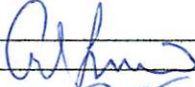
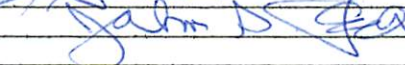
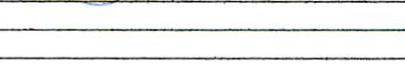
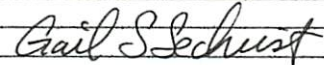


LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action-Date:
		03-316	Apr 2/10/04	Apr 3/2/04

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person W. Barkley Butler	Email Address Bbutler@iup.edu
Proposing Department/Unit Biology	Phone 724-357-2147

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply) ☒ New Course ☐ Course Prefix Change ☐ Course Deletion ☐ Course Revision ☐ Course Number and/or Title Change ☐ Catalog Description Change	
BIOL 484 – Honors Seminar <u>Current Course prefix, number and full title</u> <u>Proposed course prefix, number and full title, if changing</u>	
2. Additional Course Designations: check if appropriate ☐ This course is also proposed as a Liberal Studies Course. ☐ Other: (e.g., Women's Studies, Pan-African) ☒ This course is also proposed as an Honors College Course.	
3. Program Proposals ☐ New Degree Program ☐ Program Title Change ☐ Other ☐ New Minor Program ☐ New Track <u>Current program name</u> <u>Proposed program name, if changing</u>	
4. Approvals	
Department Curriculum Committee Chair(s)	 
Department Chair(s)	
College Curriculum Committee Chair	
College Dean	
Director of Liberal Studies *	
Director of Honors College *	
Provost *	
Additional signatures as appropriate: (include title)	
UWUCC Co-Chairs	

* where applicable

DEC - 2 2003

Part II. Description of Curricular Change

1. Syllabus of record

I. Catalog Description

BIOL 484 Honors Seminar

2 class hours

0 lab hours

2 credit hours

Prerequisites: Admission to the Biology Honors Program

(2c-0l-2sh)

Selected topics in biology. Use of the literature in preparation for advanced course work and BIOL 483 Honors Thesis/Independent Study. Students will analyze the literature, develop a literature review and develop a thesis proposal. Guest speakers will provide additional exposure to major areas of biology.

II. Course Objectives

1. Students will become familiar with the major areas of biology, especially those represented within the Department of Biology.
2. Students will choose a thesis topic, a thesis director and a committee for their Honors Thesis.
3. Students will become familiar with the primary literature related to their thesis topic.
4. Students will develop a thesis proposal for approval by their thesis committee.

III. Detailed Course Outline

(Timetable totals 3 hours, including the final exam period, and is for a full class of 12 students but could be adjusted for a smaller class.)

- A. (2 hours/class periods) Introduction to the primary literature of science
 1. What is the primary literature, how is it constructed and reviewed?
 2. Faculty led discussions of two examples of papers from the primary literature.
- B. (6 hours/class periods) Student led discussions (one each) of papers from the primary literature.
- C. (5 hours/class periods) Faculty presentations followed by critical discussions to introduce students to the major areas of biology, especially those represented within the Department of Biology.
- D. (4 hours/class periods) Exploration by each student of possible thesis topics. This will involve meeting with prospective thesis directors.
- E. (3 hours/class periods) Brief oral (5 - 10 minute) and written (two pages) presentations by each student of one thesis proposal followed by critical discussion of the proposal by the entire class. (15 minutes per student)
- F. (4 hours/class periods) Development, in consultation with their thesis director, of a full thesis proposal

- G. (6 hours - 4 hours/class period plus the 2-hour final exam period) Oral (15 minute) and written presentations by each student of their final thesis proposal for the class and their committee followed by critical discussion of the proposal by the entire class and thesis committee

IV. Evaluation Methods

The final grade will be based primarily on the final thesis proposal (oral and written) and will be determined by the instructor. Students will receive feedback at all stages of the course, but the aim is to develop a thesis proposal of high quality that addresses a significant question, is feasible, well-developed and displays a solid knowledge of the relevant literature.

