The Ages of Gaia*

##### TENTATIVE SCHEDULE FOR SECTION II-BIOETHICS

<u>Lec.</u>	<u>Date</u>	<u>Topic</u>	<u>Readings*</u>
15	Feb 25	Ethical Theory & Bioethics	
16	Feb 27	Group 7-Definition of Life	
17	March 1	Group 6-Cyrobiology	
18	March 4	Ethical Theory & Bioethics cont.	
19	March 6	Is Abortion Immoral?	Issue 1
20	March 8	Should Research with Aborted Fetal Tissue Be Banned? SPRING BREAK	Issue 13
21	March 18	Can Deception in Research be Justified?	Issue 11
22	March 20	Use of Human Organs	Issues 15 & 16
23	March 22	Use of Human Organs cont.	Issue 17

24	March 25	Is Genetic Engineering a Threat to Future Generations?	Issue 20
25	March 27	Group 5-Is Surrogate Motherhood Ethical?	Issue 3
26	March 29	Group 3-Euthanasia	Issues 5 & 6
27	April 2	Group 4-Animal Rights	Issues 12 & 14
28	April 3	Exam #2	

\*Readings are from: Levine, Carol. 1989. *Taking Sides: Clashing Views on Controversial Bioethical Issues* (3rd. ed.)

### TENTATIVE SCHEDULE FOR PART 3-THE FUTURE

<u>Lec.</u>	<u>Date</u>	<u>Topic</u>
30	April 8	Introduction, Forecasting the Future
31	10	no class:mini-symposium, "Global Survival"
32	12	Global Sustainability
33	15	Earth Studies
34	17	no class:Sigma Xi Lecture, Dr. Rita Colwell: "The Release of Genetically Engineered Organisms into the Environment"
35	19	Megatrends
36	22	Megatrends cont.
37	24	Future in Education
38	26	Our Common Future
39	29	Our Common Future cont. (final draft of paper due)
40	May 1	Group 1-Chemical & Biological Warfare
41	3	Group 2-Genetic Engineering
42	6	Review (hand in journal)

#### IV. Evaluation Methods

The grade for this course will be determined as follows:

1. TESTS: Three (3) tests, 200 pts, 53.3%. A test will be given at the end of each of the three sections of the course. The third exam will be given during finals week and will be part comprehensive. All exams will be written in class.

2. RESEARCH PAPER: 100 pts., 26.6%. Each student is to research and write a paper on a subject which relates to a topic discussed in class. See assignment sheet for details.

3. CLASS CASE STUDIES/DEBATES: 25 pts, 6.7% (10 pts by instructor, 15 pts by group). The periods before each of the exams will be used for class case studies/debates. The class will be divided into groups each consisting of 4-5 students. The specific topics to be researched will be determined after discussion between each group and the instructor. Possible topics are: genetic testing in the work place, the use of fetal tissue for medical experimentation or treatment, evolution vs. scientific creationism, future trends in education, animal rights, and euthanasia.

4. CLASS PARTICIPATION: 25 pts, 6.7%. The instructor will assign each student a maximum of 25 pts based on his/her class participation.

5. JOURNAL: 25 pts., 6.7% Each student is to keep a hard-bound journal in which s/he has written entries about topics that relate to the course. The purpose of the journal is to provide the student the opportunity to reflect about the course, to write about specific items that are discussed in class or that are in the current news, to express ideas that may be easier for the student to write about outside of the classroom, and to provide an opportunity for the student to express what is going on in his/her life in relationship to the course. The journals should be brought to all classes since from time to time the students will make entries in the journals during class time. The instructor will collect journals from approximately one-fourth of the class each week throughout the semester. These will be returned the following week containing written comments by the instructor. The last week of class all journals will be collected by the instructor and returned at the final exam period. The journal essays will be evaluated on the basis of content and writing ability. The quality and improvement in the journal essays will be primary factors in grading the journal.

6. REVIEW ARTICLES: Although not given a grade, these must be turned in by the student otherwise the student will receive an incomplete (I) in the course. The instructor will evaluate these articles on the basis of writing ability and analytical thinking skills. The instructor will consult with students on an one-on-one basis when he feels that a student's writing abilities need personal attention.

#### V. Required Reading

Levin, Carol. 1989. *Taking Sides: Clashing Views on Controversial Bioethical Issues* (3rd Ed.). Dashkin Publ. Group, Inc.

Lovelock, James. 1987. *The Ages of Gaia*. W.W. Norton

## ASSIGNMENT WORKSHEET FOR RESEARCH PAPER

**Assignment:** You are to write a research paper which relates to a topic discussed in class. Guidelines for this paper area as follows.

1. between 15-20 pages in length
2. type written or done on a computer
3. minimum of ten references
4. reference citations are to follow the *CBE Style Manual, 5th ed.* (author; title, subtitle of article or book; title of journal; volume; issue and pages of journal or volume; pages of book; year of publication: Brown, J.D. Fun on the beach. J. of Travel. 11:14-34, 1977
5. a title page and one-page abstract are to be placed before the text of the paper
6. footnotes are not to be used
7. by mid-term of each semester the title, outline, and references found to date are to be given to the instructor (these will be returned, with comments, within a week)
8. Approximately two weeks later a draft of the paper is to be submitted to the instructor. These will be returned the following week with appropriate comments for improvements. Although not graded, they will be marked satisfactory(S) or unsatisfactory (U). Those students receiving a (U) must make an appointment to meet with the instructor.
9. The final draft of the paper is to be given to the instructor the second week before the end of the semester.
10. The 100 pts. for this paper will be based on 70 pts. for content and 30 pts. on writing.

**Evaluation:** Your research paper will be evaluated on the basis of the following criteria.

1. Content and Source-
  - Was the information current and reliable?
  - Was the information pertinent to the "theme" of the paper?
  - Was there adequate data to support the conclusions of the paper?
2. Comprehension and Style-
  - Did you understand the material and was it written in your own words?
  - Was the paper clear and understandable?
  - Did the abstract adequately summarize the entire paper?
3. Documentation/References-
  - Did the documentation follow the correct style?
  - Did the content of the paper have supportive documentation?
4. Editing-
  - Where proper mechanics (spelling, punctuation, etc.) used in the paper?
5. Time Factor-
  - Where the outline, first draft, and final draft turned in on time?

### Example Topics:

biodiversity  
euthanasia  
death & dying  
evolution of  
earth's atmo.

scientific creationism  
water resources  
acid rain  
regulation of  
biotechnology

fetal rights  
animal rights  
nanotechnology  
restoration  
ecology

renewable energy  
greenhouse effect  
artificial intell.  
global climate change