

# UNIVERSITY FACULTY SENATE

## SUMMARY OF AGENDA

May 5, 1986

- I. ADOPTION OF THE AGENDA
- II. APPROVAL OF THE MINUTES: April 7, 1986
- III. REMARKS BY PRESIDENT TRABANT and/or PROVOST CAMPBELL
- IV. ANNOUNCEMENTS

- 1. Senate President Soles

### ANNOUNCEMENTS FOR CHALLENGE

- 1. Revision of the minor in International Business
- 2. Revision of the B.S. in Recreation and Park Administration
- 3. Revision of the B.S. in Agriculture: Entomology and Entomology/Plant Pathology
- 4. Revision of the minor in Entomology
- 5. Revision of the major in Agricultural Engineering Technology
- 6. Revision of the B.S. in Human Resources: Design
- 7. Revision of the major in Visual Communications
- 8. Revision of the B.S. in Human Resources: Consumer Economics
- 9. Change in name of graduate major from "Mechanical and Aerospace Engineering" to "Mechanical Engineering" and change in name of the Master's degree to "Masters of Mechanical Engineering"
- 10. Change in name of M.S. degree in "Ornamental Horticulture" to M.S. in "Public Horticulture Administration"
- 11. Minor in Food Science
- 12. Minor in American Studies
- 13. Revision of the B.S. in Statistics
- 14. Revision of B.S. in Mathematical Sciences
- 15. Revision of B.A. in Mathematical Sciences
- 16. Revision of B.S. in Human Resources: Community & Family Services
- 17. Revision of the Communication major.
- 18. Miscellaneous minor changes in curricula leading to teacher certification
- 19. Revision of B.S. in Business Administration -- Financial Management only

V. OLD BUSINESS

- A. Report from the Library Committee

VI. NEW BUSINESS

- A. Election of Senate officers and certain committee members and chairs
- B. Request for confirmation of committee appointments
- C. Recommendation for consolidation of two graduate programs into a new interdisciplinary program in Vocational Studies
- D. Recommendation for the establishment of a major in Earth Science Education
- E. Recommendation changing the charge to the Committee on Graduate Studies.
- F. Introduction of new business



# University of Delaware

UNIVERSITY FACULTY SENATE  
301 HULLIHEN HALL  
NEWARK, DELAWARE 19716

(302) 451-2921

April 23, 1986

TO: All Faculty Members

FROM: Raymond A. Callahan, Vice President  
University Faculty Senate

SUBJECT: Regular Faculty Senate Meeting, May 5, 1986

*Raymond Callahan*

In accordance with Section IV, paragraph 6 of the Constitution, the regular meeting of the University Faculty Senate will be held on Monday, May 5, 1986 at 4:00 p.m. in room 110 Memorial Hall.

## AGENDA

- I. Adoption of the Agenda.
  - II. Approval of the minutes of the Senate meeting of April 7, 1986.
  - III. Remarks by President Trabant and/or Provost Campbell.
  - IV. Announcements
    1. Senate President Soles
- Announcements for Challenge
1. Revision of the minor in International Business. (Attachment 1)
  2. Revision of the B.S. in Recreation and Park Administration. (Attachment 2)
  3. Revision of the B.S. in Agriculture: Entomology and Entomology/Plant Pathology. (Attachment 3)
  4. Revision of the minor in Entomology. (Attachment 4)
  5. Revision of the major in Agricultural Engineering Technology. (Attachment 5)

6. Revision of the B.S. in Human Resources: Design.  
(Attachment 6)
7. Revision of the major in Visual Communications.  
(Attachment 7)
8. Revision of the B.S. in Human Resources: Consumer  
Economics. (Attachment 8)
9. Change in name of graduate major from "Mechanical and  
Aerospace Engineering" to "Mechanical Engineering" and  
change in name of the Master's degree to "Masters of  
Mechanical Engineering." (Attachment 9)
10. Change in name of M.S. degree in "Ornamental  
Horticulture" to M.S. in "Public Horticulture  
Administration." (Attachment 10)
11. Minor in Food Science. (Attachment 11)
12. Minor in American Studies. (Attachment 12)
13. Revision of B.S. in Statistics. (Attachment 13)
14. Revision of B.S. in Mathematical Sciences.  
(Attachment 14)
15. Revision of B.A. in Mathematical Sciences.  
(Attachment 15)
16. Revision of B.S. in Human Resources: Community & Family  
Services. (Attachment 16)
17. Revision of the Communication major. (Attachment 17)
18. Miscellaneous minor changes in curricula leading to  
teacher certification. (Attachment 18)
19. Revision of B.S. in Business Administration -- Financial  
Management only. (Attachment 19)

V. Old Business

- A. Report from the Library Committee. (Attachment 20)

VI. New Business

- A. Elections of Senate officers, a chairperson of the  
Coordinating Committee on Education, one member of the  
Committee on Committees, one member of the Rules Committee,  
and two members of the Nominating Committee.