V. Example Grading Scale

A: The thesis proposal is approved by the thesis committee and the student is allowed to remain in the Biology Honors Program and is thus eligible to take BIOL 483 Honors Thesis/Independent Study.

B: The thesis proposal is approved by the thesis committee but requires revisions that must be completed in order for the student to be allowed to remain in the Biology Honors Program and be eligible to take BIOL 483 Honors Thesis/Independent Study.

C: The thesis proposal requires major revision before it can be approved by the thesis committee. Following approval the student is allowed to remain in the Biology Honors Program and is eligible to take BIOL 483 Honors Thesis/Independent Study.

D: The thesis proposal is not approved by the thesis committee and the student, although receiving credit for the course is dropped from the Biology Honors Program and is thus not eligible to take BIOL 483 Honors Thesis/Independent Study.

F: The thesis proposal is not approved by the thesis committee and the level and/or quality of the student's participation in the class is such that no credit is warranted.

VI. Undergraduate Course Attendance Policy

The attendance policy will conform to the University Attendance Policy.

VII. Required Textbook

Writing Papers in the Biological Sciences, 3rd Edition by Victoria E. McMillan, 2001

VIII. Special Resource Requirements

None

IX. Bibliography

None because the literature used in the course will be that pertaining to the research interests of the students taking the course and the faculty making presentations in it.

2. Courses Analysis Questionnaire

A. Details of the Course

A1 *How does this course fit into the programs of the department? For what students is the course designed? (majors, students in other majors, liberal studies). Explain why this content cannot be incorporated into an existing course.*

This course is designed as a required course for students accepted into the Biology Honors Program. It will prepare students for BIOL 483 Honors Thesis/Independent Study that is a requirement of the Program.

A2 *Does this course require changes in the content of existing courses or requirements for a program? If catalog descriptions of other courses or department programs must be changed as a result of the adoption of this course, please submit as separate proposals all other changes in courses and/or program requirements.*

This course will not require changes in the content of existing courses within the department.

A3 *Has this course ever been offered at IUP on a trial basis (e.g. as a special topic) If so, explain the details of the offering (semester/year and number of students).*

This course has never been offered at IUP on a trial basis.

A4 *Is this course to be a dual-level course? If so, please note that the graduate approval occurs after the undergraduate.*

This course will not be offered as a dual level course.

A5 *If this course may be taken for variable credit, what criteria will be used to relate the credits to the learning experience of each student? Who will make this determination and by what procedures?*

This course will not be offered for variable credit.

A6 *Do other higher education institutions currently offer this course? If so, please list examples (institution, course title).*

Although many departments at IUP, including Biology, have 480 seminar courses, several departments have courses that appear similar to this one.

ANTH 480 Anthropology Seminar
COMM 480 Seminar in Communications Media
HIST 480 Senior seminar

Other colleges and universities have similar courses for their best students.

Allegheny College

600 Senior Project and Seminar I - Individual senior research projects will be developed in group and individual meetings with the project advisor and other appropriate faculty members. Pertinent literature is examined in order to identify proper experimental approaches, designs, techniques, and methods of data analysis. Oral and written research proposals and progress reports are presented and discussed. Credit: Two semester hours.

Western Michigan University

BIOS 497 Senior Seminar: Topic to be specified - 3 hrs.

This capstone course integrates a variety of biological concepts within a selected broad topic. The student makes a technical presentation and submits a paper on a selected subject. The student's record will indicate the nature of the seminar in which he/she has participated. Not repeatable for credit. Prerequisite: Senior standing and an approved major slip.

- A7 *Is the content, or are the skills, of the proposed course recommended or required by a professional society, accrediting authority, law or other external agency? If so, please provide documentation.*

The course is not recommended or required by a professional society, accrediting authority, law or external agency.

B. Interdisciplinary Implications

- B1 *Will this course be taught by instructors from more than one department? If so, explain the teaching plan, its rationale, and how the team will adhere to the syllabus of record.*

Only instructors in the Department of Biology will teach this course. It may be team taught since its purpose is to expose students to the full range of research areas represented within the Department of Biology.

