

UNIVERSITY FACULTY SENATE

SUMMARY OF AGENDA

May 6, 1991

- I. ADOPTION OF THE AGENDA
- II. APPROVAL OF THE MINUTES: April 8 and April 22, 1991
- III. REMARKS BY PRESIDENT ROSELLE and/or ACTING PROVOST MURRAY
- IV. ANNOUNCEMENTS: Senate President Goldstein

ANNOUNCEMENTS FOR CHALLENGE

- 1. New minor in Cognitive Science
- 2. Revision of the major in Entomology to create concentrations in:
 - a. General Entomology
 - b. Wildlife Conservation
- 3. Revision of the Bachelor's Degree in Mechanical Engineering
- 4. Revisions of the B.S. and B.A. in Geology; Minor in Geology; B.A. in Geology: Paleobiology; B.A. Earth Science Education
- 5. Revision of the B.S. in Geophysics
- 6. Revision of the minor in Women's Studies

V. OLD BUSINESS

- A. Resolution, introduced by Senator Edward Schweizer at the April 22, 1991 Faculty Senate meeting, on procedure for committees' consideration of a Senate motion

VI. NEW BUSINESS

- A. Election of Senate officers and certain committee members and chairs
- B. Request for confirmation of committee appointments
- C. Recommendation on the eligibility of faculty with professional and administrative appointments for faculty awards
- D. Recommendation that the Senate implore the administrations of the library and the University to alter the proposed library budget

- E. Recommendation for provisional approval of a new major leading to the B.S. degree in Environmental Science
- F. Recommendation for the establishment of an Honors Foreign Language Certificate Program
- G. Recommendation for the provisional approval of a new Honors Degree, leading to the Honors B.S. in Agriculture, Dean's Scholar in the College of Agricultural Sciences
- H. Recommendation on a Policy for Responsible Computing Use at the University of Delaware
- I. Recommendation for an Undergraduate Medical Leave of Absence Policy
- J. Request for endorsement of NASULGC Resolution
- K. Recommendation to discontinue the awarding of the General Honors Certificate and to replace it with two new awards
- L. Recommendation to revise the statement of the University-wide, generic requirements for the Honors Baccalaureate Degree
- M. Introduction of new business.



University of Delaware

UNIVERSITY FACULTY SENATE
219 McDOWELL HALL
NEWARK, DELAWARE 19716

(302) 451-2921
(302) 451-2922

April 24, 1991

TO: All Faculty Members

FROM: Ken Lomax, Vice President
University Faculty Senate

SUBJECT: Regular Faculty Senate Meeting, May 6, 1991

A handwritten signature in dark ink, appearing to read "Ken Lomax".

In accordance with Section IV, paragraph 6 of the Constitution, the regular meeting of the University Faculty Senate will be held on Monday, May 6, 1991 at 4:00 in room 110 Memorial Hall.

AGENDA

- I. Adoption of the Agenda.
- II. Approval of the minutes of the Senate meetings of April 8 and April 22, 1991.
- III. Remarks by President Roselle and/or Acting Provost Murray.
- IV. Announcements: Senate President Goldstein
Announcements for Challenge
 1. New minor in Cognitive Science (Attachment 3)
(This was originally on the agenda for February 11, 1991, however, it was returned to the Committee on Undergraduate Studies.)
 2. Revisions of the major in Entomology to create concentrations in:
 - a. General Entomology (Attachment 4a)
 - b. Wildlife Conservation (Attachment 4b)
 3. Revision of the Bachelor's Degree in Mechanical Engineering (Attachment 5)
 4. Revisions of the B.S. and B.A. in Geology; Minor in Geology; B.A. in Geology: Paleobiology; B.A. Earth Science Education (Attachment 6)
 5. Revision of the B.S. in Geophysics (Attachment 7)
 6. Revision of the minor in Women's Studies (Attachment 8)

V. Old Business

- A. Resolution, introduced by Senator Edward Schweizer at the April 22, 1991 Faculty Senate meeting, concerning procedure for committees' consideration of a Senate motion.

RESOLVED, that a Committee of the University Senate that is charged with the examination of any motion brought to the Senate must invite the individual who proposed the motion to appear before the Committee prior to the date when the Committee reports its recommendation to the Senate.

VI. New Business

- A. Election of Senate officers, two members of the Committee on Committees and Nominations, and one member of the Rules Committee. [Note: A slate of nominees prepared by the Committee on Committees and Nominations, (J. Olson, Chairperson), is presented in Attachment 1. Biographies of the nominees will be distributed as soon as possible. Senators are reminded that additional nominations may be made from the floor and that senators making such nominations are responsible for determining that a nominee would serve if elected.]

- B. Request from the Committee on Committees and Nominations (J. Olson, Chairperson), for Senate confirmation of committee appointments. (Attachment 2).

RESOLVED, that the appointments to Senate committees and the appointments of Senate committee chairpersons, as presented in Attachment 2 of this Agenda, are hereby confirmed.

- C. Recommendation from the Committee on Student and Faculty Honors (U. C. Toensmeyer, Chairperson), on the eligibility of faculty with professional and administrative appointments for faculty awards.

WHEREAS, faculty with professional and administrative appointments perform teaching and advisement functions similar to full-time faculty, be it

RESOLVED, that faculty with professional and administrative appointments should be eligible for faculty awards.

- D. Recommendation from Professor David Smith that the Senate implore the administrations of the library and the University to alter the proposed library budget. (Recommendation from the Library Committee, J. Morrison, Chairperson, will be reported at the meeting.)

WHEREAS, the holdings of the University Library are the tangible expression of accumulated knowledge, and

WHEREAS, these holdings, especially the periodicals, are an irreplaceable primary resource for faculty conduct of scholarly research, and

WHEREAS, an interruption in the subscriptions to periodicals would significantly and permanently decrease the quality of scholarly research by the faculty, be it therefore

RESOLVED, that the University Faculty Senate assert its position that maintaining the holdings of the library, including the maintenance of subscriptions to periodicals, is of the highest academic importance, and be it further

RESOLVED, that the University Faculty Senate implore the administrations of the library and the University to alter the proposed library budget so that the imminent large scale cancellations of subscriptions are not necessary.

- E. Recommendation from the Committee on Undergraduate Studies (H. Hall, Chairperson), with the concurrence of the Coordinating Committee on Education (R. Taggart, Chairperson), for provisional approval of a new major leading to the B.S. degree in Environmental Science. (Attachment 9)

RESOLVED, that the Faculty Senate approves provisionally, for four years, the establishment of a new major leading to the B.S. degree in Environmental Science, with concentrations in Atmospheric Environment, Biological Environment, and Geology, effective immediately.

- F. Recommendation from the Committee on Undergraduate Studies (H. Hall, Chairperson), with the concurrence of the Coordinating Committee on Education (R. Taggart, Chairperson), for the establishment of Honors Foreign Language Certificate Program. (Attachment 10)

RESOLVED, that the Faculty Senate approves the establishment of a new Honors Foreign Language Certificate Program for students majoring in Business and Economics, Engineering, or Political Science and International Relations, effective immediately.

- G. Recommendation from the Committee on Undergraduate Studies (H. Hall, Chairperson), with the concurrence of the Coordinating Committee on Education (R. Taggart, Chairperson), for the provisional approval of a new Honors Degree, leading to the Honors B.S. in Agriculture, Dean's Scholar in the College of Agricultural Sciences. (Attachment 11)

RESOLVED, that the Faculty Senate approves provisionally, for four years, the establishment of a new degree program, leading to the Honors B.S. in Agriculture degree, Dean's Scholar in the College of Agricultural Sciences, effective immediately.

- H. Recommendation from the Faculty Senate Committee on Instructional, Computing and Research Support Services (M. Lambrecht, Chairperson), setting forth a Policy for Responsible Computing Use at the University of Delaware.

WHEREAS, the staff of Computing and Network Services in consultation with the Faculty Senate Committee on Instructional, Computing and Research Support Services, have drafted a policy that is supported by this Committee, and

WHEREAS, the University of Delaware aims to provide the best possible computing and information resources to students, faculty, and staff with the fewest restrictions, and

WHEREAS, the University tries to manage those resources in such a way that students, faculty, and staff can freely participate in an open exchange of ideas with each other, with colleagues at other universities, and with appropriate off-campus information resources, and

WHEREAS, this open approach requires that all members of the University community who use the University's computing and information resources act cooperatively and responsibly, and

WHEREAS, the well-being of these resources is the responsibility of every user of these resources, be it therefore

RESOLVED, that the Policy for Responsible Computing Use as stated in Attachment 12 be adopted, and be it further

RESOLVED, that the Policy for Responsible Computing Use be inserted in the Faculty Handbook in Section III S. Academic Support Services, page III-T-1, as paragraph 4. (moving the present paragraph 4 to 5) and the Policy also be added to the University of Delaware Policy Manual, the Personnel Policies and Procedures for Professional and Salaried Staff, and the Official Student Handbook so that all members of the University community act in accordance with these responsibilities, relevant laws and contractual obligations, and the highest standard of ethics.

- I. Recommendation from the Committee on Student Life (D. Shade, Chairperson), for an Undergraduate Medical Leave of Absence Policy

WHEREAS, the University of Delaware currently has no medical leave of absence policy for undergraduates, and

WHEREAS, students who have significant medical conditions are currently required to withdraw from the University and later apply for readmission, and

WHEREAS, their health insurance may be terminated because of their withdrawal, be it therefore

RESOLVED, that the following policy be adopted.

MEDICAL LEAVE OF ABSENCE POLICY

A matriculated undergraduate student who needs to discontinue his/her studies for medical reasons (e.g., surgery, pregnancy, illness, rehabilitation, and other health-related circumstances) can request a medical leave of absence. A medical leave of absence can be granted for a maximum of two semesters. When the student applies for the leave, verification for the medical leave of absence must be presented to the Dean of the College in which the student is enrolled. If the leave is granted, the student may continue in the same program in which he/she had been enrolled prior to the leave. The student is not severing his/her connection with the University, and is eligible to continue his/her studies without applying for readmission. If the student is unable to return at the conclusion of the leave, his/her Dean should be consulted.

The granting of this medical leave in no way negates the student's financial responsibility to the University. If the student is a financial aid recipient, he/she should contact the Financial Aid Office. If the student is insured under the University's Health Insurance plan, the insurance will be in effect only during the year in which the student was enrolled; coverage will not extend beyond that period.

- J. Request for endorsement of a resolution from the National Association of State Universities and Land Grant Colleges (NASULGC) regarding the DOD policy of exclusion of homosexuals in the military, from the Committee on Student Life (D. Shade, Chairperson).

WHEREAS, current University of Delaware policy prohibits discrimination based upon sexual orientation, and

WHEREAS, the Department of Defense has a policy which excludes homosexuals from full participation in ROTC programs, and

WHEREAS, the University of Delaware has ROTC programs which must abide by the Department of Defense policy, be it therefore

RESOLVED, that the Faculty Senate support the National Association of State Universities and Land Grant Colleges (NASULGC) resolution of November 13, 1990. [Resolution is at Attachment 13.]

- K. Recommendation from the Committee on Undergraduate Studies (H. Hall, Chairperson), with the concurrence of the Coordinating Committee on Education (R. Taggart, Chairperson), to discontinue the awarding of the General Honors Certificate and to replace it with two new awards. (Attachment 14)

WHEREAS, the General Honors Certificate recognizes certain accomplishments of first year students in the University Honors Program, while also providing an incentive for those students to continue Honors work in the second year, and

WHEREAS, a student who is not in the first year Honors class and who comes to Honors work later on finds it impossible to earn the General Honors Certificate, with the result that the existence of that award does not in fact motivate other qualified students to pursue Honors work, and

WHEREAS, it would be desirable to retain emphasis on an intensive Honors experience in the first year, as well as to create a stronger incentive for all qualified students to pursue Honors work subsequent to the first year, and also desirable to extend this incentive throughout the undergraduate career, and

WHEREAS, a different configuration of Honors certificates could better achieve these ends, be it therefore

RESOLVED, that the awarding of the General Honors Certificate be discontinued subsequent to the 1993-94 academic year; and

that the first year Honors students entering the University in the 1991-92 academic year be the last students eligible to receive it; and

that no accomplishments subsequent to 12/31/93 may count toward the fulfillment of its requirements; and be it further

RESOLVED, that an undergraduate award known as the First Year Honors Certificate be established, with the first eligible recipients being the first year Honors class entering the University in the 1992-93 academic year, and

that the award be subject to the following requirements and conditions:

First Year Honors Certificate

This certificate is awarded to those admitted to the first year Honors class who, by the end of their first year of study, satisfy these requirements:

1. At least 30 college credits earned (including advanced placement and transfer credits).
 - a. At least 24 of the credits earned in courses taken at the University of Delaware, all within one year of study (a maximum of two semesters, one winter session, one summer).
 - b. At least 15 of the University of Delaware credits earned within one year of study to be in Honors courses, including an Honors Colloquium and an Honors Forum course.
2. Residence for two semesters in first year Honors student housing at the University.
3. A cumulative grade point average of 3.00 or higher in all courses, upon completion of the credit and residence requirements.

Conferral of the certificate is recorded on the student's permanent transcript following the term in which the requirements are completed.

and be it further

RESOLVED, that an undergraduate award known as the Advanced Honors Certificate be established, subject to the following requirements and conditions:

Advanced Honors Certificate

This certificate is awarded for accomplishments subsequent to a first year of college work. The requirements are:

1. At least 21 Honors credits earned in courses at the University of Delaware.
 - a. These 21 Honors credits are to be earned subsequent to the term in which all requirements for the First Year Honors Certificate are completed, or (for all other students) subsequent to the term in which the first full year of college work is completed (whether here or at another institution). No Honors credits earned prior to this point may count toward the 21 credit total.
 - b. At least 12 of these 21 Honors credits must be in courses at the 300 level or higher.

2. Consistent participation in the intensive advisement procedure for Advanced Honors students, the purpose of which is to insure that the student thoughtfully selects a challenging and enriched total program of studies and activities.
3. A cumulative grade point average of 3.00 or higher in all courses, upon completion of the credit and advisement requirements.

Conferral of the certificate is recorded on the student's permanent transcript following the term in which the requirements are completed.

(Notes: After 8/31/96 these notes cease to be applicable and are to be removed from published versions of these requirements.

- A. Since the intensive advising procedure called for in the second requirement is not expected to be in place prior to fall 1992, Honors courses taken before 1/1/93 cannot be counted toward the totals stipulated by the first requirement.
- B. This award replaces in part the General Honors Certificate, which is being phased out. In the transitional period, the Advanced Honors Certificate can be earned by those from the last group eligible to earn the General Honors Certificate, namely, first year Honors students entering the University in the 1991-92 academic year. For these students only, the first of the three above requirements will be as follows:
 1. At least 12 Honors credits earned in courses at the University of Delaware.
 - a. These 12 Honors credits are to be earned subsequent to the term in which all requirements for the General Honors Certificate are completed, or (for other students) subsequent to the term in which junior status is attained. No Honors credits earned prior to this point may count toward the 12 credit total.
 - b. At least 6 of these 12 Honors credits must be in courses at the 300 level or higher; at least 12 of all Honors credits earned at the University must be at the 300 level or higher.

This provision remains in effect until 8/31/96, after which the special eligibility it confers expires.)

- L. Recommendation from the Committee on Undergraduate Studies (H. Hall, Chairperson), with the concurrence of the Coordinating Committee on Education (R. Taggart, Chairperson), to revise the statement of the University-wide, generic requirements for the Honors Baccalaureate Degree. (Attachment 15)

WHEREAS, it is growing more difficult to provide places in each of the two distinct Honors Tutorial courses for every Honors Degree candidate, since the number of Honors Degree candidates is, by design, increasing significantly, and

WHEREAS, the substitution of an Honors Seminar course in place of one of the Tutorials is educationally sound because it mandates a second kind of learning experience rather than a repeat of the same kind of experience, and

WHEREAS, the required comprehensive examination in the major is, with considerable justification, held, by some of the units obliged to administer it under the current requirements, to be of dubious value, an unnecessary duplication of breadth requirements within the major, and a deterrent to some qualified students pursuing an Honors Degree, and

WHEREAS, certain clarifications and refinements in the wording of some present requirements (unchanged in substance) are needed, be it therefore

RESOLVED, that, effective September 1, 1992, the following becomes the official statement of the University's generic requirements for all Honors Baccalaureate degrees:

A candidate for an Honors Baccalaureate Degree must satisfy the following:

- I. The requirements for the baccalaureate degree in the major (including all University and college requirements), as well as any other specific requirements the major department may set for the Honors Degree.
- II. The generic requirements for the Honors Degree:
 - A. A University of Delaware cumulative grade point index of at least 3.40 at the time of graduation.
 - B. At least 60 of the total credits applicable to graduation taken at the 300 level or higher.
 - C. At least 30 credits earned in Honors courses. Of these Honors credits:
 1. At least 12 must be in the major department or in courses of collateral disciplines specifically required for the major.
 2. Three must be in the Honors Tutorial course.