[Note: a slate of nominees prepared by the Nominating Committee (Jerry Beasley, chair), is presented in Attachment 21. Biographies of the nominees are attached as Attachment 22. 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 (L. Goldstein, chair) for Senate confirmation of committee appointments. (Attachment 23)

RESOLVED, that the appointments to Senate committees and the appointments of Senate committee chairpersons, as presented in Attachment 23 of this Agenda, are hereby confirmed.

- C. Recommendation from the Coordinating Committee on Education (C. Toensmeyer, chair) with the concurrence of the Committee on Graduate Studies, for consolidation of two graduate programs into a new interdisciplinary program in Vocational Studies. (Attachment 24)

RESOLVED, that the University Faculty Senate approves the following:

1. Disestablish the graduate major of Education (concentration of occupational Teacher Education) leading to the M.S. degree.
2. Disestablish the graduate major of Home Economics Education leading to the M.S. degree.
3. Establish a new graduate major of Vocational Studies leading to the M.S. degree, as described in the proposal, for a 4-year provisional period, with review for permanent status to occur in the 1989-90 academic year.

- D. Recommendation from the Committee on Undergraduate Studies (R. Brown, chair) for the establishment of a major in Earth Science Education. (Attachment 25)

RESOLVED, that the University Faculty Senate approves the establishment of a major in Earth Science Education.

- E. Resolution from the Committee on Committees (L. Goldstein, chair) changing the charge to the Committee on Graduate Studies at its request.



WHEREAS: a registered graduate student organization has been formed on the University of Delaware campus; be it therefore

RESOLVED: that the charge to the Committee on Graduate Studies in Section III of the Faculty Handbook (p. I-20, paragraph 2) be changed to read as follows: [Change indicated in bold type]

This committee shall formulate, for determination by the faculty or its Senate, the policies for admission to graduate study. It shall have the power to act on the alteration, addition or deletion of individual graduate courses recommended by college committees, and it shall make recommendation to the faculty or its Senate on courses of study leading to graduate degrees and on matters of policy concerning graduate study, and may employ outside consultants toward this end. In the absence of a duly constituted graduate student government, each academic year it shall appoint the graduate student member of the Committee on Student Life.

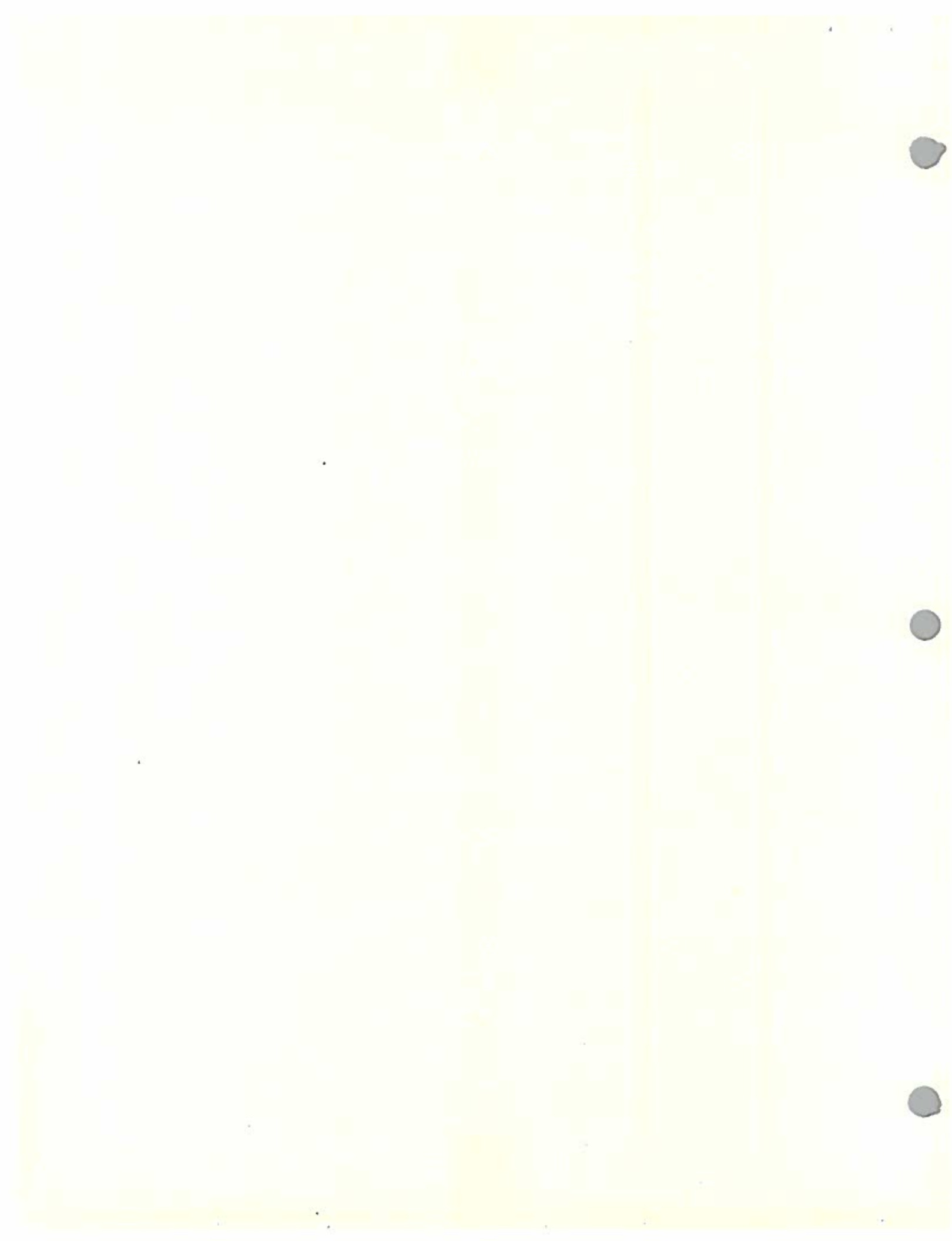
F. Such items as may come before the Senate. (No motion introduced at this time may be acted upon until the next meeting of the Senate.)

