LSC Use Only
Number: LS 205
Submission Date: 4/1/98
Action-Date:

RECEIVED
APR - 1 1998
LIBERAL STUDIES

UWUCC USE Only
Number:
Submission Date:
Action-Date:

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. **CONTACT**

Contact Person Barkley Butler Phone X 2147

Department Biology

II. **PROPOSAL TYPE (Check All Appropriate Lines)**

X **COURSE** Great Ideas in Sc:
Suggested 20 character title

✓ New Course* SC 201 Great Ideas in Science
Course Number and Full Title

___ Course Revision ___
Course Number and Full Title

✓ Liberal Studies Approval+ for new or existing course SC 201 Great Ideas in Science
Course Number and Full Title

___ Course Deletion ___
Course Number and Full Title

___ Number and/or Title Change ___
Old Number and/or Full Old Title

___
New Number and/or Full New Title

___ Course or Catalog Description Change ___
Course Number and Full Title

___ **PROGRAM:** ___ Major ___ Minor ___ Track

___ New Program* ___
Program Name

___ Program Revision* ___
Program Name

___ Program Deletion* ___
Program Name

___ Title Change ___
Old Program Name

___
New Program Name

III. **Approvals (signatures and date)**

Department Curriculum Committee — Department Chair

College Curriculum Committee — College Dean

+Director of Liberal Studies (where applicable) — *Provost (where applicable)

4-23-98

To: Honors College, Liberal Studies, UWCC

From: Barkley Butler BB

Date: March 31, 1998

Subject: New Course Proposal
Honors College and Liberal Studies Non-Laboratory Science Course

The attached proposal is being submitted for approval as SC-201, Great Ideas in Science. Approval is requested as an Honors College course and as a Liberal Studies Non Laboratory science course.

The course has been approved by the Curriculum Committees of the Department of Biology and the College of Natural Sciences and Mathematics. Letters of support from the departments of Chemistry, Geoscience and Physics are attached.

It is my hope that this course can be approved in time that it can be taught in the spring of 1999.

I will be glad to answer any questions or do anything else I can to expedite the progress toward approval of this course.

approved 4-23-98
non-lab science

Liberal Studies Course Approval Form
Instruction Sheet

Use this form only if you wish to have a course included in a Liberal Studies Learning Skill or Knowledge Area category. Do not use this form for synthesis or writing-intensive sections; different forms are available for these. If you have questions, contact the Liberal Studies Office, 352 Sutton Hall, telephone 357-5715.

This form is intended to assist you in developing your course to meet IUP's Criteria for Liberal Studies and to arrange your proposal in a standard order for consideration by the Liberal Studies Committee (LSC) and the University-wide Undergraduate Curriculum Committee (UWUCC). When you have finished, your proposal will have these parts:

✓ Standard UWUCC Course Proposal Cover Sheet, with signatures (one page)

✓ Completed copy of LS General Information Check-List--Parts 1-3 of this form. (one page)

✓ One sheet of paper for your answers to the four questions in Part IV of this form. (one page)

✓ Completed check-list for each curriculum category in which your course is to be listed--e.g. Non-Western Cultures, Fine Arts, etc. (one page each) [Check-lists are found in Appendix to this Handbook.]

✓ Course Syllabus in UWUCC Format.

Note: If this is a new course not previously approved by the University Senate, you will also need answers to the UWUCC Course Analysis Questionnaire. These are not considered by the LSC but will be forwarded to the UWUCC along with the rest of the proposal after the LSC completes its review. For information on UWUCC procedures for new courses or course revisions, see appropriate sections of this Handbook.

Submit <u>one</u> (1) copy of the completed proposal to the Liberal Studies Office (352) Sutton Hall). The Liberal Studies Committee will make its own copies from your original; the committee does reserve the right to return excessively long proposals for editing before they are duplicated. (If you happen to have extra copies of the proposal, you are invited to send multiple copies to the LSC to save unnecessary copying.)

Please Number All Pages

GREAT IDEAS IN SCIENCE
SC-201

ANSWERS TO PART IV

A. This is not designed to be a multiple-section course. It is being developed by Dr. Butler and who will initially teach it. The course may be taught by others in the future and the official syllabus and course syllabi used in teaching it initially should provide sufficient guidance to assure essential equivalency over time.