3. Three must be in the Honors Seminar course (or in another seminar course specifically approved for this purpose by the Honors Program).
 4. At least 6 must be in areas outside those defined by the preceding items (1-3).
 5. At least 12 must be at the 300 level or higher.
- D. In addition to these 30 Honors credits, 6 credits of Honors thesis or project (UNIV 401/402) and the successful oral presentation of an acceptable thesis or project to a committee of faculty approved by the major department and the Honors Program. Although the candidate enrolls in UNIV 401/402 in the senior year, research and planning for the thesis or project should be well under way in the junior year.
- III. Submission of the Honors Degree Application Form, which can be done during the sophomore year and must be done no later than the end of the junior year, at the University Honors Program office.
-
- and be it further
- RESOLVED, that, in order to make the transition to the changed requirements smoother, the University Honors Program be authorized to:
1. Allow Honors Degree candidates graduating between now and the end of term 93S to satisfy requirements II, C, 2-3, by either two Tutorials or one Tutorial and one Seminar.
 2. Waive (for those graduating after June, 1991) the comprehensive exam requirement for those majors for which the sponsoring department requests that it be waived.
- M. Such items as may come before the Senate. (No motion introduced under new business, except a motion to refer to committee, shall be acted upon until the next meeting of the Senate.)

rg

Attachments: Committee Activities Report

1. Slate of Nominees
2. Committee Appointments
3. Minor in Cognitive Science
- 4a. Revision of the major in Entomology: General Entomology
- 4b. Revision of the major in Entomology: Wildlife Conservation
5. Revision of the Bachelor's Degree in Mechanical Engineering
6. Revisions of the B.S. and B.A. in Geology; Minor in Geology; B.A. in Geology; Paleobiology; B.A. Earth Science Education

7. Revision of the B.S. in Geophysics
8. Revision of the minor in Women's Studies
9. B.S. degree in Environmental Science
10. Honors Foreign Language Certificate Program
11. Honors B.S. in Agriculture
12. Policy for Responsible Computing Use
13. Resolution from NASULG
14. Honors Certificate
15. Generic Honors Degree Requirements

COMMITTEE ACTIVITIES REPORT

ACADEMIC APPEALS, CTE. ON (E. Naudain Simons)

Two resolutions being submitted for Senate consideration via Committees on Graduate and Undergraduate Studies

BUDGETARY AND SPACE PRIORITIES, COMMITTEE ON (L. Leon Campbell)

1. FY 91-91 University budget plan
2. FY 91-92 and 92-93 proposed budget reductions
3. Budget implications of final report of Computing and Information Resource Planning and Management Committee (September 1990)

CULTURAL ACTIVITIES AND PUBLIC EVENTS, COMMITTEE ON (Hilton Brown)

Ongoing review of request for funding forms for the current academic year

FACULTY WELFARE AND PRIVILEGES, CTE. ON (Gordon J. DiRenzo)

1. Four hearings on grievances in process
2. Revision of hearing procedures
3. Revision of Smoking Policy

GRADUATE STUDIES, COMMITTEE ON (Robert Dalrymple)

1. Examining Ph.D. in Economics proposal
2. Examining committee charge
3. Reviewing dissertation prizes guidelines

LIBRARY COMMITTEE (James L. Morrison)

1. Reduction of journal subscriptions
2. Library budgeting 1991-1995

/wc

Attachment 1

The following individuals have been nominated by the Committee on Committees and Nominations for various Senate offices during academic year 1991-92:

Vice President	Harrison Hall, Carole Marks
Secretary	Vivian Klaff, Judith Roof
Members, Committee on Committees and Nominations	Pamela Brown Thomas Calhoun Annette Shine David Smith
Member, Committee on Rules	Beth Haslett Anne Mooney

* * * * *

Biographies of the nominees will be distributed with ballot sheets.

APPOINTMENTS FOR CONFIRMATION

ACADEMIC APPEALS, CTE. ON

Chair: E. Naudain Simons

BUDGETARY AND SPACE PRIORITIES, CTE. ON

Chair: Stanley Sandler
Member: Judy VanName

CULTURAL ACTIVITIES AND PUBLIC EVENTS, CTE. ON

Chair: Hans P. Breurer
Member: Rosemary Hooper
Member: Andrea Barrier
Member: Bill Lawson
Member: Nicholas Cross

DIVERSITY AND AFFIRMATIVE ACTION, CTE. ON

Chair: Juan Villamarin
Member: Raymond Wolters

EDUCATION, COORDINATING CTE. ON

Member: Harrison Hall

FACULTY WELFARE AND PRIVILEGES, CTE. ON

Member & Chair: Reed Geiger
Member: Sandra Linda

GRADUATE STUDIES, CTE. ON

Member: Paul Hooper
Member: Henry Foley
Member: Jack Smith
Member: John Byrne

INSTRUCTIONAL, COMPUTING AND RESEARCH SUPPORT SERVICES, CTE. ON

Chair: Robert Wilson
Member: Christine Kydd
Member: Cindy Okolo
Member: Shurish Advani
Member: James L. Morrison
Member: Xiao-Hai Yan
Member: Linda Matocha

INTERNATIONAL STUDIES, CTE. ON

Chair: Barbara Viera
Member: Herbert Kingsbury
Member: Joanne Ryan

LIBRARY COMMITTEE

Member & Chair: Leonard Schwartz
Member: James Davis
Member: Robert L. Nelson
Member: Janice Bibik

PROMOTIONS AND TENURE, CTE. ON

Chair: Russell Settle
Member: James Hiebert
Member: Dene Klinzing
Member: Thomas Lathrop

RESEARCH, CTE. ON

Chair: Carroll Izard
Member: Marian Palley
Member: K. Conway-Turner
Member: William Daniels
Member: Robert Carroll

RETIRING, RETIRED & EMERITI FACULTY, SUBCTE. ON

Member & Chair: Robert Stark¹

STUDENT & FACULTY HONORS, CTE. ON

Member & Chair: Linda Gottfredson
Member: Araya Debessay
Member: Loreto Jackson
Member: Robert Warren

STUDENT LIFE, CTE. ON

Member & Chair: Robert Bennett
Member: James Fischer
Member: Kim Fromme

UNDERGRADUATE STUDIES, CTE. ON

Chair: Michael Keefe
Member: Thompson Pizzolato
Member: Samuel Gaertner
Member: Zoubeida Dagher
Member: Nancy Cotugna
Member: Linda Bucher
Member: M. Provost-Craig

1. One-year appointment.



University of Delaware

Attachment 3

COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF LINGUISTICS
46 E. DELAWARE AVENUE
NEWARK, DELAWARE 19716

(302) 451-6806

TO: Harrison Hall
Chair, Undergraduate Studies

FROM: William Frawley *W.F.*
Professor

DATE: April 3, 1991

RE: Cognitive Science Minor

The proposed minor in Cognitive Science was returned to committee at the Senate meeting of February 11, 1991. There were two reasons for this action:

1. Worries about whether the Department of Linguistics would be abolished and thus not be able to house the minor;
2. Worries about uneven distribution of courses (e.g. a CIS major could get the minor by taking 4 of 6 courses in CIS).

As to #1, the department will not be abolished. As to #2, it is unclear to us why this is a liability since Cognitive Science is heavily computational to begin with (note also that a student can get a minor in Irish Studies by taking 4 of the required 5 courses in History). Nonetheless, we can appreciate the worry and so would like to add the following restriction: no more than 3 courses may be from a single department. Attached is a revised proposal with this restriction included. We hope that the minor can now go forward.

COGNITIVE SCIENCE MINOR

MOTIVATION FOR MINOR

The Cognitive Science Research Group -- a consortium of faculty principally from the Departments of Linguistics, Psychology, Computer and Information Science and Educational Studies -- wishes to establish an undergraduate minor in cognitive science. Since the Cognitive Science Research Group does not have departmental status, the minor will be housed in the Department of Linguistics and administered by the Executive Committee of the Cognitive Science Group, which has representatives from the departments listed above.

Cognitive science is a new discipline that has emerged in the convergence of linguistics, philosophy, computer science (especially artificial intelligence), and psychology to study the computational and representational structure of the mind. Although cognitive science draws heavily on these areas, it is distinct from all four. For example, of all the subfields of linguistics, theoretical linguistics (and especially theoretical syntax) principally contributes to cognitive science since theoretical linguistics investigates the formal, universal structure of language. A number of schools across the country have full degree programs in the discipline: Lehigh and Brandeis, e.g., offer four-year programs leading to the B.S. in cognitive science.

Because cognitive science is a discrete discipline and cannot really be studied as a subfield of any of the contributing disciplines, the participating faculty typically receive a number of requests from undergraduates for some formal degree program in the area. But these requests cannot be accommodated in any traditional way at present: one undergraduate, for example, is pursuing cognitive science via the Dean's Scholar Program. An undergraduate minor in cognitive science therefore is an appropriate way to meet students' expressed needs for certified study in a new discipline.

PROPOSED CURRICULUM

The minor in cognitive science requires 18 credits, distributed as follows (students are advised that most of these courses have prerequisites, as listed):

- A. All the following:
 - LIN 101 Introduction to Linguistics
 - PSY 201 General Psychology
 - CIS 105 General Computer Science
 - or CIS 180 Introduction to Computer Science I
(prereq.: CIS 105 or programming experience)

B. One of the following:

LIN 409 Syntax I (Prereq: LIN 101)
LIN 491 Semantics (Prereq: LIN 101)
CIS 480 Computers and the Mind
PSY 340 Cognition (Prereq: PSY 201)

C. Two of the following:

PSY 310 Sensation & Perception (Prereq: PSY 309)
PSY 314 Brain & Behavior
CIS 220 Data Structures (Prereq: CIS 181)
CIS 681 Artificial Intelligence (Prereq: CIS 220 & 310)
PHL 205 Logic
EDS 462 Language Acquisition
LIN 610 Syntax II (Prereq: LIN 409)
The two courses not chosen under B

No more than 3 courses may be from a single department.

RATIONALE FOR COURSES

Courses under group A are considered core courses for cognitive science. Much of the work in cognitive science has focused on natural language processing, so a grasp of the basic issues in linguistics, psychology, and computing is essential.

Courses under Group B are considered advanced versions of the core courses of A, but with a narrower focus toward mental representation and computation. Syntax I and Semantics introduce the students to theoretical issues in linguistic representation, Cognition focuses on mental processing, Computers and the Mind surveys epistemological issues.

Courses in Group C represent specialized study and are included to accommodate students' narrower interests in cognition, data processing, language and formal representation. For those students who wish to retain a broader view of cognitive science, the two courses not elected under Group B are allowed to count here.

FREQUENCY AND PREREQUISITES

All courses that count for the minor are offered regularly. The courses in A are offered every semester; those in B and C at least every other semester.

Certain courses for the minor have prerequisites. The minor is designed with these conditions in mind. Courses in Group A generally have no prerequisite (CIS 180 requires the other option CIS 105, so either is sufficient) and are also the prerequisites for those courses in Group B that do require prerequisites. Courses in Group C, because they are more

specific, sometimes have additional prerequisites. It is assumed that students who take these courses (in Group C) have a narrower sense of cognitive science, are studying in the specific department involved, and therefore have taken the necessary required courses. For example, a student majoring in CIS may take the minor in cognitive science and for Group C may take CIS 220 and 681, but his/her major requirement already prepares him/her for these courses. For those students who wish to pursue a less specific version of cognitive science, the two courses for Group B are available, and, as already noted, the Group A courses provide the prerequisites.

NEW COURSES

The Cognitive Science Research Group plans to develop a two-course sequence in cognitive science proper, and when this is in place, it will substitute for some courses in Group B and C. Before this sequence is developed, however, the faculty involved plan to submit a CTE grant for course development and to offer the course on an experimental (467) basis.

STUDENTS AND FACULTY

Students who elect the minor in cognitive science will come primarily from the following departments: Psychology, Computer Science, Educational Studies, Foreign Languages and Literature, and Philosophy. (There is no undergraduate degree offered by Linguistics.) It is anticipated that a number of other students from the Dean's Scholar and BALS Programs will also take the minor in cognitive science.

Since the minor simply codifies courses already in place, no new resources are required and no new teaching obligations are placed on current faculty. Only advisement of students is needed, and the Department of Linguistics is willing and prepared to perform that task through its Undergraduate Studies Committee.

IMPACT

Since the proposed minor is really an attempt to coordinate efforts that are already in place, the impact on staff and resources is negligible. On the other hand, the intellectual impact is considerable. Coursework leading to a formal certification in cognitive science is very forward-looking and it meshes well with both student requests and the interdisciplinary interests of the Cognitive Science Research Group.

COLLEGE: AGRICULTURAL SCIENCES
DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY

DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
MAJOR: ENTOMOLOGY
CONCENTRATION: GENERAL ENTOMOLOGY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.[#] 3

COLLEGE REQUIREMENTS

Mathematics and Computer Science

Mathematics (MATH 115, 171 or higher level) 3¹

Computer Science course selected from CISC 105, AGE 111, 3¹
FREC 235, or equivalent

Agricultural and Biological Sciences 9-12¹⁻³

Minimum of one course outside the student's major in
three of the following areas: Animal Science, Food and
Resource Economics, Food Science, Agricultural Engineering,
Entomology and Applied Ecology, Plant and Soil Science
or Biology.

Literature and Arts 6^{2,3}

Six credits selected from the general areas of
English, Art, Art History, Communication, Music,
Theatre or Foreign Language.

Social Sciences and Humanities 9^{2,3}

Minimum of one course in three of the following areas:
Anthropology, Black American Studies, Criminal Justice,
Economics, Education, Geography, History, Philosophy,
Political Science, Psychology, Sociology, or Women's Studies.

Physical Sciences 8¹

Minimum of eight credits selected from one of
the following areas: Chemistry, Physics, Geology
or Physical Science.

*Superior figures indicate year or years in which the course is normally taken,
i.e., ¹freshman year, ²sophomore year, etc.

[#]This requirement may be fulfilled through a course taken to complete major, group,
breadth, or elective requirements.

General Entomology Concentration - continued p. 2

MAJOR REQUIREMENTS*

CREDITS

Within or External to the College

AGRI 211	Literature of Agricultural & Life Sciences	1 ^{1,2}
BISC 207	Introductory Biology I	4 ^{1,2}
BISC 208	Introductory Biology II	4 ^{1,2}
BISC 302	General Ecology	3 ³
CHEM 101	General Chemistry	4 ¹
or		
CHEM 103	General Chemistry	4 ¹
CHEM 102	General Chemistry	4 ¹
or		
CHEM 104	General Chemistry	4 ¹

Within the Department**

ENTO 205	Elements of Entomology	3 ¹
ENTO 305	Entomology Laboratory	2 ^{1,2}
ENTO 406	Insect Identification--Taxonomy	3 ^{2,3}
ENTO 465	Seminar	1 ⁴

Within the Concentration**

ENTO 300	Principles of Animal and Plant Genetics	3 ^{3,4}
ENTO 405	Insect Structure and Function	4 ⁴
ENTO 408	Field Taxonomy	2 ^{3,4}
ENTO courses (may include 3 cr. maximum of Independent Study and Research)		6 ²⁻⁴

9 credits from the following:

Biology courses at or above 300 level and the following PLSC courses:		
PLSC 151	Introduction to Crop Science	3
PLSC 201	Botany II	4
PLSC 204	Introduction to Soil Science	4
PLSC 211	Herbaceous Landscape Plants	3
PLSC 212	Woody Landscape Plants	4
PLSC 303	Introductory Plant Pathology	4
PLSC 402	Plant Taxonomy	3

ELECTIVES

Electives 30
 May include Military Science, Music, or Physical Education. (Only four credits of activity-type Physical Education and/or four credits of performing Music organization credit may be counted toward the degree.)

CREDITS TO TOTAL A MINIMUM OF 124

*A course may be applied toward both a major and college requirement unless noted otherwise, but credits are counted only once toward the total credits for graduation.

**A grade of C or better is required for all ENTO credits used to satisfy departmental and concentration requirements.

COLLEGE: AGRICULTURAL SCIENCES
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
 MAJOR: ENTOMOLOGY (ENT)

PAGE 1

CONCENTRATION: ~~ENTOMOLOGY~~
 GENERAL ENTOMOLOGY

SUGGESTED CURRICULUM

CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
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UNIVERSITY REQUIREMENTS

E	110	Critical Reading and Writing	3	X			
XX	XXX	#Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X

COLLEGE REQUIREMENTS

Mathematics and Computer Sciences 171

M	XXX	Mathematics course (M 115 or higher level)	3	X			
XX	XXX*	A Computer Science course chosen from the following:	3	X	X		
CIS	105	General Computer Science	3				
AGE	111	Computer Applications in Engineering Technology	3				
AEC	235	Introduction to Data Analysis	3				
XX	XXX	or the equivalent	3				

Agricultural and Biological Sciences

Minimum of one course outside the student's major in three of the following areas: Food and Resource Economics, Agricultural Engineering, Animal Science, Entomology and Applied Ecology, Plant Science or Biology.

9-12 X X

Literature and Arts

Six credits selected from the general areas of English, Art, Art History, Communication, Music, Theatre or foreign language.

6 X

Social Sciences and Humanities

Minimum of one course in three of the following areas: Anthropology, Black American Studies, Criminal Justice, Economics, Education, Geography, History, Philosophy, Political Science, Psychology, Sociology or Women's Studies.

9 X

Physical Sciences

Minimum of eight credits selected from one of the following areas: Chemistry, Physics, Geology or Physical Science.