rg

Attachments: Committee Activities Report

1. Revision of minor in International Business
2. Revision of the B.S. in Recreation and Park Administration.
3. Revision of the B.S. in Agriculture
4. Revision of the minor in Entomology
5. Revision of the major in Agricultural Engineering Technology.
6. Revision of the B.S. in Human Resources: Design
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15. Revision of B.A. in Mathematical Sciences
16. Revision of B.S. in Human Resources: Community & Family Services
17. Revision of the Communication major

18. Miscellaneous minor changes in curricula leading to teacher certification
19. Revision of B.S. in Business Administration - Financial Management
20. Report from the Library Committee
21. Slate of nominees
22. Biographies of nominees
23. Committee appointments
24. Consolidation of two graduate programs into new interdisciplinary program in Vocational Studies
25. Major in Earth Science Education





## COMMITTEE ACTIVITIES REPORT

### ACADEMIC APPEALS, COMMITTEE ON (Gordon Bonner)

Committee on Committees is currently considering a change in the charge to this committee.

### ACADEMIC COMPLAINTS, UNIVERSITY REVIEW COMMITTEE FOR (Richard Sharf)

A complaint is currently in progress.

### ACADEMIC FREEDOM, COMMITTEE ON (Kenneth Haas)

No committee activities at this time.

### BEVERAGE ALCOHOL, COMMITTEE TO REGULATE THE USE OF (Steven Hastings)

Nothing pending.

### GRADUATE STUDIES, COMMITTEE ON (Jeffrey Raffel)

1. Considering sustaining fee for all graduate students.
2. Considering course revisions and approvals.

### INSTRUCTIONAL RESOURCES, COMMITTEE ON (Michael Pohlen)

No action in April.

### NOMINATING COMMITTEE (Jerry Beasley)

Elections for Senate positions will be conducted at May meeting.

### PHYSICAL PLANNING AND UTILIZATION, COMMITTEE ON (Kenneth Lomax)

Nothing pending.

### PROMOTIONS AND TENURE, COMMITTEE ON (Dewey Caron)

Committee has concluded 7 appeals of decisions. Of 48 total candidates, 41 were recommended to the Provost for promotion. Of 21 that included tenure, 17 were favorably recommended. Committee continues to work with several units regarding their promotion and tenure policies.

### RULES, COMMITTEE ON (Robert Taggart)

Completed discussion on Senate representation for faculty and Dean of the Parallel Program.

STUDENT AND FACULTY HONORS, COMMITTEE ON (Ralph Ferretti)

The committee has narrowed the field of candidates for the outstanding teacher award to eight. We continue to deliberate about these candidates.

UNDERGRADUATE ADMISSIONS AND STANDING, COMMITTEE ON (William Ritter)

Reviewing undergraduate admissions standards.

UNDERGRADUATE RECORDS AND CERTIFICATION, COMMITTEE ON (R. Dean Shippy)

Committee met on March 26, 1986, and acted on student petitions.

UNDERGRADUATE STUDIES, COMMITTEE ON (Robert Brown)

1. Discussing cross-listing problems for interdisciplinary units.
2. Discussing criteria for honors courses.
3. Discussing multicultural course requirement.
4. Discussing policy on double-listed courses.

VISITING SCHOLARS AND SPEAKERS SUBCOMMITTEE (Frank Dilley)

The committee has expended all of its funds for this year but is receiving requests for next year's committee.