B. Great Ideas in Science will deal only with the most basic and sweeping discoveries in the physical and biological sciences and will place more emphasis on the ideas than on the persons who developed them. Most of these discoveries were made over a period when these fields were dominated by white males of European descent. Where women played parts in these discoveries; Marie Curie in the early work on radioactivity and the discovery of radon and Rosalind Franklin in the discovery of the structure of DNA for example, their work will be described and discussed. Two outside readings will be used to focus attention on the key roles of a male and female scientist in one of the key discoveries of 20th century biology, the structure of DNA. "The Double Helix", by J.D. Watson and "Rosalind Franklin and DNA" by Anne Sayre are accounts of this discovery and the latter addresses "what it is like to be a gifted woman in an especially male profession."

C. Students will read two books in addition to the text for this course. The books will vary from year to year, but initially will be the two mentioned in "B" above: "The Double Helix", by J.D. Watson and "Rosalind Franklin and DNA" by Anne Sayre. These have been chosen to offer illuminating insights into how scientists work and illustrate that science is a *human* endeavor.

D. This course will be multi disciplinary, but not multi departmental. As a non-laboratory science course, it will be taken by students who will also have to take a 4-credit laboratory course and a second 3-credit non-laboratory course. Students in these other science courses will be exposed to some of the ideas presented in this course, specifically those central to the science(s) they study, but no single course requires the breadth that this course offers. It is not designed to introduce a specific discipline, but rather to introduce students to the major ideas of all of the physical and biological sciences. There will be no conflict for any science major, since it is limited to students who are not majors in the departments of Physics, Chemistry, Geoscience or Biology

LIBERAL STUDIES COURSE APPROVAL, PARTS 1-3: GENERAL INFORMATION CHECK-LIST

I. Please indicate the LS category(ies) for which you are applying:

LEARNING SKILLS:

____ First Composition Course
____ Second Composition Course
____ Mathematics

KNOWLEDGE AREAS:

____ Humanities: History
____ Humanities: Philoe/Rel Studies
____ Humanities: Literature
____ Natural Sci: Laboratory
✓ Natural Sci: Non-laboratory
____ Fine Arts
____ Social Sciences
____ Non-Western Cultures
____ Health & Wellness
____ Liberal Studies Elective

II. Please use check marks to indicate which LS goals are primary, secondary, incidental, or not applicable. When you meet with the LSC to discuss the course, you may be asked to explain how these will be achieved.

Prim	Sec	Incid	N/A	
				A. Intellectual Skills and Modes of Thinking:
✓				1. Inquiry, abstract logical thinking, critical analysis, synthesis, decision making, and other aspects of the critical process.
	✓			2. Literacy--writing, reading, speaking, listening.
	✓			3. Understanding numerical data.
	✓			4. Historical consciousness.
✓				5. Scientific Inquiry.
	✓			6. Values (Ethical mode of thinking or application of ethical perception).
		✓		7. Aesthetic mode of thinking.
✓				**B. Acquiring a Body of Knowledge or Understanding Essential to an Educated Person**
	✓			**C. Understanding the Physical Nature of Human Beings**
				D. Collateral Skills:
		✓		1. Use of the library.
		✓		2. Use of computing technology.

III. The LS criteria indicate six ways that courses should contribute to students' abilities. Please check all that apply. When you meet with the LSC, you may be asked to explain your check marks.

✓ 1. **Confront the major ethical issues which pertain to the subject matter; realize that although "suspended judgment" is a necessity of intellectual inquiry, one cannot live forever in suspension; and make ethical choices and take responsibility for them.**

✓ 2. **Define and analyze problems, frame questions, evaluate available solutions and make choices.**

✓ 3. **Communicate knowledge and exchange ideas by various forms of expression, in most cases writing and speaking.**

✓ 4. **Recognize creativity and engage in creative thinking.**

✓ 5. **Continue learning even after the completion of their formal education.**

✓ 6. **Recognize relationships between what is being studied and current issues, thoughts, institutions, and/or events.**

CHECK LIST -- NATURAL SCIENCES (Non-laboratory)

Knowledge Area Criteria which the course must meet:

✓ Treat concepts, themes and events in sufficient depth to enable students to appreciate the complexity, history and current implications of what is being studied; and not be merely cursory coverage of lists of topics.