8 X

MAJOR REQUIREMENTS

See Attached Page

Within or External to the College

COLLEGE: AGRICULTURAL SCIENCES
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
 MAJOR: ENTOMOLOGY (ENT)
 CONCENTRATION: GENERAL ENTOMOLOGY

PAGE 2

SUGGESTED CURRICULUM

<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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See Attached Page

ELECTIVES

Electives

30

X

X

X

May include Military Science, Music or Physical Education. (Only two credits of activity type Physical Education and/or two credits of performing Music organization credit may be counted toward the degree.)

CREDITS TO TOTAL A MINIMUM OF

124

#This requirement may be fulfilled thru a course taken to complete major requirements, group requirements, breadth or elective requirements.

*Note: A course may be applied both towards the major requirement and a college requirement, but credits are counted only once towards the total credits for graduation.

** A grade of C or better is required for all ENTOM credits used to satisfy departmental and concentration requirements.

COLLEGE: AGRICULTURAL SCIENCES
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
 MAJOR: ENTOMOLOGY (ENTO)
 CONCENTRATION: GENERAL ENTOMOLOGY

<u>CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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MAJOR REQUIREMENTS

Within or External to the College

AGRI 211 Literature of Agricultural & Life Sciences	1	X	X		
BISC 207 Introductory Biology I	4	X	X		
BISC 208 Introductory Biology II	4	X	X		
CHEM 101 General Chemistry	4	X			
or					
CHEM 103 General Chemistry	4	X			
CHEM 102 General Chemistry	4	X			
or					
CHEM 104 General Chemistry	4	X			

Within the Department

ENTO 205 Elements of Entomology	3	X			
ENTO 305 Entomology Laboratory	2	X	X		
ENTO 406 Insect Identification - Taxonomy	3		X	X	
ENTO 465 Seminar	1				X

Within the Concentration**

ENTO 300 Principles of Animal & Plant Genetics	3			X	X
ENTO 405 Insect Structure and Function	4				X
ENTO 408 Field Taxonomy	2			X	X
ENTO courses (May include 3 credits of Independent Study and Research)	6		X	X	X

9 credits from the following:

Biology courses at or above 300 level and the following PLSC courses:

PLSC 151 Introduction to Crop Science	3			X	X
PLSC 201 Botany II	4			X	X
PLSC 204 Introduction to Soil Science	4			X	X
PLSC 211 Herbaceous Landscape Plants	3			X	X
PLSC 212 Woody Landscape Plants	4			X	X
PLSC 303 Introductory Plant Pathology	4			X	X
PLSC 402 Plant Taxonomy	3			X	X

COLLEGE: AGRICULTURAL SCIENCES
DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY

DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
MAJOR: ENTOMOLOGY
CONCENTRATION: WILDLIFE CONSERVATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing 3¹⁻⁴
multicultural, ethnic, and/or gender-related content.*

COLLEGE REQUIREMENTS

Mathematics and Computer Science

Mathematics (MATH 115, 171 or higher level) 3¹

Computer Science course selected from CISC 105, AGE 111, 3¹
FREC 235, or equivalent

Agricultural and Biological Sciences 9-12¹⁻³

Minimum of one course outside the student's major in
three of the following areas: Animal Science, Food and
Resource Economics, Food Science, Agricultural Engineering,
Entomology and Applied Ecology, Plant and Soil Science
or Biology.

Literature and Arts 6^{2,3}

Six credits selected from the general areas of
English, Art, Art History, Communication, Music,
Theatre or Foreign Language.

Social Sciences and Humanities 9^{2,3}

Minimum of one course in three of the following areas:
Anthropology, Black American Studies, Criminal Justice,
Economics, Education, Geography, History, Philosophy,
Political Science, Psychology, Sociology, or Women's Studies.

Physical Sciences 8¹

Minimum of eight credits selected from one of
the following areas: Chemistry, Physics, Geology
or Physical Science.

*Superior figures indicate year or years in which the course is normally
taken, i.e., ¹freshman year, ²sophomore year, etc.

*This requirement may be fulfilled through a course taken to complete major,
group, breadth, or elective requirements.

Wildlife Conservation Concentration - continued p. 2

MAJOR REQUIREMENTS*

CREDITS

Within or External to the College

AGRI 211	Literature of Agricultural & Life Sciences	1 ^{1,2}
BISC 207	Introductory Biology I	4 ^{1,2}
BISC 208	Introductory Biology II	4 ^{1,2}
BISC 302	General Ecology	3 ³
CHEM 101	General Chemistry	4 ¹
or		
CHEM 103	General Chemistry	4 ¹
CHEM 102	General Chemistry	4 ¹
or		
CHEM 104	General Chemistry	4 ¹

Within the Department**

ENTO 205	Elements of Entomology	3 ^{1,2}
ENTO 305	Entomology Laboratory	2 ^{1,2}
ENTO 406	Insect Identification--Taxonomy	3 ^{2,3}
ENTO 465	Seminar	1 ⁴

Within the Concentration**

ENTO 201	Wildlife Conservation and Ecology	3 ^{1,2}
ENTO 325	Wildlife Management	3 ^{2,3}
ENTO 318	Taxonomy of Birds	2 ^{2,3}
ENTO 418	Avian Biology	2 ^{3,4}
ENTO 425	Mammalogy	3 ^{3,4}
ENTO courses (may include 3 cr. of Independent Study and Research) ...		5 ²⁻⁴

Group I. 8 credits from the following (or higher levels of CHEM and PHYS):

CHEM 213	Elementary Organic Chemistry	4 ^{2,3}
CHEM 214	Elementary Biochemistry	3 ^{2,3}
CHEM 216	Elementary Biochemistry Laboratory	1 ^{2,3}
GEOG 206	Physical Geography: Topography-Soils	3 ²⁻⁴
GEOL 107	General Geology I	4 ²⁻⁴
GEOL 108	General Geology II	4 ²⁻⁴
PHYS 201	General Physics	4 ²⁻⁴
PHYS 202	General Physics	4 ²⁻⁴
PLSC 204	Introduction to Soil Science	4 ²⁻⁴

*A course may be applied toward both a major and college requirement unless noted otherwise, but credits are counted only once toward the total credits for graduation.

**A grade of C or better is required for all ENT credits used to satisfy departmental and concentration requirements.

Group II. 8 credits from the following:

ANSC 140	Functional Anatomy of Domestic Animals	4 ²⁻⁴
BISC 301	Molecular Biology of the Cell	4 ^{3,4}
BISC 303	Genetics and Evolutionary Biology	4 ^{3,4}
BISC 305	Cell Biology	4 ^{3,4}
BISC 306	General Physiology	4 ^{3,4}
BISC 312	General Ecology Lab	1 ^{3,4}
BISC 324	Invertebrate Zoology	4 ^{3,4}
BISC 371	Introduction to Microbiology	4 ²⁻⁴
BISC 442	Vertebrate Morphology	4 ^{3,4}
BISC 494	Experimental Ecology	3 ^{3,4}
BISC 495	Evolution	3 ^{3,4}
BISC 680	Vertebrate Natural History	4 ⁴
ENTO 300	Principles of Animal and Plant Genetics	3 ^{3,4}
ENTO 310	Animal and Plant Genetics Laboratory	1 ^{3,4}
(same as ENTO 300, 310; may not count for both Group II and III.)		

Group III. 6 credits from the following:

BISC 440	Natural History of Plants	4 ^{3,4}
PLSC 101	Botany I	4 ^{2,3}
PLSC 201	Botany II	4 ^{2,3}
PLSC 300	Principles of Animal and Plant Genetics	3 ^{3,4}
PLSC 310	Animal and Plant Genetics Lab	1 ^{3,4}
(same as ENTO 300, 310; may not count for both Group II and III.)		
PLSC 402	Plant Taxonomy	3 ^{3,4}
PLSC 410	Introduction to Plant Physiology	3 ^{3,4}

Group IV. 6 credits from the following:

Only 3 may count toward the College Literature and Arts Group Requirement.		
COMM 255	Fundamentals of Communication	3 ²⁻⁴
COMM 312	Oral Communications in Business	3 ²⁻⁴
COMM 350	Public Speaking	3 ²⁻⁴
ENGL 301	Problems in Composition	3 ²⁻⁴
ENGL 307	News Writing and Editing	3 ²⁻⁴
ENGL 309	Feature and Magazine Writing	3 ²⁻⁴
ENGL 312	Written Communications in Business	3 ²⁻⁴
ENGL 410	Technical Writing	3 ^{3,4}
THEA 102	Introduction to Performance	3 ²⁻⁴
THEA 204	Introduction to Voice and Speech	3 ²⁻⁴
THEA 220	Movement and Non-Verbal Communication	3 ²⁻⁴

Group V. 6 credits from the following or higher-levels in addition to college math and computer requirements:

AGEG 111	Computer Applications in Engineering Technology	3 ²⁻⁴
or		
CISC 105	General Computer Science	3 ²⁻⁴
or		
GEOG 250	Computer Methods in Geography	3 ²⁻⁴
FREC 408	Research Methods	3 ^{3,4}
MATH 221	Calculus I	3 ¹⁻³
MATH 222	Calculus II	3 ^{2,3}
MATH 230	Finite Mathematics with Applications	3 ^{3,4}
STAT 201	Introduction to Statistics I	3 ^{3,4}
STAT 202	Introduction to Statistics II	3 ^{3,4}

Group VI. 6 credits from the following:

ECON 151	Introduction to Microeconomics	3 ²⁻⁴
or		
FREC 120	Elementary Agricultural Economics	3 ^{1,2}
(Either of two previous courses is prerequisite to FREC 424, 444)		
FREC 424	Resource Economics: Theory and Policy	3 ⁴
FREC 444	Economics of Environmental Management	3 ⁴
GEOL 234	Earth Resources and Ecology	3 ²⁻⁴
GEOL 421	Environmental and Applied Geology	3 ^{3,4}
GEOG 235	Conservation of Natural Resources	3 ²⁻⁴
GEOG 236	Conservation: Global Issues	3 ²⁻⁴
POSC 105	American Political System	3 ¹⁻⁴
POSC 220	Introduction to Public Policy	3 ²⁻⁴
POSC 350	Politics and the Environment	3 ²⁻⁴
SOCI 210	Population Problems	3 ²⁻⁴

ELECTIVES

Electives 12-21
(Number of elective credits depends on number of courses chosen for concentration groups that also satisfy college requirements. May include Military Science, Music, or Physical Education. (Only four credits of activity-type Physical Education and/or four credits of performing Music organization credit may be counted toward the degree.)

CREDITS TO TOTAL A MINIMUM OF 124

COLLEGE: AGRICULTURAL SCIENCES
DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY
DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE
MAJOR: ENTOMOLOGY (ENTO)
CONCENTRATION: WILDLIFE CONSERVATION

<u>CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
<u>MAJOR REQUIREMENTS</u>					
<u>Within or External to the College</u>					
AGRI 211 Literature of Agricultural & Life Sciences	1	X	X		
BISC 207 Introductory Biology I	4	X	X		
BISC 208 Introductory Biology II	4	X	X		
CHEM 101 General Chemistry or	4	X			
CHEM 103 General Chemistry	4	X			
CHEM 102 General Chemistry or	4	X			
CHEM 104 General Chemistry	4	X			
<u>Within the Department</u>					
ENTO 205 Elements of Entomology	3	X			
ENTO 305 Entomology Laboratory	2	X	X		
ENTO 406 Insect Identification - Taxonomy	3			X	X
ENTO 465 Seminar	1				X
<u>Within the Concentration**</u>					
ENTO 201 Wildlife Conservation and Ecology	3	X			
ENTO 325 Wildlife Management	3		X		
ENTO 318 Taxonomy of Birds	2		X	X	
ENTO 418 Avian Biology	2				X
ENTO 425 Mammalogy	3			X	
ENTO courses (May include 3 credits of Independent Study and Research)	5		X	X	X
<u>Group I. 8 credits from the following (or higher levels of CHEM and PHYS):</u>					
CHEM 213 Elementary Organic Chemistry	4		X	X	
CHEM 214 Elementary Biochemistry	3		X	X	
CHEM 216 Elementary Biochemistry Lab	1		X	X	
GEOG 206 Physical Geography: Topography - Soils	3		X	X	X
GEOL 107 General Geology I	4		X	X	X
GEOL 108 General Geology II	4		X	X	X
PHYS 201 General Physics	4		X	X	X
PHYS 202 General Physics	4		X	X	X
PLSC 204 Introduction to Soil Science	4		X	X	X
<u>Group II. 8 credits from the following:</u>					
ANSC 140 Functional Anatomy in Domestic Animals	4			X	X
BISC 301 Molecular Biology of the Cell	4			X	X
BISC 303 Genetic and Evolutionary Biology	4			X	X
BISC 305 Cell Biology	4			X	X
BISC 306 General Physiology	4			X	X
BISC 312 General Ecology Lab	1			X	X
BISC 324 Invertebrate Zoology	4			X	X
BISC 371 Introduction to Microbiology	4			X	X
BISC 442 Vertebrate Morphology	4			X	X
BISC 494 Experimental Ecology	3			X	X
BISC 495 Evolution	3			X	X
BISC 680 Vertebrate Natural History	4				X
ENTO 300 Principles of Animal and Plant Genetics	3			X	X
ENTO 310 Animal and Plant Genetics Lab	1			X	X
(ENTO/PLSC 300,310 may not count for both Group II and III)					

Group III. 6 credits from the following:

BISC 440	Natural History of Plants	4			X	X
PLSC 101	Botany I	4		X	X	
PLSC 201	Botany II	4		X	X	
PLSC 300	Principles of Animal and Plant Genetics	3			X	X
PLSC 310	Animal and Plant Genetics Lab	1			X	X
(ENTO/PLSC 300,310 may not count for both Group II and III)						
PLSC 402	Plant Taxonomy	3			X	X
PLSC 410	Introduction to Plant Physiology	3			X	X

Group IV. 6 credits from the following:

COMM 255	Fundamentals of Communication	3		X	X	X
COMM 312	Oral Communication in Business	3		X	X	X
COMM 350	Public Speaking	3		X	X	X
ENGL 301	Problems in Composition	3		X	X	X
ENGL 307	News Writing and Editing	3		X	X	X
ENGL 309	Feature and Magazine Writing	3		X	X	X
ENGL 312	Written Communications in Business	3		X	X	X
ENGL 410	Technical Writing	3			X	X
THEA 102	Introduction to Performance	3		X	X	X
THEA 204	Introduction to Voice and Speech	3		X	X	X
THEA 220	Movement and Non-Verbal Communication	3		X	X	X

Group V. 6 credits from the following or higher levels in addition to college requirements:

AGEN 111	Computer Applications in Engineering Tech.	3		X	X	
or						
CISC 105	General Computer Science	3		X	X	
or						
GEOG 250	Computer Methods in Geography	3		X	X	
FREC 408	Research Methods	3			X	X
MATH 221	Calculus I	3	X	X		
MATH 222	Calculus II	3		X	X	
MATH 230	Finite Math with Applications	3			X	X
STAT 201	Introduction to Statistics I	3		X	X	
STAT 202	Introduction to Statistics II	3		X	X	

Group VI. 6 credits from the following:

ECON 151	Introduction to Microeconomics	3		X	X	X
or						
FREC 120	Elementary Agricultural Economics	3	X	X		
FREC 424	Resource Economics: Theory and Policy	3				X
FREC 444	Economics of Environmental Management	3				X
GEOL 234	Earth Resources and Ecology	3		X	X	
GEOL 421	Environmental and Applied Geology	3			X	X
GEOG 235	Conservation of Natural Resources	3		X	X	
GEOG 236	Conservation: Global Issues	3		X	X	
POSC 105	American Political System	3	X	X	X	
POSC 220	Introduction to Public Policy	3		X	X	
POSC 350	Politics and the Environment	3		X	X	X
SOCI 210	Population Problem	3		X	X	X



University of Delaware

Attachment 5

DEPARTMENT OF MECHANICAL ENGINEERING
SPENCER LABORATORY
NEWARK, DELAWARE 19716

(302) 451-2421
FAX: (302) 292-3619

November 12, 1990

To: Chair, Committee on Undergraduate Studies

From: Michael Keefe, Curriculum Committee Chairman,
Mechanical Engineering Department *MR*

Re: Modification of Requirements for the Bachelor's Degree in
Mechanical Engineering

The Department of Mechanical Engineering has taught its own section of EGGG 125 for a number of years now. The section of that course required of Mechanical Engineering majors is three credits versus the section of that course required of Civil Engineering majors which is two credits. The fact that two distinct and unique courses have the same name is quite confusing to the incoming freshman. Since the courses are separate, we propose, in essence, to rename the Mechanical Engineering section to MEEG 125.

This will require us to "create" a course MEEG 125 (which will be identical to the course that our department currently teaches called EGGG 125), and then to change all EGGG 125 listings in our curriculum to MEEG 125.

COLLEGE: ENGINEERING
 DEPARTMENT: MECHANICAL ENGINEERING
 DEGREE: BACHELOR OF MECHANICAL ENGINEERING
 MAJOR: MECHANICAL ENGINEERING (ME)

PAGE 2

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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Courses in Black American Studies, Honors Colloquia, and Women's Studies are individually classified, as are courses in Early American Culture, and other specialized programs. Arts and Science "Group D" courses may not be used to satisfy the General Education Program (refer to College of Arts and Science Group Requirements in this Undergraduate Academic Programs and Policies Catalog). Students can obtain a listing of approved courses for the General Education Program from their respective departments or from the Dean's Office, College of Engineering (135 du Pont Hall). The faculty adviser must be consulted for classification of courses under General Education.