/wc



# University of Delaware

Attachment 1

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

(302) 451-2551

**DATE:** March 3, 1986

**TO:** Robert F. Brown, Chairman  
Committee on Undergraduate Studies  
Faculty Senate

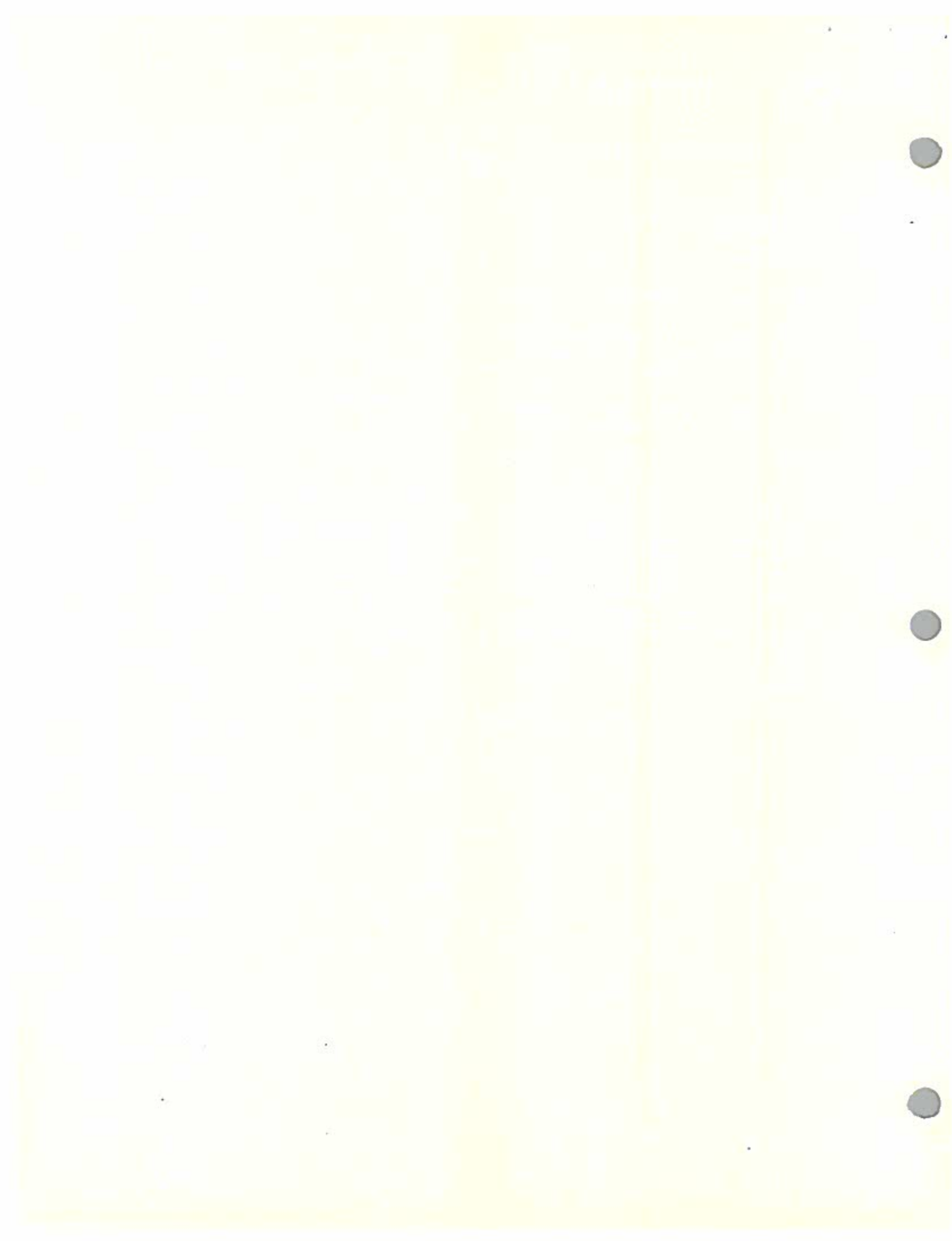
**FROM:** James L. Butkiewicz, Associate Dean  
College of Business and Economics

*James L. Butkiewicz*

**SUBJECT:** Change in the Minor in International Business

In proposing a change in the procedure for determining courses which can meet the requirement for the Minor in International Business, we have followed the suggestion in your memorandum of October 7, 1985 (copy attached), to Dr. Krum with one alteration. We believe it is desirable to have a relatively accurate listing of courses that meet the Group 2 requirement in the catalog and have therefore maintained the current catalog listing with appropriate additions. This change was approved by the faculty of the College of Business and Economics.

cc: Eric Brucker  
Saul Hoffman



THE UNIVERSITY OF DELAWARE

REQUIREMENTS FOR THE MINOR IN INTERNATIONAL BUSINESS

The minor in international business is designed to give increased understanding of the important international dimension of business to students with a major or minor in business administration or a major in accounting. The 18 credits required for the minor may also be used to meet other distribution requirements. Students meeting the following requirements will be awarded the minor. To qualify, a change of classification form must be filed in the office of the Dean of the College of Business and Economics upon completion of or enrollment in the last required course; this application must be filed no later than the end of the sixth week of student's final term. Students seeking the minor will not be given preference in registration for these courses.