✓ Suggest the major intellectual questions/problems which interest practitioners of a discipline and explore critically the important theories and principles presented by the discipline.

✓ Allow students to understand and apply the methods of inquiry and vocabulary commonly used in the discipline.

✓ Encourage students to use and enhance, wherever possible, the composition and mathematics skills built in the Skill Area of Liberal Studies.

Natural Science Criteria which the course must meet:

✓ Examine a body of knowledge of natural science that will contribute to an understanding of the natural world.

✓ Provide an understanding of the development of natural science theories and their modification.

✓ Teach students to formulate and test hypotheses.

✓ Provide an understanding of some of the "great moments" in the history of natural science and the individuals, including women and minorities, responsible for them.

Additional Natural Science Criteria which the course should meet:

✓ Encourage an appreciation of the complex interrelationship of natural science with the life of the individual.

✓ Develop in students the abilities necessary to cope with the consequences of natural science in the modern world.

✓ Develop an inquiring attitude consistent with the tenets of natural science, an attitude that is willing to expose fallacy on the basis of reason, that demands evidence for scientific assertions and yet is tolerant of hypotheses in the absence of contradictory evidence.

Form to Request Approval of an Honors College Course

HCC#____
Action/Date _____

COVER SHEET: Proposal for Honors College Course

Course Title: Great Ideas in Science Course Number SC 201

Department(s): College of Natural Science and Mathematics

Professor(s): Barkley Butler Phone and e-mail X2147, BBUTLER

Prerequisites: HC students or Permission / Non Science [Physics, Chemistry, Biochemistry, Natural Science, Geoscience, Biology] majors only

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 replacment FTE for my department.
__✓__ My department/college is willing to offer this course in summer I as needed.
__✓__ I understand that I may not propose an honors synthesis course.

When is the earliest semester/summer session that you will be ready to teach this course?
~~Spring 1998 at SC 381~~ Spring 1999

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, *ie. "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

Please number all pages. Provide 14 copies to the Honors College Committee

HONORS COLLEGE COURSE PROPOSAL QUESTIONS

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

Honors students should be persons of wide curiosity about the world and how it works. They should be open to appreciating the interrelatedness of various disciplines and eager to apply their knowledge to real world problems.

2. How is this course different from a regular (non-honors) section of this course?

This is a new course and, in its present form, is being designed explicitly as an honors course.

3. How does this course demonstrate a commitment to the development of critical thinking skills as a primary objective?

Almost all of the grade in this course will be based on the student's ability to apply the great ideas of science to specific problems or situations. An understanding of the ideas will be only the starting point for their use in understanding and analyzing complex problems.

4. Description of the interactive and student-centered nature of the pedagogy of this course.

The instructor in this course will be there to explain or clarify ideas as necessary but to lecture as little as possible. Students will be encouraged and helped to obtain the basic information content of the course from their reading and the structure of most class periods will be organized to encourage and facilitate that end. Students will be given wide latitude in choosing problems or topics of interest to them to research or analyze. Extensive use will be made of small (2-4) groups.

5. How does this course reflect high expectations for self-initiated student learning?

If all goes as planned, there will be few lectures and these will be designed to model drawing central themes from the text or a reading. The expectation is that students will get most of their basic information from the text on their own or with help from each other and only rely on the instructor to clarify or explain when they are confused. It is the hope that this will free us to spend the majority of class time applying the knowledge learned from the text, not simply repeating it.

6. How does the course provide an integrative or synthetic approach to knowledge?

In considering the great ideas of four major sciences, physics, chemistry, geoscience and biology and applying them to comtemporary systems and issues, this course is integrative by its very nature.

7. How does this course move at a pace appropriate for honors students while recognizing that, though honors students may be bright, they do not necessarily come with preexisting skills?

The course will move, during the semester, from a greater dependence on the instructor to highlight and explain the ideas presented to a greater dependence on the student to draw information from the text and readings independently. The fact that the course also moves from physics and chemistry, which are traditionally difficult for students, toward biology, which they seem more comfortable with, may facilitate the transition to more independence.