MAJOR REQUIREMENTS

External to the College

<u>Chemistry</u>					
C 103	General Chemistry	3	X(F)		
C 104	General Chemistry	4	X(S)		
XX	xxx An additional course (minimum of three credits) which can be either Air Force ROTC or a course outside the College of Engineering (not including mathematics or science or courses in the "Group D" classification of the College of Arts and Science).	3		X(F)	

Within the College

EE <u>MEEG 125</u>	125 Introduction to Engineering (ME)	3	X(F)		
EG	132 Engineering Graphics/Analysis	2	X(S)		
MAT	302 Material Science for Engineers	4		X(S)	
MEC	305 Fluid Mechanics	3			X(F)
MEC	306 Fluid Mechanics Laboratory	1			X(F)
EE	314 Electronics and Instrumentation	4			X(F)

Within the Department

ME	213 Principles of Mechanics I	3	X(F)		
ME	214 Principles of Mechanics II	3	X(S)		
ME	307 Thermodynamics I	3			X(F)
ME	308 Thermodynamics II	3			X(S)
ME	313 Strength of Materials	4	X(S)		
ME	316 Materials Engineering	3			X(F)
ME	347 Mechanical Design I	3			X(F)
ME	348 Mechanical Design II	3			X(S)
ME	361 Applied Engineering Analysis	3			X(F)
ME	391 Engineering Science Laboratory I	4			X(S)
ME	336 Fluid Mechanics II	3			X(S)
ME	302 Heat Transfer	3			X(S)
ME	427 System Dynamics I	3			
ME	447 Design and Systems Synthesis I	3			X(F)
ME	448 Design and Systems Synthesis II	3			X(F)
					X(S)

MOVE
Down

COLLEGE: ARTS AND SCIENCE - ENGINEERING
 DEPARTMENT: DEPENDENT UPON AREA OF CONCENTRATION - MECHANICAL ENGINEERING
 DEGREE: BACHELOR OF ARTS OR BACHELOR OF SCIENCE - BACHELOR OF MECHANICAL ENGINEERING
 MAJOR: SELECTED ARTS AND SCIENCE MAJOR - MECHANICAL ENGINEERING (LAM)

PAGE 2

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	1ST YEAR	2ND YEAR	3RD YEAR	4TH YEAR	5TH YEAR
		<u>STUDENT</u> <u>COMPLETES</u>	<u>STUDENT</u> <u>COMPLETES</u>	<u>STUDENT</u> <u>COMPLETES</u>	<u>STUDENT</u> <u>COMPLETES</u>	<u>STUDENT</u> <u>COMPLETES</u>

The liberal arts component is listed as 54 credit hours. The absolute minimum required to satisfy the requirements listed above is 45; this assumes that the foreign language requirement is satisfied from high school work, the writing course is in one of the Groups A, B, or C, and that nine credits of the Area of Concentration are also from one of the Groups A, B, or C. Thus, students without language skills and concentrating in science or mathematics will need more than 54 credit hours to complete all of these requirements.

EG - COLLEGE REQUIREMENTS

Mathematics

M	241	Analytic Geometry and Calculus A	4	X(F)		
M	242	Analytic Geometry and Calculus B	4	X(S)		
M	243	Analytic Geometry and Calculus C	4		X(F)	
M	302	Ordinary Differential Equations	3		X(S)	

Physics

PS	207	General Physics	4		X(F)	
PS	208	General Physics	4		X(S)	

EG - MAJOR REQUIREMENTS

External to the College

Chemistry

C	103	General Chemistry	4	X(F)		
C	104	General Chemistry	4	X(S)		

Within the College

MEEG 125

EG	125	Introduction to Engineering (ME)	3	X(F)		
EG	132	Engineering Graphics/Analysis	2	X(S)		
MAT	302	Material Science for Engineers	4		X(S)	
EE	314	Electronics and Instrumentation	4			X(F)
MEC	305	Fluid Mechanics	3			X(F)
MEC	306	Fluid Mechanics Laboratory	1			X(F)

Within the Department

ME	213	Principles of Mechanics I	3		X(F)	
ME	214	Principles of Mechanics II	3		X(S)	
ME	313	Strength of Materials	4		X(S)	
ME	361	Applied Engineering Analysis	3			X(F)
ME	307	Thermodynamics I	3			X(F)
ME	308	Thermodynamics II	3			X(S)
ME	316	Materials Engineering	3			X(F)
ME	347	Mechanical Design I	3			X(F)
ME	348	Mechanical Design II	3			X(S)
ME	391	Engineering Science Laboratory I	4		X(S)	
ME	336	Fluid Mechanics II	3			X(S)
ME	302	Heat Transfer	3			X(S)
ME	427	System Dynamics I	3			
ME	447	Design and Systems Synthesis I	3			X(F)
ME	448	Design and Systems Synthesis II	3			X(F)
						X(S)



University of Delaware

Attachment 6

COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF GEOLOGY
101 PENNY HALL
NEWARK, DELAWARE 19716

January 16, 1990

(302) 451-2569
FAX: (302) 451-8000

TO: Cindy Waksmonski
College of Arts and Science

FROM: Bill P. Glass, Chairperson *B P. Glass*
Department of Geology

SUBJECT: Curriculum Revisions, Department of Geology

Attached are proposed curriculum revisions for the Bachelor of Science, Bachelor of Arts, and minor in Geology undergraduate programs of study. These revisions were approved by the Faculty of the Department of Geology on January 15, 1991. The revision of our undergraduate B.S. degree is undertaken in recognition of significant changes in our profession of geology over the past decade. The curriculum revision is designed to significantly widen the breadth of geological/geophysical knowledge expected of our future B.S. degree geology majors.

The proposed changes to the geology curriculum include:

- 1) modifying GEOL 107, an introductory-level course, to include a component on historical geology
- 2) dropping GEOL 108, an introductory-level historical geology course, and introducing an integrative, senior-level replacement course (GEOL 402)
- 3) modifying our mineralogy courses (GEOL 203 and 204),
- 4) adding a required new geophysics course (GEOL 452),
- 5) increasing the number of credits in elective geology courses from 5 to 9
- 6) reducing the GEOL 203, GEOL 301, GEOL 305, and GEOL 407 courses from four to three credits
- 7) dropping GEOL 433 - Geowriting, the department's course that fulfilled the College of Arts and Science second writing course requirement, students will meet this requirement by choosing a second writing course as designated in the semester's Registration Booklet

We have modified the Bachelor of Arts degrees and the minor in Geology as a result of these curriculum revisions.

It is our intent to initiate all elements of the program as soon as approved by appropriate committees. Faculty work loads will be adjusted to accomodate our new program. No new faculty are needed for this curriculum revision.

Specific Notes To Reviewers of Proposed Curriculum Revision

- 1) All new or revised courses will be submitted for approval during the 1991 spring cycle
- 2) Number of geology credits in the major for the B.S. has been increased by 2 credits from 45 to 47.
- 3) The number of credits in breadth requirements for the B.S. was reduced from 30 to 18 to equal the number required for the B.S. in geophysics and to be in line with number of required credits for other B.S. degrees, e.g., B.S. Chemistry - 21 credits in breadth requirements, Computer Science - 18 credits, Mathematics - 21 credits, Physics - 21 credits
- 4) Number of geology credits in the major for the B.A. in Geology has been increased by 2 credits from 33 to 35
- 5) Number of credits in the major for the B.A. - Concentration in Paleobiology has been reduced by 7 geology credits and by 8 supporting science credits. The number of science credits required in the concentration was high (82 credits, actually higher than some B.S. degrees within the college). The reduction by 15 credits is to bring the science requirements to an appropriate level for the B.A. degree.
- 6) Number of credits in the major for the B.A. - Earth Science Education has been decreased by 1 credit

LIST OF NEW OR REVISED COURSE DESCRIPTIONS

GEOL 107 General Geology 4

Principles of physical and historical geology and their application in interpreting earth processes and the history of the earth. Laboratory covers identification of earth materials including fossils and the interpretation of topographic and geologic maps. For majors in geology and in other sciences and engineering. Only one course among GEOL 105 and GEOL 107 can count towards graduation requirements.

GEOL 203 Mineralogy and Crystallography 3

Principles of crystallography and crystal growth, the properties of minerals, mineral occurrence and association, and systematic mineralogy. Identification including x-ray diffraction.

GEOL 204 Properties of Rocks and Minerals 4

Principles of crystal symmetry, techniques of polarized light microscopy including mineral identification, and examination of thin sections. Petrophysics covering the acoustic, electrical, and magnetic properties of rocks and minerals. Prereq: GEOL 203.

GEOL 305 Structural Geology 3

The major classes of rock structures and their origins. Descriptive, kinematic, and dynamic examination of rock structures. Geologic stress, strain, and mechanisms of strain. Large-scale structural features of the crust. Orogenic belts. Prereq: GEOL 107 and mathematics through trigonometry.

GEOL 402 History of the Earth 3

An integrative study of the history of the earth and its inhabitants. Evolution and interaction of the lithosphere, biosphere, oceans, and atmosphere. An examination of the geologic record as a test for hypotheses about earth processes, including climatic change, paleoceanography, and tectonics. Prereq: GEOL 304.

GEOL 452 Plate Tectonics and Geophysics 3

A study of the fundamental theory of plate tectonics including historical development, kinematics, and the morphology and structure of the major types of plate boundaries. An examination of the structure and processes occurring within the earth's interior.

New Geology B.S. Undergraduate Program of Study

SUGGESTED CURRICULUM

CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content		3 ¹⁻⁴

MAJOR REQUIREMENTS

Within the Department

GEOL 107	General Geology	4 ¹
GEOL 203	Mineralogy and Crystallography	3 ¹
GEOL 204	Properties of Rocks and Minerals	4 ²
GEOL 301	Systematic and Evolutionary Paleontology	3 ^{2,3}
GEOL 303	Sedimentology	3 ³
GEOL 304	Stratigraphy	3 ³
GEOL 305	Structural Geology	3 ^{3,4}
GEOL 407	Igneous and Metamorphic Petrology	3 ⁴
GEOL 452	Plate Tectonics and Geophysics	3 ^{3,4}
GEOL 402	History of the Earth	3 ⁴

Six credits from the following:

GEOL 460	Field Geology in the Western States	6 ^{3,4}
or		3-6
GEOL 432	Recent Sedimentary Environments	3

Nine credits in additional Geology courses (400-level or above) 9^{3,4}

Within the College

Related Work

CHEM 103	General Chemistry	4 ²
CHEM 104	General Chemistry	4 ²
MATH 241	Analytical Geometry and Calculus A	4 ¹
MATH 242	Analytical Geometry and Calculus B	4 ¹
PHYS 201	General Physics	4 ³
PHYS 202	General Physics	4 ³

Eight credits from supporting sciences:

BISC 207, BISC 208, STAT 205 are strongly encouraged
(see Department Chairperson for a list of approved courses)

8²⁻⁴

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

33.4

Foreign Language: Completion of the intermediate-level course (107, 112, or 118) in a given language or satisfactory performance on a placement test in the language of the student's choice

0-12¹⁻⁴

Breadth Requirements

A total of eighteen credits from Groups A, B, C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

18¹⁻⁴

Group A. Understanding and appreciation of the creative arts and humanities.

Group B. The study of culture and institutions over time.

Group C. Empirically based study of human beings and their environment.

ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF

125

COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF SCIENCE
 MAJOR: GEOLOGY (GES)

7

SUGGESTED CURRICULUM	CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
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UNIVERSITY REQUIREMENTS

E 110	Critical Reading and Writing	3	X			
xx xxx	#Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X

MAJOR REQUIREMENTS

Within the Department

GEO 107	General Geology	4	X			
GEO 108	General Geology II	4	X			
GEO 203	Optical and Petrographic Mineralogy	4				3
GEO 204	Physical Mineralogy and Crystallography	4				4
GEO 301	Systematic and Evolutionary Paleontology	4			X	
GEO 303	Sedimentology	3			X	
GEO 304	Stratigraphy	3			X	
GEO 401	Structural Geology and Tectonics	3			X	X
GEO 407	Igneous and Metamorphic Petrology	4				X
GEO 433	Geowriting (this course is intended to fulfill the A & S requirement for a second writing course)	3				
GEO xxx	Six credits from the following courses:	6				
GEO 460	Field Geology in the Western States	3-6				
or						
GEO 432	Recent Sedimentary Environments	3				
GEO xxx	Geology courses (400-level)	5				
	Nine credits in additional Geology courses (400-level or above)					9

Within the College

Related Work

M 241	Analytic Geometry and Calculus A	4	X			
M 242	Analytic Geometry and Calculus B	4	X			
C 103	General Chemistry	4		X		
C 104	General Chemistry	4		X		
PS 201	General Physics	4			X	
PS 202	General Physics	4			X	
Eight credits from the following departments:		8		X	X	X
PS xxx	Physics course(s)					
C xxx	Chemistry course(s)					
B xxx	Biology course(s)					
M xxx	Mathematics course(s)					
ST xxx	Statistics course(s)					
CIS xxx	Computer science course(s)					
EN xxx	Engineering course(s)					

Eight credits from supporting sciences:
 BISC 207, BISC 208, STAT 205 are strongly encouraged
 (see Department + Chairperson for a list of approved courses)

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3000 words which are to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet. (see GEO 433 above)	3			X	or	X
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COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF SCIENCE
 MAJOR: GEOLOGY (GES)

8

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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Foreign Language: Completion of the intermediate-level course in a given language (112, 107 or 118) or satisfactory performance on a placement test in the language of the student's choice.

0-12

X

X

Breadth Requirements*

~~Eighteen~~ ^{six} ~~thirty~~ credits are required with a minimum of ~~nine~~ ^{six} credits in each of the following groups:

18
~~30~~

X

X

X

X

Group A. Understanding and appreciation of the creative arts and humanities. At least two departments must be represented.

Group B. The study of culture and institutions over time. At least two departments must be represented.

Group C. Empirically based study of human beings and their environment. At least two departments must be represented.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

X

X

X

X

CREDITS TO TOTAL A MINIMUM OF

125

#This requirement may be fulfilled thru a course taken to complete major requirements, group requirements, breadth or elective requirements.

*A course may be applied both towards the major requirement and a breadth requirement, but credits are counted only once towards the total credits for graduation.

New Geology B.A. Undergraduate Program of Study

SUGGESTED CURRICULUM

CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3 ^{3,4}
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Foreign Language: Completion of the intermediate-level course (107, 112, or 118) in a given language or satisfactory performance on a placement test in the language of the student's choice	0-12 ¹⁻⁴
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Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytical Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements

Group A. Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	12 ¹⁻⁴
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Group B. The study of culture and institutions over time Twelve credits representing at least two areas.	12 ¹⁻⁴
Group C. Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	12 ¹⁻⁴
Group D. The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	13 ¹⁻⁴

MAJOR REQUIREMENTS

Within the Department

GEOL 107 General Geology	4 ¹
GEOL 203 Mineralogy and Crystallography	3 ¹
GEOL 204 Properties of Rocks and Minerals	4 ²
GEOL 301 Systematic and Evolutionary Paleontology	3 ^{2,3}
GEOL 303 Sedimentology	3 ³
GEOL 304 Stratigraphy	3 ³
GEOL 305 Structural Geology	3 ^{3,4}
GEOL 407 Igneous and Metamorphic Petrology	3 ⁴
GEOL 452 Plate Tectonics and Geophysics	3 ^{3,4}
GEOL 402 History of the Earth	3 ⁴

Three credits from the following:	3 ^{3,4}
GEOL 460 Field Geology in the Western States	3-6
or	
GEOL 432 Recent Sedimentary Environments	3

Within the College

Chemistry courses (CHEM 103-104)	8 ²
Physics courses (PHYS 201-202)	8 ³
Mathematics through college-level trigonometry	3-4 ¹

ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF	124
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COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF ARTS
 MAJOR: GEOLOGY (GEA)

11

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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UNIVERSITY REQUIREMENTS

E 110 Critical Reading and Writing	3	X			
XX xxx #Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X

BA - COLLEGE REQUIREMENTS

Skill Requirements

<u>Writing:</u> A writing course involving significant writing experience including two papers with a combined minimum of 3000 words which are to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3			X or X	
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<u>Foreign Language:</u> Completion of the intermediate-level course in a given language (112, 107 or 118) or satisfactory performance on a placement test in the language of the student's choice.	0-12	X	X	X	X
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Mathematics:

M 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3	X			
or					
M 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3				
or					
One of the following:					
M 221 Calculus I	3				
M 241 Analytic Geometry and Calculus A	4				
or					
Successful performance on the college proficiency examination.					