Required courses for the minor are:

1. Nine credits with one course from three of the following four sets of courses:

- A. BU 307 International Business Management  
BU 391 Seminar in International Administration Management
- B. BU 392 Seminar in International Financial Management  
BU 408 ~~Seminar in Finance (International Finance)~~  
**415 Finance Seminar (International Finance)**
- C. BU 393 Seminar in International Marketing Management  
BU 475 International Marketing
- D. BU 341 Environment of Multinational Corporations\*  
BU 394 Seminar in International Operations Management  
EC 340 International Economic Relations†

2. Nine credits from the following courses (no more than one course can be taken in a department).

- ANT 101 Introduction to Social and Cultural Anthropology
- ANT 230 Peoples of the World
- COM 320 Analysis of Intercultural Communications
- EC 311 Economic Growth and Development Policy
- EC 340 International Economic Relations†
- EC 341 Environment of Multinational Corporations\*
- EC 443 International Monetary Economics
- PSC 240 Introduction to International Relations
- PSC 341 Environment of Multinational Corporations\*

⤴ A foreign language course at the 200 level or higher

**PSC 416 Transnational Relations and World Politics**

Other courses which emphasize current international issues or provide background for understanding other countries or cultures and which are included on a list maintained by the department may also be taken.

\* A student will receive credit for only one of these cross-listed courses

† EC 340 shall not be used to meet both Group 1 and Group 2 requirements



# Memorandum



October 7, 1985

TO: James R. Krum, Chairman  
Department of Business Administration

FROM: Robert F. Brown, Chairman  
Committee on Undergraduate Studies

*Robert F. Brown*

SUBJECT: Query of 9/17/85 about the International Business Minor

The Committee discussed your memo at its meeting today, and reached the following conclusions:

1. You should formally propose a change in the Minor requirements, that would consist of dropping the list of courses under part two of the statement of requirements, and making part two read instead: Nine credits to be taken from a list of courses recommended by the College ....  
(Fill in here some descriptive statement about the type of courses you have in mind: e.g., courses dealing with foreign cultures and languages, international economics, etc.) (No more than one course can be taken in a single department.)

This change would then be acted upon by this Committee, and by the Senate.

2. Set up, and revise periodically as you see fit, your own list of courses that your College finds suitable for this purpose. Changes in this list would not require approval by this Committee or by the Senate. But we would ask for a system in which the College maintains an official list, rather than one which leaves the matter up to the individual advisor's discretion.
3. Consult on a regular basis with units offering the courses on the list, and especially in cases where there are additions or deletions, so that those units will not be in for unwelcome surprises in planning for their enrollments.





# Memorandum

DATE: February 28, 1986



MEMO TO: Dr. Robert Brown, Chair  
Committee on Undergraduate Studies

FROM: John J. O'Neill, Chair  
Curriculum Committee, College of  
Physical Education, Athletics and Recreation

SUBJECT: Revision of B.S. in Recreation and Park Administration

As a result of an in-depth review of the B.S. in Recreation and Park Administration curriculum conducted in the Spring of 1985 and in order to adjust the curriculum to meet the revised accreditation criteria of the Accreditation Board of the National Recreation and Park Association, the following modifications are proposed.

General Studies Area: Reduce requirement in Area D (Mathematics, Natural and Biological Science from 15 credits to 12 credits).

Rational: Students will also be required to complete 9 credits in the Professional Studies Core from the Departments of Agricultural Engineering and or Plant Science.

## Professional Studies Core:

### Course Additions:

- Rec 201 - Practicum in Recreation and Parks  
Rational: Provide students with an opportunity to gain supervised firsthand field experience in approved leisure service agencies.
- PE 415 - Personal Computer in Health, Physical Education and Recreation  
Rational: Provide students with a working knowledge of personal computers.
- Rec 341 - Outdoor Recreation  
Rational: Provide students with an overview of the field of Outdoor Recreation with special attention toward the leisure opportunities and the environmental impact of recreational use of natural areas. Addresses new accreditation criteria.
- To formalize three option areas within the Professional Studies Core which to this point have been addressed through the advisement process.



- Parks Option: As described in attachment A.
- Fitness Management Option: As described in attachment A.
- Programming Leadership Option: Completion of PE 121 Water Safety Instructor, 2 credits; Skills & Techniques, 2 credits; plus a student developed and department approved 15 credit hour block in an area defined as a sub-discipline of recreation, e.g. art, theatre, aquatics, sports and athletics, etc.

Course Deletions:

- PE 212 Elementary Activities for Children - course no longer offered.
- Rec 237 Concepts in Camping and Outdoor Education - replaced by Rec 341 Outdoor Recreation.
- ART 229 Art Experiences for Teachers - course no longer offered.
- Rec 451 Aquatic Management - changed to an elective offering, replaced by PE 415 Personal Computers in Health, Physical Education and Recreation.
- PE 220 Anatomy/Physiology - required only of students in the Fitness Management Option.
- Skills and Techniques - required only of students in the Programming/Leadership Option.

Elective Area: Reduced from 18 to 13 credits in order to accommodate option areas and to maintain total credit requirement for the degree at 128 credits.