8. How does this course demonstrate concern for students' affective and moral/ethical as well as cognitive growth?

As stated above, students will move from greater to less dependence on the instructor as they learn to read the text and take from it the main themes. The application of themes, particularly in the areas of atomic energy and biology, to contemporary problems such as energy, population and environmental issues will help students learn to relate science to the world of moral and ethical choices in which they live.

9. How does this course provide opportunities for students to enhance written and oral communication skills?

All graded course work will be written or oral presentations of ideas or applications of ideas to problems.

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.

COURSE SYLLABUS

I. CATALOG DESCRIPTION

SC 201 Great Ideas in Science

3 credits
3 lecture hours
0 lab hours
(3c-01-3sh)

Prerequisites: Honors College or Permission, No majors in Physics, Chemistry, Geoscience, Biology, Biochemistry or Natural Science
Corequisite: None

Introduces students to the great ideas in the fields of Physics, Chemistry, Geoscience and Biology at a level designed to deepen their understanding of the natural world around them and allow them to address intelligently those public issues that are based on science.

II. COURSE OBJECTIVES

As a result of taking this course, students will achieve "scientific literacy" across the whole field of the natural sciences at a level that will enable them to think and act as educated citizens in the 21st century. It is not intended to replace courses in specific sciences nor will it convey large amounts of specific information from the individual sciences. Rather, it will teach students to understand and use major ideas or "laws" of science. The major questions that this course proposes to address are:

1. What is science and how does it differ from "pseudoscience"?
2. What are the basic ideas or "laws" of physics, chemistry, geoscience and biology that govern the natural world?
3. How can we use these laws to understand modern technology and analyze contemporary science-based problems or issues?

III. COURSE OUTLINE

An introduction followed by 13 great ideas to be presented in one or two class periods each with additional periods devoted to discussing examples, problems or topics in terms of these basic ideas.

A. Introduction: (1 week)
   Why is science important?
   What is the scientific method and how does science differ from "pseudoscience"?

B. Thirteen great ideas that answer the following questions. (1 week each)
   1. What are Newton's laws that describe all motion in the universe and how did their discovery lead to an understanding that the universe is regular, predictable and quantifiable?
   2. What laws govern the flow of energy in the world?
   3. What are electricity and magnetism, what do they have in common and what do they have to do with radio, TV and the

working of the human eye?

4. What are atoms?
5. What holds atoms together and how can so many millions of compounds be made from so few of them?
6. What is nuclear energy and how is it used to make nuclear reactors, atomic bombs and treat cancer?
7. Where did the universe, the stars and our solar system come from?
8. How does the earth continue to change and how do the continents move?
9. How has the earth been recycling long before we did?
10. How do we get from chemistry to living cells and organisms?
11. What is a gene and what do the genes of all living things have in common?
12. How did life on earth evolve to go from no life to all the species we see around us today?
13. How is all life on earth interconnected and why should we care about "ecology"?

Students will work in groups of 2-4 in this course in various ways.

The text to be used is clear and focuses on ideas without getting lost in detail. For each group of related ideas, one or more class periods will be devoted to insuring that students understand the idea(s) under discussion. This will be done with a minimum of lecture and a focus on response to student questions about the text. Students could be involved here by presenting (orally and/or in writing) their own summaries of the main idea(s) either within small groups or to the entire class.

Subsequent class periods will be devoted to applications of the idea(s) under discussion. Students (individually or in groups) will be assigned problems (practical or political) to analyze in terms of these ideas. These will be discussed in class and some will be discussed in oral presentations and/or papers of various lengths.

IV. EVALUATION METHODS (The balance and details will vary as the course is taught and evolves.)

The final grade for the course will be based on the following:

10% Class participation as judged by both instructor and peers.

30% Group projects: oral and/or written presentations of key points from reading material (text, New York Times Tuesday science section, etc.) and of problems.

30% Individual and/or small group exams: These will test understanding and be in the form of brief problems to be analyzed in terms of the ideas already resented.

30% Final group/individual project: This will be an analysis of some more comprehensive topic or problem that will require an understanding of several ideas from the course. Problems will be assigned to groups with individual responsibility within the group for specific parts of the project thus allowing both individual

and group portions of the grade.