Breadth Requirements*

<u>Group A.</u> Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two departments.	12	X	X	X	X
<u>Group B.</u> The study of culture and institutions over time. Twelve credits representing at least two departments.	12	X	X	X	X
<u>Group C.</u> Empirically based study of human beings and their environment. Twelve credits representing at least two departments.	12	X	X	X	X
<u>Group D.</u> The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two departments including a minimum of one course with an associated laboratory.	13	X	X	X	X

12

MAJOR REQUIREMENTS

GEO 107	General Geology I	4	X	
GEO 108	General Geology II	4	X	
GEO 203	Optical and Petrographic Mineralogy			3
GEO 204	Physical Mineralogy and Crystallography			4
GEO 301	Systematic and Evolutionary Paleontology	4	3	X
GEO 303	Sedimentology	3		X
GEO 304	Stratigraphy	3		
GEO 404	Structural Geology and Tectonics	4	3	GEO 452 Plate Tectonics and Geophysics
GEO 433	Geomorphology (This course is intended to fulfill the A & S requirement for a second writing course)	3		GEO 407 Igneous and Metamorphic Petrology
				GEO 402 History and Evolution of the Earth
G 433	Recent Sedimentary Environments	3		GEO xxx Three credits from the following courses

~~One of the following three courses:~~

E	301	Problems in Composition
E	302	Advanced Composition
E	410	Technical Writing

C	xxx	Chemistry courses (C 103-104)	8		X	
PS	xxx	Physics courses (PS 201-202)	8			X
M	xxx	Mathematics courses through college level trigonometry	3-4	X		

Electives

X X X X

124

*A course may be applied both towards the major requirement and a breadth requirement, but credits are counted only once towards the total credits for graduation.

New Geology B.A. - Concentration in Paleobiology

SUGGESTED CURRICULUM

CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3 ^{3,4}
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Foreign Language: Completion of the intermediate-level course (107, 112, or 118) in a given language or satisfactory performance on a placement test in the language of the student's choice	0-12 ¹⁻⁴
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Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytical Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements

Group A. Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	12 ¹⁻⁴
--	-------------------

Group B. The study of culture and institutions over time Twelve credits representing at least two areas. 12¹⁻⁴

Group C. Empirically based study of human beings and their environment. Twelve credits representing at least two areas. 12¹⁻⁴

Group D. The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory. 13¹⁻⁴

MAJOR REQUIREMENTS

Within the Department

GEOL 107	General Geology	4 ¹
GEOL 203	Mineralogy and Crystallography	3 ²
GEOL 204	Properties of Rocks and Minerals	4 ²
GEOL 301	Systematic and Evolutionary Paleontology	3 ³
GEOL 303	Sedimentology	3 ³
GEOL 304	Stratigraphy	3 ³
GEOL 305	Structural Geology	3 ⁴
GEOL 402	History of the Earth	3 ⁴
GEOL 466	Independent Study	3 ⁴
Three credits from the following:		3 ^{3,4}
GEOL 460	Field Geology in the Western States	3-6
or		
GEOL 432	Recent Sedimentary Environments	3

Within the College

MATH 115	Pre-Calculus	3 ¹
STAT 201	Introduction to Statistics I	3 ⁴
STAT 202	Introduction to Statistics II	3 ⁴
CHEM 103	General Chemistry	4 ²
CHEM 104	General Chemistry	4 ²
BISC 207	Introductory Biology I	4 ²
BISC 208	Introductory Biology II	4 ²
BISC 324	Invertebrate Zoology	4 ³
BISC 302	General Ecology	3 ⁴
BISC 495	Evolution	3 ⁴
BISC 442	Vertebrate Morphology (recommended, not required)	3 ⁴

ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF

124

COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF ARTS
 MAJOR: GEOLOGY
 CONCENTRATION: PALEOBIOLOGY (PAL)

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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UNIVERSITY REQUIREMENTS

E 110 Critical Reading and Writing	3	X			
XX XXX #Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X

BA - COLLEGE REQUIREMENTS

Skill Requirements

<u>Writing:</u> A writing course involving significant writing experience including two papers with a combined minimum of 3000 words which are to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3			X	or	X
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<u>Foreign Language:</u> Completion of the intermediate-level course in a given language (112, 107 or 118) or satisfactory performance on a placement test in the language of the student's choice.	0-12	X(F,S)	X(F,S)			
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Mathematics:

M 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3	X				
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or

M 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3					
--	---	--	--	--	--	--

or

One of the following:

M 221 Calculus I	3					
M 241 Analytic Geometry and Calculus A	4					

or

Successful performance on the college proficiency examination.

Breadth Requirements*

<u>Group A.</u> Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two departments.	12	X(F,S)		X(F,S)	X(F,S)
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<u>Group B.</u> The study of culture and institutions over time. Twelve credits representing at least two departments.	12	X(F,S)		X(F,S)	X(F,S)
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<u>Group C.</u> Empirically based study of human beings and their environment. Twelve credits representing at least two departments.	12	X(F,S)		X(F,S)	X(F,S)
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<u>Group D.</u> The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two departments including a minimum of one course with an associated laboratory.	13	X	X	X	X
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COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF ARTS
 MAJOR: GEOLOGY
 CONCENTRATION: PALEOBIOLOGY (PAL)

SUGGESTED CURRICULUM

CREDITS TYPICAL TYPICAL TYPICAL TYPICAL
 FRESHMAN SOPHOMORE JUNIOR SENIOR
 COMPLETES COMPLETES COMPLETES COMPLETES

MAJOR REQUIREMENTS

Within the Department

GEO 107	General Geology I	4	X(F)			
GEO 108	General Geology II	4	X(S)			
GEO 203	Optical and Petrographic Mineralogy mineralogy and Crystallography	3			3	
GEO 204	Physical Mineralogy and Crystallography Properties of Rocks and Minerals	4				
GEO 301	Systematic and Evolutionary Paleontology	3				
GEO 303	Sedimentology	3			X(F)	
GEO 304	Stratigraphy	3			X(F)	
GEO 460	Field Geology in the Western States	3			X(S)	
GEO 401	Structural Geology and Tectonics	3			X	
GEO 433	Geocaching	3				X(F)
GEO 466	Independent Study	3				X(S)
GEO 402	History of the Earth	3				X(S)

Within the College

M 115	Pre-Calculus	3	X(S)			
ST 201	Introduction to Statistics I	3				X(F)
ST 202	Introduction to Statistics II	3				X(S)
C 103	General Chemistry	4		X(F)		
C 104	General Chemistry	4		X(S)		
PS 201	General Physics	4				X(F)
PS 202	General Physics	4				X(S)
B 207	Introductory Biology I	4		X(F)		
B 208	Introductory Biology II	4		X(S)		
B 324	Invertebrate Zoology	4				X(S)
B 302	General Ecology	3				X(F)
B 495	Evolution	3				X(S)
B 442	Vertebrate Morphology (recommended)	3				

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

X X X X

CREDITS TO TOTAL A MINIMUM OF

124

#This requirement may be fulfilled thru a course taken to complete major requirements, group requirements, breadth or elective requirements.

*A course may be applied both towards the major requirement and a breadth requirement, but credits are counted only once towards the total credits for graduation.

@This course fulfills the Arts and Science writing requirement.

Proposed B.A. - Earth Science Education

SUGGESTED CURRICULUM

CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3 ^{3,4}
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Foreign Language: Completion of the intermediate-level course (107, 112, or 118) in a given language or satisfactory performance on a placement test in the language of the student's choice	0-12 ¹⁻⁴
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Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
--	---

or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytical Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements

Group A. Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	12 ¹⁻⁴
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Group B. The study of culture and institutions over time Twelve credits representing at least two areas.	12 ¹⁻⁴
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Group C. Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

12¹⁻⁴

Group D. The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

13¹⁻⁴

MAJOR REQUIREMENTS

Within the College

GEOL 105	General Geology I	4 ¹
or		
GEOL 107	General Geology	4 ¹
GEOL 106	General Geology II	4 ¹
GEOL 203	Mineralogy and Crystallography	3 ²
GEOL 303	Sedimentology	3 ³
Three credits from the following:		
GEOL 460	Field Geology in the Western States	3-6 ^{3,4}
or		
GEOL 432	Recent Sedimentary Environments	3 ^{3,4}
GEOG 101	Physical Geography	3 ¹⁻⁴
GEOG 220	Meteorology	3 ¹⁻⁴
GEOG 235	Conservation of Natural Resources	3 ¹⁻⁴
GEOG 343	Climatic Geomorphology	3 ¹⁻⁴
or		
GEOG 255	Applied Climatology	3 ¹⁻⁴
PHYS 133	Introduction to Astronomy	4 ¹⁻⁴
PHYS 201	General Physics	4 ¹⁻²
PHYS 202	General Physics	4 ¹⁻²
CHEM 103	General Chemistry	4 ¹⁻²
BISC 195	Biological Evolution	4 ¹⁻⁴
MATH 221	Calculus I	3 ¹⁻²

External to the College

MAST 200	Concepts in Oceanography	3 ¹⁻⁴
EDST 201	Education and Society	3 ¹⁻⁴
EDST 304	Psychological Foundations of Education	3 ¹⁻⁴
EDST 305	Educational Psychology	3 ¹⁻⁴
EDST 420	Reading in Content Areas	1 ¹⁻⁴
SCEN 491	Teaching Science in Secondary Schools	4 ⁴
EDDV 400	Student Teaching	9 ⁴
CREDITS TO TOTAL A MINIMUM OF		124

COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: INTERDISCIPLINARY (GEOLOGY AND GEOGRAPHY)
 DEGREE: BACHELOR OF ARTS
 MAJOR: EARTH SCIENCE EDUCATION (XES)

SUGGESTED CURRICULUM	CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
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UNIVERSITY REQUIREMENTS

E 110 Critical Reading and Writing	3	X			
XX XXX #Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X

BA - COLLEGE REQUIREMENTS

Skill Requirements

<u>Writing:</u> A writing course involving significant writing experience including two papers with a combined minimum of 3000 words which are to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	3			X or X	
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<u>Foreign Language:</u> Completion of the intermediate-level course in a given language (112, 107 or 118) or satisfactory performance on a placement test in the language of the student's choice.	0-12	X	X	X	X
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Mathematics: (See Note 1)

M 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3	X			
or					
M 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3				
or					
One of the following:					
M 221 Calculus I	3				
M 241 Analytic Geometry and Calculus A	4				
or					
Successful performance on the college proficiency examination.					

Breadth Requirements*

<u>Group A.</u> Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two departments.	12	X	X	X	X
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<u>Group B.</u> The study of culture and institutions over time. Twelve credits representing at least two departments.	12	X	X	X	X
--	----	---	---	---	---

<u>Group C.</u> Empirically based study of human beings and their environment. Twelve credits representing at least two departments.	12	X	X	X	X
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COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: INTERDISCIPLINARY (GEOLOGY AND GEOGRAPHY)
 DEGREE: BACHELOR OF ARTS
 MAJOR: EARTH SCIENCE EDUCATION (XES)

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
<u>Group D.</u> The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two departments including a minimum of one course with an associated laboratory. (This requirement is satisfied by the completion of the interdisciplinary major courses.)	13	X	X		

MAJOR REQUIREMENTS

Within the Department

GEO 105 General Geology I	4	X			
GEO 106 General Geology II	4	X			
or					
GEO 107 General Geology I	4				
GEO 108 General Geology II	4				
GEO 203 Mineralogy and Crystallography	3				
GEO 304 Physical Mineralogy and Crystallography	4				
GEO 302 Stratigraphic and Sedimentary Geology	4				
GEO 303 Sedimentology	3				
GEO 432 Recent Sedimentary Environments	3				
Three credits from the following: GEO 460 Field Geology in the Western States 3-6 or GEO 432 Recent Sedimentary Environment 3					
G 101 Physical Geography	3	X	X	X	X
G 220 Meteorology	3	X	X	X	X
G 235 Conservation of Natural Resources	3	X	X	X	X
G 343 Climatic Geomorphology	3	X	X	X	X
or					
G 255 Applied Climatology	3				

Within the College

PS 133 Introduction to Astronomy	4	X	X		
PS 201 General Physics	4	X	X		
PS 202 General Physics	4	X	X		
C 103 General Chemistry	4	X	X		
B 195 Biological Evolution	3	X	X	X	X
M 221 Calculus I	3	X	X		

External to the College

CMS 200 Introduction to Marine Studies	3	X	X	X	X
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Professional Studies

EDS 201 Education and Society	3	X	X	X	X
EDS 301 Psychological Foundations of Education	3	X	X	X	X
EDS 302 Educational Psychology	3	X	X	X	X
SC 491 Science Materials and Approaches	3				X
EDST 420 Reading in Content Areas	1	X	X	X	X
EDD 3xx Upper-level Reading Instruction	1				
EDD 400 Student Teaching	9				X

CREDITS TO TOTAL A MINIMUM OF 124

#This requirement may be fulfilled thru a course taken to complete major requirements, group requirements, breadth or elective requirements.

*A course may be applied both towards the major requirement and a breadth requirement, but credits are counted only once towards the total credits for graduation.

Note 1: M 221 satisfies the Mathematics Skills Requirement.

New Geology Minor

The minor in geology consists of at least 18 credit hours in geology. The requirements are as follows:

1. GEOL 107 General Geology 4 cr.
2. At least two of the following:

GEOL 203 Mineralogy and Crystallography	3 cr.
GEOL 204 Properties of Rocks and Minerals	4 cr.
GEOL 301 Systematic and Evolutionary Paleontology	3 cr.
GEOL 303 Sedimentology	3 cr.
GEOL 304 Stratigraphy	3 cr.
GEOL 305 Structural Geology	3 cr.
3. GEOL 402 History of the Earth 3 cr.
4. Any 400-level or above Geology course or courses may be used to obtain the remaining credits needed to reach a total of 18.

The student interested in a minor in geology must see the Department Chairperson (or his designee) and be assigned a faculty advisor.

The student must obtain a C or better in all required Geology courses.

GEOLOGY MINOR

24

The minor in geology consists of at least 18 credit hours in geology.
The requirements are as follows:

1. General Geology - GEO 107 ⁴~~108~~ (4 credits)
2. At least two of the following:

	Mineralogy and Crystallography	3
GEO 203	Optical and Petrographic Mineralogy	4 cr. hours
	Properties of Rocks and Minerals	
GEO 204	Physical Mineralogy & Crystallography	4 cr. hours
GEO 301	Systematic & Evolutionary Paleontology	3 cr. hours
GEO 303	Sedimentology	3 cr. hours
GEO 304	Stratigraphy	3 cr. hours
GEO 401	Structure & Tectonics of the Earth	3 cr. hours
305	Structural Geology	
- 4.X. Any 400-level ^{or above Geology} course or courses may be used to obtain the remaining credits needed to reach a total of 18.
3. GEOL 402 History of the Earth 3 cr. hours

The student interested in a minor in geology must see the Department Chairperson (or his designee) and be assigned a faculty advisor.

The student must obtain a C or better in all required courses.



University of Delaware

Attachment 7

COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF GEOLOGY
101 PENNY HALL
NEWARK, DELAWARE 19716

(302) 451-2569
FAX: (302) 451-8000

January 15, 1991

TO: Cindy Waksmonski
College of Arts and Science

FROM: Bill P. Glass, Chairperson
Department of Geology

SUBJECT: Curriculum Revision, BS - Geophysics, Department of Geology

Attached is our Department of Geology curriculum revision for the Bachelor of Science in Geophysics program of study. These revisions were approved by the Faculty of the Department of Geology in various meetings in the spring and fall of 1990. The Departments of Physics and Mechanical Engineering have also approved the revision in terms of the courses that they will open for our majors.

It is our intent to initiate all elements of the program as soon as approved by the appropriate committees. Faculty work loads will be adjusted to accomodate our new program. No new faculty are needed for this curriculum revision.

If you have any questions concerning this revision feel free to contact myself or Dr. John Madsen, one of our geophysics faculty.

Revision of Program of Study for B.S. in Geophysics

In 1976 the Geology Department, in cooperation with the Physics Department, established a B.S. degree program in geophysics. Under the guidance of a single professor with a research speciality in geophysics, Dr. Robert Sheridan, the program flourished reaching a maximum of 24 undergraduate majors in 1982. With the fall of the price of oil in the early 1980's and the concomitant decline of the domestic petroleum industry, the number of petroleum-related jobs declined and the number of undergraduate majors in the geological sciences dropped nationwide. At Delaware the number of undergraduate geophysics majors has dropped to 4. However, there has been a recent dramatic shift in the job market and a recent survey of our graduates in geology and geophysics showed that most now work for private companies or state and federal agencies concerned with environmental problems. As the word spreads that there are jobs for geologists and geophysicists in environmental fields, we expect to see an increase in undergraduate enrollments in the geological sciences.

Within the past five years, Dr. Sheridan has departed and the Department of Geology has hired two new faculty, Drs. Sue McGeary and John Madsen, with specialities in geophysics. In addition to strengthening the research and teaching programs at the graduate level, the Department wishes to revitalize the undergraduate geophysics major by adding new courses in geophysics and by modifying the supporting courses in geology, physics, and other related sciences. Specifically, in order to improve the education of our undergraduate students majoring in geophysics we propose the following changes to the existing program of study.