- B2 *What is the relationship between the content of this course and the content of courses offered by other departments? Summarize your discussions (with other departments) concerning the proposed changes and indicate how any conflicts have been resolved. Please attach relevant memoranda from these departments that clarify their attitudes toward the proposed change(s).*

This course does not overlap or conflict with any other courses offered by other departments.

- B3 *Will this course be cross-listed with other departments? If so, please summarize the department representatives' discussions concerning the course and indicate how consistency will be maintained across departments.*

This course will not be cross-listed with other departments.

C. Implementation

- C1 *Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how this course will fit into the schedule(s) of current faculty. What will be taught less frequently or in fewer sections to make this possible? Please specify how preparation and equated workload will be assigned for this course.*

Faculty resources are adequate for this course. The course will count as one preparation and two hours of equated workload.

- C2 *What other resources will be needed to teach this course and how adequate are the current resources? If not adequate, what plans exist for achieving adequacy? Reply in terms of the following:*

- *Space
- *Equipment
- *Laboratory Supplies and other Consumable Goods
- *Library Materials
- *Travel Funds

Space is adequate for this course, which will be taught in our seminar room.
 No special equipment is required for this course.
 No laboratory supplies or other consumable goods are required for this course.
 Library materials are less than adequate and students will probably need to utilize interlibrary loan or rely on the reprint collections of faculty
 No travel funds are required for this course.

- C3 *Are any of the resources for this course funded by a grant? If so, what provisions have been made to continue support for this course once the grant has expired? (Attach letters of support from Dean, Provost, etc.)*

This course is not funded by a grant.

- C4 *How frequently do you expect this course to be offered? Is this course particularly designed for or restricted to certain seasonal semesters?*

This course will be offered annually in the fall semester.

- C5 *How many sections of this course do you anticipate offering in any single semester?*

Only one section of this course will be offered each year.

- C6 *How many students do you plan to accommodate in a section of this course? What is the justification for this planned number of students?*

This course is designed for and limited to students in the Biology Honors Program. Since this program is limited to twelve students that will be the upper limit for this course.

- C7 *Does any professional society recommend enrollment limits or parameters for a course of this nature? If they do, please quote from the appropriate documents.*

No professional society recommends enrollment limits or parameters for this course.

- C8 *If this course is a distance education course, see the Implementation of Distance Education Agreement and the Undergraduate Distance Education Review Form in Appendix D and respond to the questions listed.*

This is not a distance education course.

D. Miscellaneous

Include any additional information valuable to those reviewing this new course proposal.

This course is designed to be part of the proposed new Biology Honors Program. Students will be admitted into the program in the spring of their sophomore year and will then be required to take this course in the fall semester of their junior year.

Form to Request Approval of an Honors College Course

HCC# _____
Action/Date _____

COVER SHEET: Proposal for Honors College Course

Course Title: Honors Seminar Course Number _____

Professor(s): W. Barkley Butler Phone and e-mail: 7-2147 & Bbutler@iup.edu

Department(s): Biology

Prerequisites: Admission to the Biology Honors Program or Permission

Please check all that apply:

- ☐ This is a proposal for an Honors section of an existing course
☒ This is a proposal for a new Honors course.
☐ This course is designed to meet a Liberal Studies requirement
☐ This course is open to non-majors
☒ If offered, this course would NOT require replacement FTE for my department
☐ If offered, this course would SOMETIMES require replacement FTE for my dept.
☐ If offered, this course would ALWAYS require replacement FTE for my department.
☐ My department/college is willing to offer this course in summer as needed.