V. REQUIRED TEXTBOOKS, SUPPLEMENTAL BOOKS AND READINGS

Textbook: Hazen, R.M. and Trefil, J., The Sciences: An Integrated Approach, John Wiley & Sons, Inc. NY, 1995.

Required Reading: The New York Times Tuesday science section.

Outside Readings:

Watson, J.D., The Double Helix, New American Library edition, 1968
Sayre, Anne, Rosalind Franklin and DNA, W.W. Norton & Company, 1978

Additional Possibilities:

VI. SPECIAL RESOURCE REQUIREMENTS

None

VII. BIBLIOGRAPHY

Giancoli, Douglas C., Physics: Principles with Applications, 4th edition, Prentice Hall, 1995
Cole, J.C., Thompson, D.J. & Moses, L.L., Earth Science: A Holistic Approach, Wm. C. Brown Publishers, 1994
Tarbuck, E.J. & Lutgens, F.K., Earth Science, 8th edition, 1997
Brown, T. L. & LeMay, H.E. Jr., Chemistry: The Central Science, 2nd edition, Prentice-Hall, 1981
Campbell, N.A., Biology, 4th edition, 1996
Audesirk, T. & Audesirk, G., Biology: Life on Earth, 4th edition, Prentice Hall, 1993
Colinvaux, P.A., Introduction to Ecology, John Wiley & Sons, 1973
Carey, J.,Ed., Eyewitness to Science, Harvard University Press, 1995
Ross, A., Ed., Science Wars, Duke University Press, 1996
Gross, P.R., Levitt, N., & Lewis, M.W., Eds., The Flight from Science and Reason, The New York Academy of Sciences, 1996

COURSE ANALYSIS QUESTIONNAIRE

A. DETAILS OF THE COURSE

A1 **This course is intended as an Honors Course for inclusion in the Liberal Studies program as an elective especially for those Honors College students choosing Option II (one laboratory plus two nonlaboratory courses). It will be the only course in the college providing students with an overview of all of the natural sciences.**

A2 **This course does not require changes in any other courses or programs in the college.**

A3 This course follows the format of other nonlaboratory courses in the college. It differs from any other course in the college in being multi disciplinary in content.

A4 This course will be offered as a Special Topic during the Spring 1998 term.

A5 This course is not intended to be dual level.

A6 This course is not to be taken for variable credit.

A7 This course is closely modeled after one developed and being taught at George Mason University.

George Mason University: Great Ideas in Science

A8 No professional society, accrediting authority, law or other external agency requires or recommends this course.

B. INTERDISCIPLINARY IMPLICATIONS

B1 Despite being multi disciplinary, this course will be taught by a single instructor. This is the procedure advocated and successfully followed by the originators of the course at George Mason University and I plan to follow it here. We cannot expect students to be literate across the scientific disciplines if we do not display such literacy ourselves.

B2 By its very nature, this course overlaps with introductory courses in Biology, Chemistry, Physics and Geoscience. Because it is a survey course, however, it lacks the depth of any one of these courses and should inspire students to pursue some one or more of these disciplines in depth rather than competing with any one of them.

B4 No seats in this course will be reserved for students in the School of Continuing Education.

C. IMPLEMENTATION

C1. Faculty Resources
These are adequate though as an Honors College Course it might sometimes requre FTE for the department in which it is taught.

C2 Other Resources

a. Current space allocations are adequate to offer this course.

b. No additional equipment is required to teach this course.

c. No supplies are required to teach this course.

d. Library holdings are adequate to teach this course.

e. No travel funds are required to teach this course.

C3 No grant funds are associated with this course.

C4. This course is most likely to be offered in spring semesters.

C5 Initially no more than one section of this course is likely to be offered in a single semester.

C6 Twenty students will be accommodated in this course, the maximum for an Honors College course.

C7 No professional society recommends this course.