- 1) The addition of two new courses in geophysics. These courses are GEOL 451 - Geophysical Field Methods and GEOL 452 - Plate Tectonics and Geophysics. In the proposed program geophysics majors will take 4 courses (12 credits) in geophysics. In the current program majors take only 2 geophysics classes (6 credits).
- 2) The incorporation of the changes in the B.S. program in geology to the geophysics program. Geophysics majors will be required to take the new GEOL 204 - Properties of Rocks and Minerals and GEOL 402 - History of the Earth geology courses. The total number of credits actually required in geology courses will decrease by 4 to 26 credits. In the proposed program geophysics majors will have a total of 38 credits in the Geology Department (26 credits in geology courses, 12 credits in geophysics). In the current program geophysics majors have a total of 36 credits in the department (30 credits in geology, 6 credits in geophysics).
- 3) Changes in the courses required in Physics. In response to changes in the course offerings in the Physics Department the proposed program will require the new PHYS 645 - Electronics for Scientists and PHYS 646 - Instrumentation for Scientists courses. Geophysics majors will also have the option to take either PHYS 313 - Physical Optics, PHYS 603 - Electricity and Magnetism, PHYS 616 - Kinetic Theory and Thermodynamics,

or PHYS - 631 Acoustics. In the proposed program of study there will be a 9 credit reduction in the number of credits required in physics. In the proposed program geophysics majors will take a total of 20-21 credits in the Physics Department. In the current program majors have a total of 29-30 credits in physics. The 9 credit reduction in physics allows for the addition of the 6 credits for the new geophysics courses and 3 credits for a course in mechanics.

5) Add a course in mechanics to the major. It is important for geophysics majors to acquire knowledge about the mechanics of solid materials (e.g., statics of rigid and elastic bodies, stress, and strain). In the proposed program a mechanics course MEEG 213 - Principles of Mechanics I offered by the Department of Mechanical Engineering in the College of Engineering would be required.

6) Reduce the number of credits required in the sciences. In comparison to other B.S. programs of study the geophysics major is high (current program requires 88-89 credits) in the number of science credits required. For example other B.S. programs require: Chemistry 65-71 science credits, Biochemistry 80-89, Geology 79, Physics 73, Physics - Astronomy 73-76, Physics - Chemical 72, Physics - Applied 70, and Biology 79-81. In order to be closer in line to other B.S. programs we propose to eliminate the second chemistry course (CHEM 104 General Chemistry) required in the supporting sciences. The proposed program would require 83-84 credits in the sciences.

Proposed Geophysics B.S. Undergraduate Program of Study

SUGGESTED CURRICULUM

CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content		3 ¹⁻⁴

MAJOR REQUIREMENTS

Within the Department

GEOL 107	General Geology	4 ¹
GEOL 203	Mineralogy and Crystallography	3 ²
GEOL 204	Properties of Rocks and Minerals	4 ²
GEOL 303	Sedimentology	3 ³
GEOL 305	Structural Geology	3 ³⁻⁴
GEOL 402	History of the Earth	3 ⁴
GEOL 451	Geophysical Field Methods	3 ^{3,4}
GEOL 452	Plate Tectonics and Geophysics	3 ^{3,4}
GEOL 453	Elementary Geophysics I	3 ^{3,4}
GEOL 454	Elementary Geophysics II	3 ^{3,4}
GEOL 460	Field Geology in the Western States	3 ^{3,4}

One of the following three courses

GEOL 301	Systematic and Evolutionary Paleontology	3 ³
GEOL 304	Stratigraphy	3 ³
GEOL 407	Igneous and Metamorphic Petrology	3 ³

Within the College

Related Work

PHYS 207	General Physics	4 ¹
PHYS 208	General Physics	4 ¹
PHYS 209	General Physics	3 ²
PHYS 645	Electronics for Scientists	3 ^{3,4}
PHYS 646	Instrumentation for Scientists	3 ^{3,4}

One of the following four courses

PHYS 313	Physical Optics	4 ^{3,4}
*PHYS 603	Electricity and Magnetism	3 ^{3,4}
PHYS 616	Kinetic Theory and Thermodynamics	3 ^{3,4}
PHYS 631	Acoustics	3 ^{3,4}

*(If PHYS 603 is selected; PHYS 604 is strongly encouraged as an elective course)

CHEM 103	General Chemistry	4 ²
CISC 106	General Computer Science for Engineers	3 ^{1,2}
MATH 241	Analytical Geometry and Calculus A	4 ¹
MATH 242	Analytical Geometry and Calculus B	4 ¹
MATH 243	Analytical Geometry and Calculus C	4 ²
MATH 302	Ordinary Differential Equations	3 ²

Skill Requirements

Writing: A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet. 3^{3,4}

Breadth Requirements

Six credits from each of the following groups 18¹⁻⁴

Group A. Understanding and appreciation of the creative arts and humanities.

Group B. The study of culture and institutions over time.

Group C. Empirically based study of human beings and their environment.

External to the College

MEEG 213 Principles of Mechanics I 3^{3,4}

ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 125

NEW COURSES IN GEOPHYSICS
TO BE SUBMITTED FOR APPROVAL - SPRING CYCLE

GEOL 451 Geophysical Field Methods 3

Applied course that investigates various methods of geophysical data collection in the field. Data sets to be gathered, reduced, and analyzed include seismic reflection and refraction, gravity, magnetism, and resistivity. Prereq. or Coreq.: GEOL 453, GEOL 454.

GEOL 452 Plate Tectonics and Geophysics 3

A study of the fundamental theory of plate tectonics including historical development, kinematics, and the morphology and structure of the major types of plate boundaries. An examination of the structure and processes occurring within the earth's interior.

COLLEGE: ARTS AND SCIENCE
DEPARTMENT: GEOLOGY
DEGREE: BACHELOR OF SCIENCE
MAJOR: GEOPHYSICS (GPS)

PAGE 1

SUGGESTED CURRICULUM

CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
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UNIVERSITY REQUIREMENTS

E	110	Critical Reading and Writing	3	X				
xx	xxx	Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender related content.	3	X	X	X	X	

MAJOR REQUIREMENTS

Within the Department

GEO	107	General Geology I	4	X				
GEO	108	General Geology II	4	X				
GEO	204	Physical Mineralogy and Crystallography	4					
GEO	303	Sedimentology	3					
GEO	304	Stratigraphy	3					
GEO	404	Structural Geology and Tectonics	3					
GEO	433	Geowriting (This course is intended to fulfill the A-S requirement for a second writing course)	3					
GEO	453	Elementary Geophysics I	3					
GEO	454	Elementary Geophysics II	3					
GEO	xxx	Five credits from the following courses:	5					
GEO	460	Field Geology in the Western States	3-6					
GEO	432	Recent Sedimentary Environments	3					
PS	207	General Physics	4					
PS	208	General Physics	4					
PS	209	General Physics	3					
PS	405	Electrical Measurements	3					
PS	406	Electrical Measurements	3					
PS	419	Analytic Mechanics	3					
PS	420	Analytic Mechanics	3					
ONE OF THE FOLLOWING FOUR COURSES								
Two of the following six courses:								
PS	313	Physical Optics	4					
PS	616	Kinetic Theory and Thermodynamics	3					
PS	621	Introduction to Modern Physics	3					
PS	622	Introduction to Modern Physics	3					
PS	6431	Acoustics	3					
MEG	304	Fluid Mechanics	3					
PHYS	603	ELECTRICITY AND MAGNETISM						

Within the College

Related Work

CIS	1056	General Computer Science FOR ENGINEERS	3				X	
M	241	Analytic Geometry and Calculus A	4	X				
M	242	Analytic Geometry and Calculus B	4	X				
M	243	Analytic Geometry and Calculus C	4			X		
M	302	Ordinary Differential Equations	3			X		
C	103	General Chemistry	4			X		
C	104	General Chemistry	4			X		

EXTERNAL TO THE COLLEGE

MEEG	213	PRINCIPLES OF MECHANICS I	3					
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COLLEGE: ARTS AND SCIENCE
 DEPARTMENT: GEOLOGY
 DEGREE: BACHELOR OF SCIENCE
 MAJOR: GEOPHYSICS (GPS)

PAGE 2

<u>SUGGESTED CURRICULUM</u>	<u>CREDITS</u>	<u>TYPICAL FRESHMAN COMPLETES</u>	<u>TYPICAL SOPHOMORE COMPLETES</u>	<u>TYPICAL JUNIOR COMPLETES</u>	<u>TYPICAL SENIOR COMPLETES</u>
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Skill Requirements

<u>Writing:</u> A writing course involving significant writing experience including two papers with a combined minimum of 3000 words which are to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See GEO 433 above)	3			X or X	
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Breadth Requirements*

A total of eighteen credits from Groups A, B, and C is required with six credits in each group. The six credits from each group could be from the same department.	18	X	X	X	X
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Group A. Understanding and appreciation of the creative arts and humanities.

Group B. The study of culture and institutions over time.

Group C. Empirically based study of human beings and their environment.

CREDITS TO TOTAL A MINIMUM OF

⁵
12

#This requirement may be fulfilled thru a course taken to complete major requirements, group requirements, breadth or elective requirements.

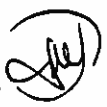
*A course may be applied both towards the major requirement and a breadth requirement, but credits are counted only once towards the total credits for graduation.

Memorandum



December 10, 1990

TO: Cindy Waksmonski
Arts and Science

FROM: Jessica Schiffman 
Program Coordinator
Women's Studies

RE: Women's Studies Minor Requirements

Sylvia Knight has just discovered that there is a discrepancy between our requirements and the information printed in the Undergraduate Programs and Policies Catalog. This error seems to have been on the books for at least the last 2 years. The catalog states (on page 137):

"A 2.0 average must be maintained in these courses."

Our policy--in accordance with the policy of the College of Arts and Science--is that a minimum grade of "C" is required in each course.

Thank you for your help in this matter.

JS:sk



WOMEN'S STUDIES

This program is designed to foster in students a knowledge of the rich heritage, challenges, and problems of women. In addition to being a unique field with its own philosophy, methodology, and materials, Women's Studies provides the impetus toward reexamining each of the traditional scholarly disciplines to identify and correct misinformation and unexamined assumptions about "women's place" in human history. In so doing, men's lives have also been looked at in new and more humanistic ways, thus enhancing an awareness of the interplay of gender, race, and class.

The Women's Studies program offers several introductory core courses, upper-division courses in a variety of disciplines, seminars, and colloquia. There is also an internship that gives students the chance to integrate what they have learned in the Women's Studies classroom with the practical competencies that can only be gained from actual experience in work settings. Both the courses and internship explain and expand exciting areas of scholarship and knowledge that have largely been excluded from the traditional disciplines.

The program offers both a minor and, through the Liberal Studies degree program, an individually designed major. For B.A.L.S.-Women's Studies major requirements,

students should see the B.A.L.S. requirements and make an appointment with the Director of Women's Studies to discuss the Women's Studies content within these requirements. Both the major and the minor can benefit students by helping to clarify personal and career goals; preparing them for specific careers that require expertise in women's roles and needs; and providing valuable intellectual training.

REQUIREMENTS FOR A MINOR IN WOMEN'S STUDIES

A minimum of 18 credit hours is required, which must include the following: WS 201, 470, at least one course satisfying the A&S General Education Group A or B requirement, no more than two experimental courses (x67), and an additional 6 credits in WS courses at or above the 300 level. ~~A 2.0 average must be maintained in these courses.~~

Students may enter the program at any time. No minimum grade-point average is required to begin, but students must not be on probation at the time. To join the program, students need the permission of the Director, who must also approve any waiver or substitution of requirements.

A minimum grade of "C" is required in each course



University of Delaware

Attachment 9

DEPARTMENT OF GEOGRAPHY
NEWARK, DELAWARE 19716

(302) 451-2294/2295

January 25, 1991

MEMORANDUM TO: Professor Jeffrey L. Davidson, Chair
Educational Affairs Committee

Professor Helen Gouldner, Dean
College of Arts and Science

FROM: Cort J. Willmott, Chair
Department of Geography

SUBJECT: Proposal for a new BS Program in Environmental Science

Enclosed please find our revised proposal for a new BS program in Environmental Science. It is based on our original proposal but incorporates many of the useful suggestions that we have received from colleagues in a variety of units across the campus. The program will be administered by the Geography Department, with significant cooperation from the Department of Geology and the School of Life and Health Sciences. Please consider this new BS program for inclusion as a new major in the College of Arts and Science.

Per your suggestion of February 26, 1990, Chemistry is now required (two courses instead of the one you suggested). The program also has been reorganized so that a student may choose one of three areas of concentration (in addition to the core curriculum). These are: the Atmospheric Environment, the Biological Environment and Geology. An undergraduate advisor in Geography (currently Professor Brian Hanson) will advise atmospherically oriented students, an advisor in Geology (currently Professor John Wehmiller) will advise Geology oriented students and a biologist (currently Professor Howard Cornell) will advise biologically oriented students. Please also note that the program has wide support, especially from such allied programs as Geology, Life and Health Sciences (especially the Ecology Program), the Applied Ocean Science Program, Chemistry and Biochemistry, Physics, Entomology and Applied Ecology, and Civil Engineering (see the enclosed letters).

Thank you and the Committee for your thoughtful consideration of our proposal. Please do not hesitate to contact me at x8998 if questions arise or I can be of any assistance.

Rationale for the Proposed Program

Environmental awareness (e.g., of global warming, stratospheric ozone depletion and habitat degradation) among the public, educators, and government has been heightened recently by regular media attention to environmental change. Many environmental problems, nevertheless, can be addressed only if we understand the interactions among such major planetary systems as the atmosphere, the

biosphere, the lithosphere and human activities. Many of our traditional scientific disciplines, it seems, tend to focus on an individual planetary system, not the interactions among the systems. Important environmental processes and problems that involve interactions among planetary systems, as a consequence, are not well understood, and many students obtain only a partial perspective on the environment. It is our intent to establish and administer a broadly-based but rigorous Environmental Science program that will complement the University's other environmentally-oriented bachelor's programs.

This proposed program will complement our broad-based B.A. Program in Geography by providing a more vertical, science-based curriculum for those of our environmentally-oriented students who wish to pursue a career in one of several facets of environmental science. It also can provide excellent undergraduate training for students wishing to undertake more specialized graduate studies in such environmental areas as climatology, meteorology, ecology, geography, hydrology and selected areas within the earth sciences. Students might also pursue advanced studies in the agricultural or marine sciences. Comparable programs at the Universities of California (Los Angeles), Nebraska, and Virginia, for example, have been in existence for some time and highly successful.

Structure of the Program

Courses required of students in the proposed Environmental Science Program are arranged into four categories: 1) core curriculum, 2) a concentration (on the atmospheric environment, the biological environment or in Geology), 3) environmental electives and 4) basic science and mathematics. Our core curriculum consists of a matrix of Geography, Biology and Geology courses that we believe encompass the main tenets of Environmental Science. While these courses are predominantly substantive (scientific), several of them contain significant methodological or philosophical components. As an environmental scientist ought to have depth in addition to breadth, Environmental Science BS students must develop a concentration within atmospheric, biological, or geologic aspects of the environment. Environmental Science students also are required to take electives from a broader list that includes Geography, Geology, Biology, Chemistry, Physics, Oceanography, Civil Engineering and Soil Science courses. A nontrivial exposure to mathematics and chemistry, as well as to computer methods and statistics, also is essential to modern Environmental Science.

Our proposed program has been designed to flexibly accommodate students who will choose the Environmental Science major during their freshman or sophomore year. Required courses, as a result, can be completed in the sophomore, junior and senior years by students who concentrate on College group requirements during their freshman and early sophomore years. It also should be noted that most Environmental Science BS students will be able to complete a minor in their area of concentration as a byproduct of completing the Environmental Science degree.

Estimated Enrollments

The Environmental Science major is expected to appeal to a modest-sized group of undergraduates whose interests in environmental science are sufficiently strong to undertake a rigorous science-based program. We anticipate growth to a level of about 25 majors over the next five years.

Cost

As all courses already are on the books and a modest number of students is expected, no new cost to the University is anticipated at this time.

cc: Billy Glass, Chair, Dept. of Geology
James B. Mehl, Chair, Dept. of Physics
Jean H. Futrell, Chair, Dept. of Chemistry and Biochemistry
Milton H. Stetson, Director, School of Life and Health Sciences
Roland R. Roth, Chair, Dept. of Entomology and Applied Ecology
Ib Arne Svendsen, Chair, Dept. of Civil Engineering
Vytautas Klemas, Director, Applied Ocean Science Program
John F. Wehmiller, Dept. of Geology
Robert M. Eisenberg, School of Life and Health Sciences
Howard V. Cornell, School of Life and Health Sciences
David W. Smith, School of Life and Health Sciences

24 January 1991

Proposed Program

DEGREE: BACHELOR OF SCIENCE
MAJOR: ENVIRONMENTAL SCIENCE

SUGGESTED CURRICULUM
UNIVERSITY REQUIREMENTS

CREDITS*

ENGL 110 Critical Reading and Writing
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.

3¹
3¹⁻⁴

COLLEGE REQUIREMENTS

Within the allied departments

GEOL 107 General Geology
BISC 207, BISC 208 Introductory Biology I and II
GEOG 220 Meteorology
GEOG 250 Computer Methods in Geography
BISC 302 General Ecology
BISC 312 General Ecology Lab
GEOG 352 Physical Climatology
GEOL 414 Quaternary Geology and Geochronology
BISC/GEOG/GEOL 450 Proseminar in Environmental Science

4^{1,2}
8^{1,2}
3^{1,2}
4^{2,3}
3^{2,3}
1^{2,3}
4^{3,4}
3^{3,4}
3^{3,4}

In addition, two courses from within one of the following three areas of
concentration:

Atmospheric Environment

GEOG 420 Advanced Meteorology
GEOG 451 Microclimatology
GEOG 453 Synoptic Climatology
GEOG 455 Water Budget in Environmental Analysis
GEOG 657 Climate Dynamics

3^{3,4}
3^{3,4}
3^{3,4}
3^{3,4}
3^{3,4}

Biological Environment

BISC 321 Environmental Biology
BISC 494 Experimental Ecology
BISC 495 Evolution
BISC 637 Population Ecology
BISC 641 Microbial Ecology

3^{3,4}
3^{3,4}
3^{3,4}
3^{3,4}
3^{3,4}

Geology

GEOL 204 Physical Mineralogy and Crystallography
GEOL 303 Sedimentology
GEOL 304 Stratigraphy
GEOL 305 Structural Geology

4²⁻⁴
3^{3,4}
3^{3,4}
3^{3,4}

SUGGESTED CURRICULUM (continued)

CREDITS*

Three additional courses taken from the following list or from the courses listed under the three areas of concentration above. At least one course must be outside the chosen area of concentration. For students following the Geology track, one course must be GEOL 402 and another course must be a 400-level geology course.