When is the earliest semester/summer session that you will be ready to teach this course?
 Fall 2004

Signatures: Dept. Curriculum Committee _____

Department Chairperson _____

College Dean _____

Director, Honors College _____

Please attach the following components to this cover sheet:

- ____ 1. a UWUCC course proposal cover sheet (for new courses only!)
- ____ 2. the syllabus of record approved by the UWUCC for this course (for existing courses only!)
- ____ 3. the syllabus for your proposed Honors version of this course in which course objectives are phrased as course questions, i.e. "The course will attempt to enable students to answer the questions: What is a 'good' film? What is a mathematical model? How is mathematics connected to life? What does it mean to think like a biologist?"
- ____ 4. answers to the 10 questions of the Honors College Committee

Honors College Course Proposal Questions:

To help us understand the pedagogy for your syllabus, please submit your thoughtful and concrete answers to the ten questions below:

1. Upon what definition of an honors student is this course description built?

This course is designed for all students in the Biology Honors Program and we expect it will include students from the Honors College. All students in this program are expected to have a deep interest in Biology and a desire to pursue research in some particular area of biology.

2. Describe how this course is different from a regular (non-honors) section of this or a similar course? Explain how the differences meet the criteria of being qualitatively different from a normal undergraduate course rather than just covering quantitatively more material?

This is a new course and is being designed specifically for students in the Biology Honors Program, which will frequently include students from the Honors College. The entire program is designed to be qualitatively different from and an addition to the normal undergraduate program.

3. How does this course demonstrate a commitment to the development of critical thinking skills as a primary objective? Give specific examples. Are there ways in which there could be more emphasis in critical thinking? If so, what are the impediments to a greater emphasis on critical thinking in the proposed course?

This course is designed to help students in the Biology Honors Program develop a thesis proposal. As such it requires that they further develop the critical thinking skills essential to research in the sciences generally and biology in particular.

4. Demonstrate how the pedagogy of this course is interactive and student-centered. Explain the ways in which your method of instruction creates a classroom environment, which is truly open to discovery by students. (As opposed to being one in which the professor plans to lead the students—however interactively—to predefined conclusions.)

Much of this course will involve presentations by students and nearly all of it will involve then in critical discussions of various areas of biology. Its aim is to help each of the students in it to develop a proposal for a research based honors thesis.

5. Explain how this course reflects high expectations for self-initiated student learning? In what ways does this course provide a foundation, which teaches students HOW TO be self-initiated learners rather than just assuming they will be?

Students are to select an area of interest to them and develop their own thesis proposal. The skills essential to doing this will be modeled in both faculty presentations of their own research and in analysis of papers from the primary literature of biology.

6. Describe how this course meets the criteria of providing an integrative or synthetic approach to knowledge? How could this feature be enhanced? Describe the impediments to a more enhanced synthetic approach.

In selecting an area for thesis research and developing a thesis proposal students will need to draw on all of their previous biology courses and move beyond that into the primary literature of their chosen area.

7. **Give evidence that this course moves at a pace appropriate for honors students while recognizing that, though honors students may be very bright, they do not necessarily come with pre-existing academic SKILLS.**

This course starts by giving students exposure to the work and thinking of established researchers and moves rapidly to supporting them in the development of a research proposal of their own. The Biology Honors Program is, by its very nature, challenging and only highly motivated students will be selected for it.

8. **How does this course demonstrate concern for students' affective and moral/ethical as well as cognitive growth? Do you have suggestions for strengthening the affective and/or moral/ethical focus? Describe the impediments to strengthening this aspect of the course.**

Any discussion of the scientific literature and the procedures by which science is done implicitly or explicitly deals with the ethics of science. What constitutes originality? How is prior work acknowledged? What ethical standards guide scientists in their work?

9. **How does this course provide opportunities for students to enhance written and oral communication skills? Is there evidence that the methods of evaluation demonstrate a commitment to interactive pedagogy with at least 33% of the final grade based on projects, presentations, writing and/or performance?**

Throughout the course students will make oral presentations, lead discussions. Their grade will be based on their final thesis proposal, which will be presented in both oral and written form.

10. **Describe your likely response to a group of students from the proposed honors class coming to you and indicating that this class is not being taught in an appropriate manner for an honors course.**

I have always solicited feedback from students about courses I have taught, particularly small courses. I try to listen to any and all comments and criticisms. In this case, I would ask them to discuss with me the Honors College Course Proposal Questions listed above and, if we agreed that the course was not appropriate in some area, solicit suggestions for improving it.