Attachment A: Curriculum Description

Bachelor of Science in  
Recreation & Park Administration

General Studies:

Credit Hours: 39

Area A - Communication Skills (12 hours) E110 must be included. The remaining hours may be selected from the Departments of English (except Literature), Speech/Communication or Languages and Literature (except Literature).

Area B - Humanities and Fine Arts (6 hours)

Six hours selected from the Departments of Art, Art History, English (Literature), Languages and Literature (Literature), Music, Philosophy and Theater. In addition, specific courses in the Department of Textiles, Design and Consumer Economics.

Area C - Social Sciences (9 hours) Nine hours from at least two departments.

This area includes courses from the Departments of Anthropology (except physical), Black Studies, Criminal Justice, Economics, History, Political Science, Psychology and Sociology and Women's Studies. In addition, courses from the College of Human Resources in Individual and Family Studies may be elected.

Area D - Mathematics, Natural & Biological Sciences (12 hours) Twelve hours

from at least two departments. Three credits must be selected from Computer Science, Mathematics or Statistics. Courses may be selected from the Departments of Astronomy, Anthropology (physical), Biology, Chemistry, Engineering, Entomology, Food Science & Human Nutrition, Geography (physical and meteorology), Geology, Marine Studies, Mathematics (except M251 & M252), Health Sciences (natural science area), Physics, Physical Science, Plant Science, Psychology (physiological), Statistics and Computer Science.

Areas A, B, C, and D must total 39 credits.

Professional Studies Core:

Credit Hours: 57

Rec 105	Foundation to Recreation & Leisure Studies	3
Rec 201	Practicum in Recreation & Parks	3
AEC 201	Records & Accounts	3
Rec 210	Community Recreation	3
PE 415	Personal Computers in Phys. Ed./Recreation	3
G 240	Environment & Behavior	3
Rec 270	Recreation Leadership	3
Rec 310	First Aid & Emergency Care	3
Rec 341	Outdoor Recreation	3
PE 342	Adaptive Physical Education/Recreation	3
Rec 349	Recreation Programming	3
Rec 401	Internship in Recreation & Parks	9
Rec 404	Organization & Administration of Recreation	3
Rec 450	Facility & Park Management	3

Nine (9) hours from the following: AGE 103, 105, PLS 105\*, 133, 211, 212, 213\* (\*may not be chosen in this area by students in Parks option) One of the following three (3) options:

	<u>Credit</u>	<u>Hours:</u>
Parks Option		18
Fitness Management Option		19
Programming/Leadership Option		19
<u>Electives:</u>		13-14
TOTAL CREDIT HOURS FOR DEGREE		128

Option Areas: Student must choose one of the three options.

Parks Option: (must select 18 credit hours from courses listed below)

	<u>Credit</u>	<u>Hours:</u>
AGE 104 Farm Mechanics	4	18
PLS 105 Forestry	3	
PLS 213 Turf Management	3	
G 235 Conservation of Natural Resources	3	
AGE 307 Building Construction/Cost Estimating	3	
*PLS 331 Landscape Construction I	4	
*PLS 332 Basic Landscape Design I	4	

\*Prerequisite PLS 133

Fitness Management Option:

PE 220 Anatomy & Physiology	3	19
Rec 301 Practicum in Fitness Management	3	
PE 324 Measurement and Evaluation	3	
PE 420 Functional Human Anatomy or	3	
PE 305 First Aid and Athletic Injuries	3	
PE 426 Biomechanics	3	
PE 430 Physiology of Activity	4	

Programming/Leadership Option:

Skills/Techniques (PE 140's, 240's and 250's)	3	19
Suggested (Area) Electives	16	



# Memorandum

DATE: December 4, 1985

To: Ralph Barwick, Chair

From: J. Hough-Goldstein, Chair *JHG*  
Courses and Curriculum Committee, Department of Entomology and  
Applied Ecology

Re: Revision of existing course requirements for the Entomology and  
Entomology/Plant Pathology major

As a result of extensive discussions by the entire Entomology and Applied Ecology faculty, we have decided to change our two introductory courses (ENT 205 and ENT 305) to reduce overlap in the material that they cover. If approved by the Faculty Senate, ENT 305 will be changed to a laboratory - only course (2 2½ hour laboratories/week, for 2 credits), with students required to take the ENT 205 3-credit lecture course as either a prerequisite or a corequisite to the laboratory course. The attached curriculum revisions reflect this change, with Entomology and Entomology-Plant Pathology (EPP) majors now required to take both ENT 205 and ENT 305, rather than just ENT 305. It should be noted that this change has been endorsed by the Dept. of Plant Science chair and faculty in Plant Pathology, for EPP.

Other changes noted on the curriculum sheets are as follows:

- ENT, p. 2. Delete Computer Science requirement, since this is now redundant with the College requirement (p. 1).
- EPP, p. 2. Delete Mathematics requirement (also redundant with College requirement).