BISC 324 Invertebrate Zoology	3,4
CHEM 213 Elementary Organic Chemistry	3 ² -4
ENT 201 CIEG 331 Introduction to Environmental Engineering	3,4
GEOG 152 Climate and Life	4 ¹ -4
GEOG 206 Topography and Soils	3 ¹ -4
GEOG 230 Humans and the Earth Ecosystem	3 ¹ -4
GEOG 235 Conservation of Natural Resources	3 ¹ -4
GEOG 236 Conservation: Global Issues	3 ¹ -4
GEOG 255 Applied Climatology	3 ¹ -4
GEOG 257 Paleoclimatology	3 ¹ -4
GEOG 272 Map and Air Photo Interpretation	3 ² -4
GEOG 320 Water & Society	3 ² -4
GEOG 330 Biogeography	3 ² -4
GEOG 342 Bioclimatology	3 ² -4
GEOG 343 Climatic Geomorphology	3 ² -4
GEOG 351 Urban Climatology	3 ² -4
GEOG 430 Conservation Forest Ecosystems	3 ² -4
GEOG 681 Remote Sensing of Environment	3 ³ ,4
GEOL 402 History of the Earth (to be proposed by Geology)	3 ³ ,4
GEOL 403 Regional Geology of North America	3 ³ ,4
GEOL 411 Quantitative Geomorphology	3 ³ ,4
GEOL 412 Geological Approaches to Archaeology and History	3 ³ ,4
GEOL 421 Environmental and Applied Geology	3 ³ ,4
GEOL 428 Hydrogeology	3 ³ ,4
GEOL 431 Marine Geology	3 ³ ,4
GEOL 432 Recent Sedimentary Environments	3 ³ ,4
GEOL 434 The Geology of Coasts	3 ³ ,4
GEOL 446 General Geochemistry	3 ³ ,4
GEOL 460 Field Geology in the Western States	3-6 ³ ,4
MAST 200 Concepts in Oceanography	3 ¹ -4
PHYS 208 General Physics	4 ² ,3
PLSC 204 Introduction to Soil Science	4 ¹ -4
POSC 350 Politics and the Environment	3 ² -4

Within the college.

Related Work

MATH 241, MATH 242, MATH 243 Analytic Geometry and Calculus	12 ¹ ,2
One of the following four courses:	
MATH 302 Differential Equations	3 ² ,3
MATH 349 Elements of Linear Systems	3 ² ,3
STAT 450 Statistics for Engineering & Physical Sciences	3 ³ ,4
STAT 657 Statistics for Earth Sciences	3 ³ ,4
CHEM 103, CHEM 104 General Chemistry	8 ¹ ,2
PHYS 207 General Physics	4 ² ,3
or	
PHYS 201 General Physics	4 ² ,3

SUGGESTED CURRICULUM (continued)

CREDITS*

Skill Requirements

Writing:

3^{3,4}

A writing course that involves significant writing experience including two papers with a combined minimum of 3000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in each semester's Registration Booklet.

Foreign Language

0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language or, for students with more than 4 years of high school foreign language or the equivalent, satisfactory performance on proficiency test in that language.

Breadth Requirements.

Nine credits are required in each of the following groups:

27¹⁻⁴

Group A. Understanding and appreciation of the creative arts and humanities. At least two areas must be represented.

Group B. The study of culture and institutions over time. At least two areas must be represented.

Group C. Empirically based study of human beings and their environment. At least two areas must be represented.

ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirements for the degree.

CREDITS TO TOTAL A MINIMUM OF:

127

* Superscript figures indicate year or years in which the course is normally taken, i.e., ¹ freshman year, ² sophomore year, etc.

UNIVERSITY OF DELAWARE INTER-DEPARTMENTAL

Memorandum



November 28, 1990

MEMORANDUM TO: Dr. John McLaughlin, President
College of Arts & Science Senate

FROM: Jeffrey Davidson, Chair *Jeffrey Davidson*
Educational Affairs Committee *(cw)*

At its last meeting, the Educational Affairs Committee reviewed the attached proposal for a Foreign Language Honors Certificate in selected majors, i.e. Business and Economics, Engineering, International Relations and Political Science. The Committee unanimously approved the concept of this proposal with the following reservations.

1. The word concentration be stricken and the word certificate be used to describe the program.
2. The questions of faculty and funding be addressed and answered before the program is approved. The Committee believes it might be appropriate to ask the Colleges of Business and Economics and Engineering to help shoulder the burden of funding this program.

CW

cc: Dr. Kenneth Biederman, Dean, Business & Economics
Dr. Robert F. Brown, Director, University Honors Program
Dr. R. Byron Pipes, Dean, Engineering
Dr. James R. Soles, Chair, Political Science & International Relations
Dr. Richard Zipser, Chair, Foreign Languages & Literatures

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES
FOREIGN LANGUAGE ~~CONCENTRATION~~ CERTIFICATE
FOR
BUSINESS AND ECONOMICS STUDENTS

The success of our students in their future careers and the effectiveness of their contribution to a vigorous economy will be significantly affected by the appropriateness of the skills and the background that they acquire in their university studies. Faced with the dynamics of the global market place, students in business and economics especially have a need to understand the social ways and professional practices in other countries, particularly those of the European Community, the Pacific Rim, and Latin America. The Department of Foreign Languages and Literatures proposes to offer, in collaboration with the College of Business and Economics and University Honors, a program of integrated courses and activities directed toward increasing the foreign language proficiency/cultural awareness of business and economics students and preparing them to function better at the international level.

This new program with its coherent sequence of 200/300-level courses and related extracurricular activities is intended to provide an international dimension to the degrees awarded by the College of Business and Economics that could be recognized on the diploma either as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) or as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) and Honors recognition. [For more information on Honors recognition, see page 3.]

It would be desirable to have this program accessible to all business and economics freshmen, regardless of their background in foreign languages. And at least in principle, it should be possible to complete the special requirements for the Bachelor Degree with a Foreign Language Concentration within four years and within the framework of the suggested curriculum of the College of Business and Economics. In order to make effective use of expertise within the Department of Foreign Languages and Literatures, the pilot project would initially include concentrations in German, French, and Spanish, then eventually be expanded to include Japanese.

For business and economics students particularly, familiarity with the cultural infrastructure and some direct exposure to business practice abroad is crucial. The Department of Foreign Languages and Literatures winter session programs can provide such an opportunity. The formal agreement which the University of Delaware has with the University of Bayreuth in Germany provides for collaboration in research and teaching through

faculty and student exchange at all levels and in many areas. The procedures and contacts for creating a lively program of language study and cultural immersion (study trips, weekend excursions, cultural and other public events) have proven highly successful during the initial winter sessions. The addition of some professional enrichment activities tailored to our business and economics students will rely on these same proven mechanisms.

For the Bachelor Degree in Accounting, Business Administration or Economics with a Foreign Language Concentration in German, a basis for collaboration would be provided by the following program. It would include a language course providing an Introduction to Business German (GER 250) and a course in German Civilization and Culture (GER 325), as well as participation in the Winter Session in Bayreuth, where two other required German courses (GER 206 and GER 208) would be offered.

1. Participation in a winter session in Bayreuth, Germany (first group in January 1991), which would include:

GER 206: Culture through Conversation. (3 credits)
Discussion of topics drawn from contemporary German life. Designed for students who wish to broaden their knowledge of German culture while improving their oral and aural language skills.

GER 208: Contemporary Germany I. (3 credits)
An introduction to contemporary Germany, its culture, its people, their way of life and the issues confronting them. (The Honors section would include some exposure to business practice in Germany: it would involve guest speakers from the business community and relevant departments at the University of Bayreuth.)

2. **GER 250: Introduction to Business German. (3 credits)**
Familiarizes students with characteristics of business German (vocabulary, terminology, and syntactical patterns) and aspects of the German business community.
3. **GER 325: German Civilization and Culture. (3 credits)**
A survey of the major cultural, social, and political developments in Germany from the mid-18th century to the present.

Proposed concentrations in French and Spanish would introduce identical sequences making use of winter session programs in Caen (France) and Granada (Spain). The intention is to add a similar concentration in Japanese as soon as this is feasible.

To earn a Bachelor Degree in Accounting, Business Administration or Economics with a Foreign Language Concentration, a student would be required to complete the designated sequence of four 200- and 300-level German courses with no grade below a C.

To earn a Bachelor Degree in Accounting, Business Administration or Economics with a Foreign Language Concentration and Honors recognition, a student would be required:

- to complete the designated sequence of four 200- and 300-level German courses with no grade below a B;
- to take all four of these courses for Honors credits;
- to achieve a 3.0 cumulative grade index by the time of graduation.

Honors recognition would come in the form of the Honors Foreign Language Certificate, which would generally be awarded during an appropriate Honors ceremony (e.g., on Honors Day) and recorded on the recipient's official transcript. The Honors Foreign Language Certificate could be earned in addition to the General Honors Certificate. Honors courses taken in the sequence leading to the Honors Foreign Language Certificate could also be applied toward those required for the General Honors Certificate.

May, 1990

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES
~~CERTIFICATE~~
FOREIGN LANGUAGE CONCENTRATION FOR ENGINEERING STUDENTS

The success of our students in their future careers and the effectiveness of their contribution to a vigorous economy will be significantly affected by the appropriateness of the skills and the background that they acquire in their university studies. Faced with the dynamics of the global market place, students in engineering and business especially have a need to understand the social ways and professional practices in other countries, particularly those of the European Community, the Pacific Rim, and Latin America. The Department of Foreign Languages and Literatures proposes to offer, in collaboration with the College of Engineering and University Honors, a program of integrated courses and activities directed toward increasing the foreign language proficiency/cultural awareness of engineering students and preparing them to function better at the international level.

This new program with its coherent sequence of 200/300-level courses and related extracurricular activities is intended to provide an international dimension to the engineering degree that could be recognized on the diploma either as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) or as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) and Honors recognition. [For more information on Honors recognition, see page 3.]

It would be desirable to have this program accessible to all engineering freshmen, regardless of their background in foreign languages. And at least in principle, it should be possible to complete the special requirements for the Bachelor Degree with a Foreign Language Concentration within four years and within the framework of the General Education Program of the College of Engineering. In order to make effective use of expertise within the Department of Foreign Languages and Literatures, the initial pilot project would focus on German, though similar programs would eventually be developed for French, Spanish, and Japanese.

For engineering students particularly, familiarity with the cultural infrastructure and some direct exposure to hands-on engineering practice abroad is crucial. The Department of Foreign Languages and Literatures winter session programs can provide such an opportunity. The formal agreement which the University of Delaware has with the University of Bayreuth in Germany provides for collaboration in research and teaching through faculty and student exchange at all levels and in many areas. The procedures and contacts for creating a lively program of language study and cultural immersion (study trips, weekend excursions, cultural and other public events) have proven highly successful during the initial winter sessions. The addition of some technical enrichment programs tailored to our engineering students will rely on these same proven mechanisms.

For the Bachelor Degree in Engineering with a Foreign Language Concentration in German, a basis for collaboration would be provided by the following program. It would include a language course focusing on German Culture and Technology (GER 2XX) and a course in German Civilization and Culture (GER 325), as well as participation in the Winter Session in Bayreuth, where two other required German courses (GER 206 and GER 208) would be offered.

1. Participation in a winter session in Bayreuth, Germany (first group in January 1991), which would include:

GER 206: Culture through Conversation. (3 credits)
Discussion of topics drawn from contemporary German life. Designed for students who wish to broaden their knowledge of German culture while improving their oral and aural language skills.

GER 208: Contemporary Germany I. (3 credits)
An introduction to contemporary Germany, its culture, its people, their way of life and the issues confronting them. (The Honors section would include some exposure to engineering practice in Germany: it would involve guest speakers from the engineering community and relevant departments at the University of Bayreuth.)

2. **GER 2XX: German Culture and Technology. (3 credits)**
Beyond an introductory review of technical language that has been absorbed into popular usage, the instructional materials would reflect a concept of culture that is appropriate in modern society and that would include a survey of the history and organization of science and technology in Germany, a consideration of business and technology in the social context, as well as some sociological aspects of the working place. In addition to the more conventional resources, video and text materials would be used that would be drawn from all levels of contemporary cultural life in Germany. (Given the necessary funding, this course would be developed in 1990-91 and first offered in 1991-92.)

3. **GER 325: German Civilization and Culture. (3 credits)**
A survey of the major cultural, social, and political developments in Germany from the mid-18th century to the present.

Proposed concentrations in French and Spanish would introduce identical sequences making use of winter session programs in Caen (France) and Granada (Spain). The intention is to add a similar concentration in Japanese as soon as this is feasible.

To earn a Bachelor Degree in Engineering with a Foreign Language Concentration, an engineering student would be required to complete the designated sequence of four 200- and 300-level German courses with no grade below a C.

To earn a Bachelor Degree in Engineering with a Foreign Language Concentration and Honors recognition, an engineering student would be required:

- to complete the designated sequence of four 200- and 300-level German courses with no grade below a B;
- to take all four of these courses for Honors credits;
- to achieve a 3.0 cumulative grade index by the time of graduation.

Honors recognition would come in the form of the Honors Foreign Language Certificate, which would generally be awarded during an appropriate Honors ceremony (e.g., on Honors Day) and recorded on the recipient's official transcript. The Honors Foreign Language Certificate could be earned in addition to the General Honors Certificate. Honors courses taken in the sequence leading to the Honors Foreign Language Certificate could also be applied toward those required for the General Honors Certificate.

May, 1990

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES
~~CERTIFICATE~~
~~FOREIGN LANGUAGE CONCENTRATION~~
FOR
INTERNATIONAL RELATIONS AND POLITICAL SCIENCE STUDENTS

The success of our students in their future careers and the effectiveness of their contribution to a vigorous economy will be significantly affected by the appropriateness of the skills and the background that they acquire in their university studies. Faced with the dynamics of the global market place, students in international relations and political science especially have a need to understand the social ways and professional practices in other countries, particularly those of the European Community, the Pacific Rim, and Latin America. The Department of Foreign Languages and Literatures proposes to offer, in collaboration with the Department of Political Science and International Relations and University Honors, a program of integrated courses and activities directed toward increasing the foreign language proficiency/cultural awareness of international relations and political science students and preparing them to function better at the international level.

This new program with its coherent sequence of 200/300-level courses and related extracurricular activities is intended to enhance the international dimension of the international relations or political science degrees awarded by the College of Arts and Sciences that could be recognized on the diploma either as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) or as a Bachelor Degree with a Foreign Language Concentration (e.g., in German) and Honors recognition. [For more information on Honors recognition, see page 3.]

It would be desirable to have this program accessible to all international relations and political science freshmen, regardless of their background in foreign languages. And at least in principle, it should be possible to complete the special requirements for the Bachelor Degree with a Foreign Language Concentration within four years and within the framework of the suggested curriculum of the College of Arts and Sciences. In order to make effective use of expertise within the Department of Foreign Languages and Literatures, the pilot project would initially include concentrations in German, French, and Spanish; eventually, it would be expanded to include Japanese and possibly Russian, Italian, and Chinese.

For international relations and political science students particularly, familiarity with the cultural infrastructure and some direct exposure to the political and economic system abroad is crucial. The Department of Foreign Languages and Literatures winter session programs can provide such an opportunity. The formal agreement which the University of Delaware has with the University of Bayreuth in Germany provides for collaboration in

research and teaching through faculty and student exchange at all levels and in many areas. The procedures and contacts for creating a lively program of language study and cultural immersion (study trips, weekend excursions, cultural and other public events) have proven highly successful during the initial winter sessions. The addition of some professional enrichment activities tailored to our international relations and political science students will rely on these same proven mechanisms.

For the Bachelor Degree in International Relations and Political Science with a Foreign Language Concentration in German, a basis for collaboration would be provided by the following program. It would include a language course focusing on German Politics in the Press (GER 255) and a course in German Civilization and Culture (GER 325), as well as participation in the Winter Session in Bayreuth, where two other required German courses (GER 206 and GER 208) would be offered.

1. Participation in a winter session in Bayreuth, Germany (first group in January 1991), which would include:

GER 206: Culture through Conversation. (3 credits)
Discussion of topics drawn from contemporary German life. Designed for students who wish to broaden their knowledge of German culture while improving their oral and aural language skills.

GER 208: Contemporary Germany I. (3 credits)
An introduction to contemporary Germany, its culture, its people, their way of life and the issues confronting them. (The Honors section would include some exposure to business practice in Germany: it would involve guest speakers from the business community and relevant departments at the University of Bayreuth.)