D. MISCELLANEOUS

The unique feature of this course is that it is multi disciplinary. It is dedicated to the proposition that, as its originators state, "The basic ideas underlying all science are simple." (Hazen & Trefil, Science Matters p. xvii). It is being proposed by a Professor in the Biology Department simply because I had the idea for such a course and then saw that such a course actually existed, complete with text, at another university. In preparing this syllabus and course proposal I have followed the model of Hazen and Trefil at George Mason University who have shown a willingness to help people at other universities develop similar courses. I participated in the review of a revised and expanded version (The Sciences: An Integrated Approach) of the text they originally wrote for this course, Science Matters. In developing and initiating this course, I plan to continue to seek advice and inspiration from these two and others working with similar courses.

Geoscience Department
Indiana University of Pennsylvania
114 Walsh Hall
Indiana, Pennsylvania 15705-1087

(412) 357-2379

IUP

March 30, 1998

TO: Barkley Butler
Biology Department

FROM: Frank W. Hall, Chair FWHall
Geoscience Department

SUBJECT: Geoscinece Department support for SC 201 Great Ideas In Science

The Geoscience Department reviewed the proposal of SC 201 Great Ideas In Science as an Honors College course. We discussed the course, especially its interdisciplinary nature and how it may overlap with other Geoscience department courses. There were some concerns about sufficient depth in the overlap areas to be considered an honors course. However, your recent discussion with me about the course and the proposed text (especially the fact that one of the authors is in the field of Earth Science), and that the course being for non-science majors only, indicates that there should be no depth/overlap/conflict problems in the Geoscience area. The Geoscience Department therefore supports the proposal.

March 17, 1998

TO: Dr. Barkley Butler
Dept. Of Biology

FROM: Dr. Pothen Varughese, Chair
Dept. Of Chemistry

Pothen Varughese

SUBJECT: SC 201, Great Ideas in Science

The Chemistry Department Curriculum Committee reviewed your honors course proposal and it is my pleasure to report to you that both the committee and I found the proposal to be innovative and appropriate for a sophomore level honors course. We are in support of this course and recommend that it be approved. We understand that the faculty complement to cover this course does not come from the College of Natural Sciences and Math.

Return-path: <rroberts@oak.grove.iup.edu>
Date: Wed, 11 Feb 1998 16:38:56 +0300
From: Richard Roberts <rroberts@oak.grove.iup.edu>
Subject: SC 201 GREAT IDEAS IN SCIENCE
To: BBUTLER@grove.iup.edu

Barkley,

The Physics Department faculty discussed your course proposal at our faculty meeting yesterday. The consensus was that the course does not overlap in a serious way with any course in our department.

One of the faculty members who is familiar with the book that you plan to use and is currently teaching some honors students in an honors section was concerned about the level of the material in the course. According to him, the students that he has are quite verbal and bright but their science and mathematics background is quite weak. Other comments included the thought that there should be more readings in the course; the faculty in the course should have a broad experience with different faculty presenting different aspects of the proposed course.

Because I am currently serving on the Senate Curriculum Committee, I know that you will need to rewrite the Course Objectives so that they answer the question "What is it that students will achieve as a result of taking this course?" Also in the Course Outline you will need to indicate how much time will be spent on each part of the course.

Richard D. Roberts
Chair, Physics Department
357-2371

Liberal Studies Office
352 Sutton Hall

Email DRCHRDSN
Phone x 5715

April 28, 1998

To: Barkley Butler, Biology Department

From: Darlene Richardson, Director

Subject: SC 201 Great Ideas in Science

At its April 23, 1998, meeting the Liberal Studies Committee approved your proposal to include SC 201 Great Ideas in Science as a course in the non-laboratory science category. We have a few questions/concerns:

- the syllabus is not in the UWUCC format
- what is the format of the final group project (written/oral/both?)
- please detail the specifics of how group and individual grades will be determined
- we also note an inconsistency in resource issues between what you write and what appears to be the Chemistry Department's understanding about complement (see Chemistry's letter of support).

You do not need to respond to the Liberal Studies Committee on these issues—but you may wish to consider them as your course makes its way through the University-wide Undergraduate Curriculum Committee (UWUCC).

We enjoyed reading your proposal and wish you well with this new course offering. I have reported this approval to the University-wide Undergraduate Curriculum Committee (UWUCC), but this course will not be sent to Senate for approval until the UWUCC forwards it.

Copy: Robert Prezant, Chair, Biology
John Eck, Dean, College of Natural Sciences and Mathematics