JHG/ar





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

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<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
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E 110 Critical Reading and Writing	3	X			
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COLLEGE REQUIREMENTS
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Mathematics and Computer Sciences

M xxx Mathematics course (M 115 or higher level)	3	X			
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xx xxx\* A Computer Science course chosen From  
 the following:

CIS 105 General Computer Science	3		X	X	X
AGE 101 Introduction to Agricultural Engineering Technology	3				
AEC 630 Computer Use in Agriculture and Biology	3				
xx xxx or the equivalent	3				

Agricultural and Biological Sciences

9-12	X	X		
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Minimum of one course outside the student's major  
 in three of the following areas: Agricultural  
 and Food Economics, Agricultural Engineering,  
 Animal Science, Entomology and Applied Ecology,  
 Plant Science or Biology.

Literature and Arts

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

Social Sciences and Humanities

9		X		
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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

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

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

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<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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**MAJOR REQUIREMENTS**

Within or External to the College

C 101 General Chemistry	4	X			
C 102 General Chemistry	4	X			
B 207 Introductory Biology I	4		X		
B 208 Introductory Biology II	4		X		
B 302 General Ecology	3			X	
AG 211 Literature of the Agricultural and Life Sciences	1	X			

CIS 105 General Computer Science

3

X

<sup>or</sup>  
 AGE 101 Introduction to Agricultural Engineering  
 Technology

3

X

Nine credits from the following:

9

X

X

B xxx Biology courses at/or above the 300-level.

or

PLS xxx The following PLS courses:

PLS 151 Introduction to Crop Science	3				
PLS 303 Introductory Plant Pathology	4				
PLS 204 Introduction to Soil Science	4				
PLS 355 Weed Biology and Control	2				
PLS 300 Principles of Animal and Plant Genetics	3				
PLS 402 Plant Taxonomy	3				

Within the Department

ENT 205 Elements of Entomology	3	X			
ENT 305 <del>Concepts in</del> Entomology Laboratory	#2		X		
ENT 405 Insect Structure and Function	4			X	
ENT 406 Insect Identification - Taxonomy	3			X	X
ENT 408 Field Taxonomy	1				
ENT 465 Seminar	1				
ENT xxx Additional Entomology courses	10		X	X	X

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

<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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ELECTIVES
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Electives27-34  
20

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

\*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.

COLLEGE: AGRICULTURAL SCIENCES  
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY AND PLANT SCIENCE  
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE  
 MAJOR: ENTOMOLOGY/PLANT PATHOLOGY (EPP)

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<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			
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COLLEGE REQUIREMENTS

Mathematics and Computer Sciences

M xxx Mathematics course (M 115 or higher level)	3	X			
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xx xxx A Computer Science course chosen from the following:	3		X	X	X
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CIS 105 General Computer Science	3				
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AGE 101 Introduction to Agricultural Engineering Technology	3				
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AEC 630 Computer Use in Agriculture and Biology	3				
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xx xxx or the equivalent	3				
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Agricultural and Biological Sciences

9-12	X	X			
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Minimum of one course in three of the following areas: Agricultural and Food Economics, Agricultural Engineering, Animal Science, Entomology and Applied Ecology, Plant Science or Biology.

Literature and Arts

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

Social Sciences and Humanities

9		X			
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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

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

COLLEGE: AGRICULTURAL SCIENCES  
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY AND PLANT SCIENCE  
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE  
 MAJOR: ENTOMOLOGY/PLANT PATHOLOGY (EPP)

<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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**MAJOR REQUIREMENTS**

External to the College

B 207	Introductory Biology I	4			X
B 208	Introductory Biology II	4			X
C 101	General Chemistry	4		X	
or					
C 103	General Chemistry	4			
C 102	General Chemistry	4		X	
or					
C 104	General Chemistry	4			
<del>M 115</del>	<del>Pre-Calculus</del>	<del>3</del>	<del>X</del>		
or					
<del>M 221</del>	<del>Calculus I</del>	<del>3</del>			

Within the College

AG 211	Literature of the Agricultural and Life Sciences	1			X
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Within the Departments

ENT 205	Elements of Entomology	3	X		
ENT 305	<del>Concepts in Entomology Laboratory</del>	<del>2</del>		X	*
ENT 406	Insect Identification - Taxonomy	3			X
ENT 408	Field Taxonomy	1			X
ENT 411	Economic Entomology	3			X
ENT 465	Seminar	1			X
PLS 101	Botany I	4	X		
PLS 201	Botany II	4	X	*	
PLS 303	Introductory Plant Pathology	4			X
PLS 402	Plant Taxonomy	3			X
PLS 411	Diagnostic Plant Pathology	2			X
xx xxx	<del>Eighteen</del> Credits from Entomology and Applied Ecology and/or Plant Science.	<del>18</del> 17			X
Five credits from among the following:		5			X
PLS 412	Diagnostic Plant Pathology Laboratory	1-4			
PLS 413	Principles of Plant Disease Control	3			
PLS 429	Introductory Mycology	4			

COLLEGE: AGRICULTURAL SCIENCES  
 DEPARTMENT: ENTOMOLOGY AND APPLIED ECOLOGY AND PLANT SCIENCE  
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE  
 MAJOR: ENTOMOLOGY/PLANT PATHOLOGY (EPP)

Page 3

<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>Recommended Relevant Courses</u>					
ENT 613 Integrated Pest Management	3				
PLS 355 Weed Biology and Control	2				
PLS 356 Weed Biology and Control Laboratory	1				

ELECTIVES
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Electives  
 Courses in Agriculture, Biology and the Physical Sciences are recommended. 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.)