2. GER 255: German Politics in the Press. (3 credits)
A study of current events related to the internal and external politics of Germany. Students will investigate topics in contemporary German politics as expressed in the news media. Focus of the study will be the German press: newspapers and magazines printed in the German language.
3. GER 325: German Civilization and Culture. (3 credits)
A survey of the major cultural, social, and political developments in Germany from the mid-18th century to the present.

Proposed concentrations in French and Spanish would introduce identical sequences making use of winter session programs in Caen (France) and Granada (Spain). The intention is to add a similar concentration in Japanese as soon as this is feasible.

To earn a Bachelor Degree in International Relations or Political Science with a Foreign Language Concentration, a student would be required to complete the designated sequence of four 200- and 300-level German courses with no grade below a C.

To earn a Bachelor Degree in International Relations or Political Science with a Foreign Language Concentration and Honors recognition, a student would be required:

- to complete the designated sequence of four 200- and 300-level German courses with no grade below a B;
- to take all four of these courses for Honors credits;
- to achieve a 3.0 cumulative grade index by the time of graduation.

Honors recognition would come in the form of the Honors Foreign Language Certificate, which would generally be awarded during an appropriate Honors ceremony (e.g., on Honors Day) and recorded on the recipient's official transcript. The Honors Foreign Language Certificate could be earned in addition to the General Honors Certificate. Honors courses taken in the sequence leading to the Honors Foreign Language Certificate could also be applied toward those required for the General Honors Certificate.

May, 1990



University of Delaware

COLLEGE OF BUSINESS & ECONOMICS
OFFICE OF THE DEAN
PURNELL HALL
NEWARK, DELAWARE 19716

(302) 451-2551

OFFICE OF THE DEAN
COLLEGE OF BUSINESS AND ECONOMICS
UNIVERSITY OF DELAWARE

M E M O R A N D U M

DATE: August 24, 1990

TO: Richard A. Zipser, Chair
Foreign Languages and Literatures

FROM: Lawrence P. Donnelley *L P Donnelley*
Acting Dean

SUBJECT: Foreign Language Concentration for Business and Economics
Students

I strongly endorse the proposed "Foreign Language Concentration for Business and Economics Students" and hope that we will be in a position to implement this important program for 1991. The Curriculum Committee of the College has reviewed the proposal and found it to be a valuable option for our students. We recognize the importance of foreign language skills for our graduates, many of whom will work in a global business environment. The College of Business and Economics faculty looks forward to collaborating with Foreign Languages and Literatures and the University Honors Program in making the program a success. I encourage you to offer concentrations leading to an Honors Foreign Language Certificate in French, Spanish, and Japanese just as soon as your faculty resources will permit their development.

Please call on me if you need my assistance as you proceed to seek further approval for the program.



University of Delaware

COLLEGE OF ENGINEERING
NEWARK, DELAWARE 19716
OFFICE OF THE DEAN
PHONE: 302-451-2401

August 20, 1990

MEMORANDUM

TO : Richard A. Zipser, Chair
Foreign Languages and Literatures

FROM : R. Byron Pipes, Dean
College of Engineering

SUBJECT : Foreign Language Concentration for Engineering
Students

I wish to indicate my endorsement of the Proposed "Foreign Language Concentration for Engineering Students" and anticipate that we will be in a position to implement this important program in 1991. I am sure that the faculty of the College of Engineering looks forward to collaborating with Foreign Languages and Literatures and the University Honors Program in this way. We encourage you to offer concentrations leading to an Honors Foreign Language Certificate in French, Japanese, and Spanish, as well as in German, just as soon as your faculty resources will permit their development.

If you need my assistance as you proceed to seek further approval from curricular committees in the College of Arts and Science, do not hesitate to call upon me.

S

Memorandum



20 September 1990

TO: Richard A. Zipser, Chair
Foreign Languages and Literature

FROM: James R. Soles, Chairperson
Political Science and International Relations

SUBJECT: Foreign Language Concentration for International
Relations and Political Science Students

I wish to strongly endorse the proposed foreign language concentration for International Relations and Political Science students. The creation of this concentration will add an important dimension to our programs and create unique opportunities for students in International Relations and Political Science. The faculty of our Department looks forward to working with the Department of Foreign Languages and Literature and the University Honors Program in creating a program to enhance the education of our students. We encourage you to add additional concentrations in other languages as rapidly as faculty resources will permit.

If I may be helpful in any way, please call upon me for that assistance.

JRS:nd

Memorandum



DATE: August 30, 1990

TO: Richard Zipser
Foreign Languages & Literatures

FROM: Robert F. Brown *Robert F. Brown*
UHP

SUBJECT: Proposals for Foreign Language Concentrations, with
Honors Recognition, for Selected Majors

This memo reflects the current position of the University Honors Program with regard to these proposals. It should be transmitted with the proposals and supporting documents as they pass through the various stages of review.

The University Honors Program endorses the concept embodied in the proposals, insofar as they involve an element of Honors recognition and therefore fall within our purview. This endorsement embraces the following points:

1. A package of four foreign language courses (three credits each) beyond the elementary level, as in the illustrations provided, to constitute the curricular requirements.
2. The stated course grade and cumulative index requirements for the Honors recognition.
3. The awarding of an Honors Foreign Language Certificate. (One problem here might be the awarding of the certificate prior to graduation, when the cumulative index requirement of 3.0 is to be the student's final index.)
4. The principle of establishing such concentrations for other appropriate colleges or majors than those presently proposed (Business and Economics, Engineering, International Relations and Political Science), and for other appropriate foreign languages too.

In light of this general endorsement, we believe these proposals should go forward to the Committee on Educational Affairs of the College of Arts and Science, and beyond. In that review process certain difficulties can be ironed out.

Provisos and problems from the Honors perspective that need careful attention in the review process are these:

1. An Honors section of a particular course needs to have enrichment features beyond those of its regular counterpart, so that the awarding

of the Honors designation and credit is fully justified. The University Honors Program must be the one to decide under what conditions an Honors designation will be appropriate for these sections, just as it decides that for all other Honors courses of the University.

2. The terminology of the proposals needs further consideration before it becomes fixed.

a. Perhaps "concentration" will cause problems because it does not parallel the "concentrations" within certain majors. It might be safer just to speak of a Foreign Language Certificate, and the cluster of courses needed to earn it.

b. "Honors recognition" as a descriptive phrase needs to be handled carefully, so that it cannot be construed as applying to the major (e.g., International Relations), or as suggesting an Honors foreign language major. For instance (see p. 3 of any of the proposals): "To earn a Bachelor Degree in International Relations ... with an Honors Foreign Language Certificate ..." is preferable to "... with a Foreign Language Concentration and Honors recognition ..."

The University Honors Program staff will be happy to work with you, and with the relevant University committees, to make these and any other needed refinements as the proposals move through the approval process.

pj

HONORS DEGREE

Honors B.S. in Agriculture, Dean's Scholar in the College of Agricultural Sciences.

The recipient must complete:

- a) All requirements of the Dean's Scholar Program in the College of Agricultural Sciences. (Major in one of the College's programs with selected course adjustments as approved by the appropriate department Chair and the Associate Dean of the College.)
- b) The University's generic requirements for the Honors Degree. Required Honors courses in or approved by the major department shall mean Honors courses approved for the individual student for this purpose by the College officials who supervise the Dean's Scholar Program.

Policy for Responsible Computing Use

The University of Delaware aims to provide the best possible computing and information resources to students, faculty, and staff with the fewest restrictions. That is, the University tries to manage these resources in such a way that students, faculty, and staff can freely participate in an open exchange of ideas with each other, with colleagues at other universities, and with appropriate off-campus information resources.

This open approach requires that all members of the University community who use the University's computing and information resources act cooperatively and responsibly. The well-being of these resources is the responsibility of every user of those resources. Users and system administrators must all guard against abuses which disrupt or threaten the viability of all systems, including those at the University and those on networks to which the University's systems are connected. It is the policy of the University of Delaware that all members of its community act in accordance with these responsibilities, relevant laws and contractual obligations, and the highest standard of ethics.

Access to the University's computing facilities and information resources is a privilege granted to University students, faculty, and staff. As such, the University reserves the right to limit, restrict, or extend access to its computing facilities and information resources. Individual departments or units may choose to allow individuals other than University faculty, staff, and students access to certain information resources, so long as such access does not violate any license or contractual agreement; University policy; or any federal, state, county, or local law or ordinance.

Computer equipment and accounts are to be used only for the purposes for which they are assigned. All users of University-owned or University-leased computing systems, whether the system(s) are operated by a central computing unit such as Computing and Network Services or by any other University department, must conduct their computing activities in a responsible manner, respecting the rights of other computing users, respecting the integrity of the physical facilities, and respecting all pertinent license and contractual agreements.

Computing facilities and accounts are owned by the University and are to be used for University-related activities only. University computing and information resources are not to be used for commercial purposes or non-University-related activities without written authorization from the University. In these cases, the University may require payment of appropriate fees. This policy applies equally to all University-owned or University-leased computers.

Unauthorized access to information stored on a computer and unauthorized use of University computing resources are both direct violations of the University's standards for ethical conduct as outlined in the *University of Delaware Policy Manual*, the *Personnel Policies and Procedures for Professional and Salaried Staff*, the *Faculty Handbook*, and the *Official Student Handbook*.

The University of Delaware treats the abuse of computing facilities, equipment, software, information, networks, or privileges as seriously as it treats other violations of its codes of conduct. Disciplinary action resulting from such abuse may range from suspension of computing privileges to other more severe University sanctions, and may also include prosecution under Title 11, §931—§939 of the Delaware Code or appropriate Federal laws.

NASULGC Council on Student Affairs
Resolution on
the Department of Defense Exclusionary Policy
Against Homosexuality in ROTC Programs
November 13, 1990

In 1948, President Truman issued an Executive Order to desegregate the nation's armed forces. This entitled African-Americans, American Indians, Asian-Americans, Latinos and other Hispanics and men and women of all races to have equal opportunities in the military and to contribute to society as equal citizens. Homosexual men and women, however, are not treated as equal citizens by the military, even though there are no differences in the performance of homosexuals and heterosexuals in the military. This has become a significant issue in our society and public universities where efforts are being made to eliminate irrelevant factors that prohibit citizens from realizing their full potential in society.

The policy of the United States Department of Defense posits that homosexuality is incompatible with military service, although the military does not discriminate on the basis of religion, race, color, creed or national origin. The military asserts that discrimination against homosexuality in military service is necessary to maintain public acceptability of military service. The military maintains that discrimination against homosexuals in the military is legal. The Supreme Court has stated that the question of discrimination against homosexuals in the military is not a judicial but rather a legislative question.

Whereas, public universities affirm that students have the right and institutions have the responsibility to provide equal educational opportunities for all students; and whereas, public universities must promulgate values to promote institutional integrity and foster diversity in concert with the mission of public universities; and whereas, ROTC has an important place in the public institution to serve the nation by providing education for future military leaders; and whereas, the military's policy of exclusion based on sexual orientation should not make victims of students currently enrolled in ROTC programs,

Therefore, be it resolved that the Council on Student Affairs affirms the rights and opportunities for all students to enroll in ROTC classes for which they have the academic preparation, and the rights of all students in ROTC to be eligible to receive full benefits including scholarship support as students and commissioning into the military service upon graduation.

Be it further resolved that the NASULGC Council on Student Affairs recommends to the Executive Committee of NASULGC that initiatives be developed and supported through the Congressional/legislative process to change the DOD policy of exclusion of homosexuals in the military.

Comparison of Present and Proposed Honors Certificates

General Honors Certificate

(Presently awarded for first two years of Honors work; to be discontinued.)

Freshman Year:

Fifteen Honors credits,
including Colloquium and Forum.
Residence in Honors housing.

Sophomore Year:

At least 3 Honors credits.

Overall:

Sixty credits at U. of D., 24
in Honors, with 3.00 G.P.A.

Certificate eligibility ends with
conclusion of sophomore year.

First Year Honors Certificate

(Proposed)

First Year:

Fifteen Honors credits,
including Colloquium and Forum.
Thirty college credits overall
(at least 24 at the University).
Residence in Honors housing
for two semesters.
3.00 G.P.A.

Eligibility ends after first year.

Advanced Honors Certificate

(Proposed)

Eligibility begins with second year
and extends to graduation.

Requirements:

Twenty-one Honors credits
subsequent to first year; 12 at 300
level or higher.

Consistent participation in
intensive advising procedure.

G.P.A. of 3.00 upon completion
of other requirements.

Certificate awarded whenever these
requirements are completed.

Timetable For Chances In Honors Certificates

Fall 1991

General Honors Certificate awarded to students entering in Sept. 1989.

Fall 1992

General Honors Certificate awarded to students entering in Sept. 1990.

Intensive advisement procedure for Advanced Honors status and the Advanced Honors Certificate begins to function for current juniors (the group eligible to receive the General Honors Certificate this term).

Spring 1993

Intensive advisement begins to function for current sophomores, and for first year students in their second semester.

Fall 1993

General Honors Certificate awarded to students entering in Sept. 1991 (the last group eligible for it.)

First Year Honors Certificate awarded to students entering in Sept. 1992.

From this point on, the Advanced Honors intensive advisement procedure functions continuously for all Honors students except those in the first semester of the first year (for whom it is not appropriate).

Fall 1994

First Year Honors Certificate awarded to students entering in Sept. 1993.

(The General Honors Certificate has ceased to exist.)

Spring 1995

Probable date for first ceremony to award Advanced Honors Certificate; subsequent ceremonies each spring thereafter.

(Note. The ceremony to present the First Year Honors Certificate will, after 1993, replace the current October ceremony for the General Honors Certificate. The new spring ceremony, for the Advanced Honors Certificate, will recognize all who have qualified for it within the preceding twelve months; however, qualifiers who in the interim have graduated or left the University will receive their certificates in the mail at the appropriate time prior to the ceremony.)

Current Generic Honors Degree Requirements (from 1990-91 Undergraduate Academic Programs and Policies Catalog, pp. 33-34).

Honors Degrees. Honors Degrees are currently available in the following programs: Anthropology, Art History, Biology, Chemistry and Biochemistry, Computer and Information Sciences, Economics, Educational Studies, English, History, Liberal Studies, Music, Philosophy, Physics and Astronomy, Political Science and International Relations, Psychology, and Arts and Science Dean's Scholar.

A candidate for an Honors Baccalaureate Degree must satisfy the following:

- I. The requirements for the baccalaureate degree in the major (including all University and college requirements).
- II. The generic requirements for the Honors Degree:
 - A. The candidate's University of Delaware cumulative grade-point index must be at least 3.4 at the time of graduation. (A department may specify a minimum grade-point index within the major.)
 - B. At least 60 of the total credits accumulated for graduation must be at the 300 level or above.
 - C. The candidate must complete at least 30 credit hours of designate Honors courses meeting the following qualifications:
 1. At least 12 Honors credits must be earned in courses in the major department and approved by the Honors Program (certain graduate-level courses may be designated as satisfying Honors credits).
 2. Six Honors credits must be earned in the Honors Tutorials: U 490 Humanities (3 credits) and U 491 Natural/Social Sciences (3 credits).
 3. At least 6 Honors credits must be earned in courses outside the areas defined in C-1 and C-2 above.
 4. At least 12 Honors credits must be earned at the 300 level or higher in any combination of C-1, C-2, or C-3 above.
 - D. In addition to the 30 credits of Honors courses in II.C, the candidate must complete 6 credits of Honors thesis or project (U 401-80 and U 402-80) and give an oral presentation of the thesis or project to a committee of faculty approved by the major department and the Honors Program. U 401-80 and U 402-80 are taken in the senior year; however, work on the thesis or project should begin in the junior year to allow completion during the senior year.
 - E. The candidate must take a comprehensive written examination in the major in the senior year, administered by the major department.
- III. Submission of the Honors Degree Application Form should be made during the sophomore year and must be made no later than the end of the junior year at the UHP office, 186 S. College Avenue. Neither completion of the freshman year in the Honors Program nor receipt of the General Honors Certificate is required for an Honors Degree.

Summary of Proposed Changes in Generic Honors Degree Requirements

- I. Addition of "as well as any other specific requirements the major department may set for the Honors Degree."

(Legitimizes discipline-specific requirements that exceed the normal major requirements, including the possibility of requiring a comprehensive exam for units wishing to retain it; see E below.)

- II. C-1. Addition of "or in courses of collateral disciplines specifically required for the major."

(Legitimizes present practice, making it clear, for instance, that certain "professional requirements"--courses with rubrics different from that of the major requiring them--are countable under this heading.)

- II. C-2 and 3. The present requirement of two Tutorials, differentiated as to topic, is replaced by the requirement of one Tutorial, unspecified as to topic, and one Seminar course.

- II. D. Makes it clear that the thesis or project must be "acceptable," and must be presented "successfully."

- II. E. Comprehensive exam requirement--deleted from new statement of requirements.

(There are strong arguments for deleting this as a requirement for all Honors Degrees, leaving it up to individual departments to decide whether they wish to retain it--see I. above.

In any event, the current statement of the requirement is defective. Its form, if retained generically or just by individual departments, ought to be:

"A comprehensive examination passed in the major, to be administered by the major department and taken in the senior year.")

Throughout: The wording has been improved without change in substance, and unnecessary or inappropriate items (such as the address of the Honors Program office) deleted.