~~8-11~~  
 11-17

X X

CREDITS TO TOTAL A MINIMUM OF

124



UNIVERSITY OF DELAWARE INTER-DEPARTMENTAL  
DEPARTMENT OF ENTOMOLOGY/APPLIED ECOLOGY



# Memorandum

DATE: February 24, 1986

To: Ralph Barwick  
College of Ag. Courses and Curriculum Committee

From: J. Hough-Goldstein *J. Hough-Goldstein*  
Entomology and Applied Ecology

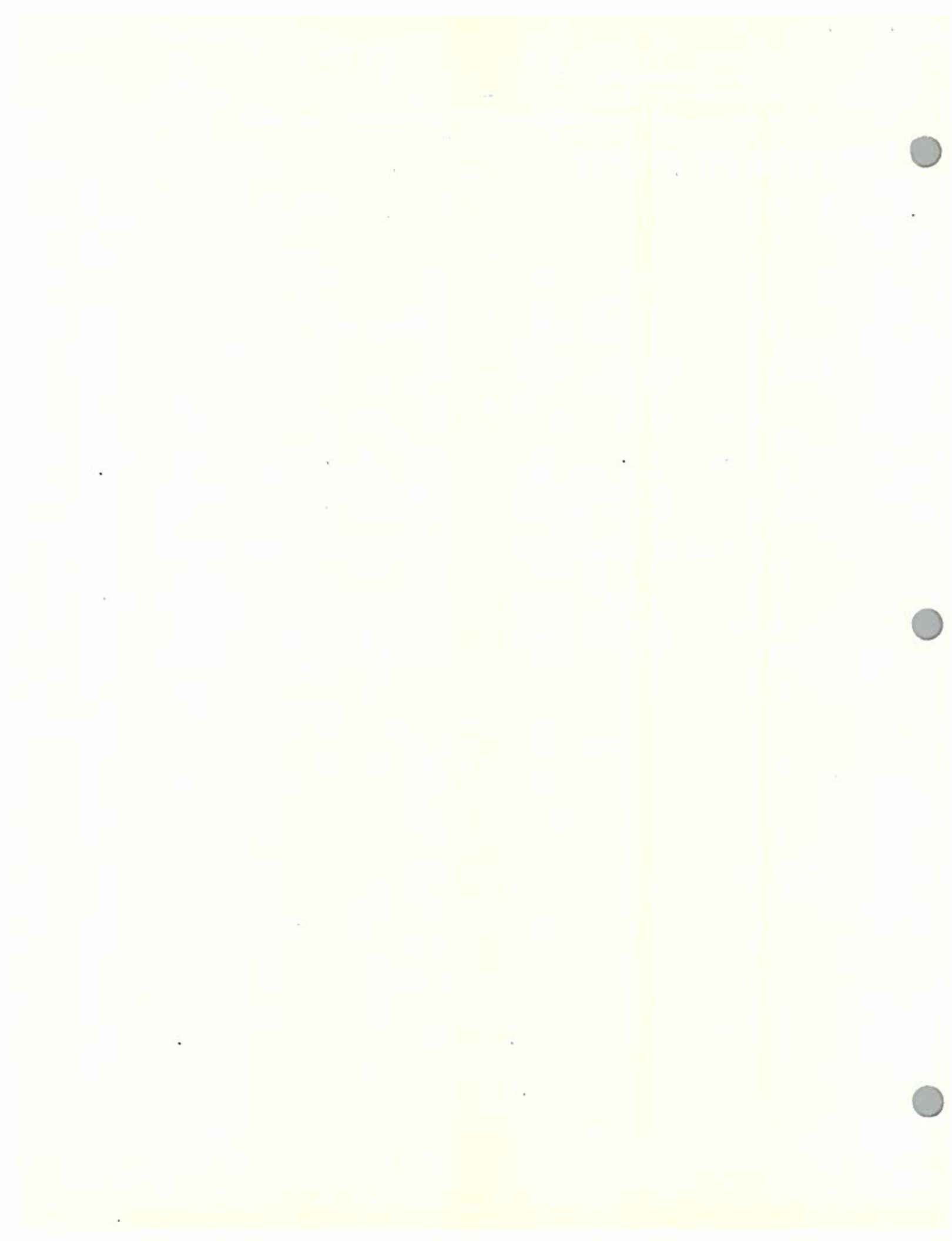
Re: Entomology minor

Concomitant with the proposed changes in the Entomology curriculum and in ENT 205 and ENT 305, requirements for the Entomology Minor should read as follows (additions and alterations are underlined):

The minor in entomology requires 15 credits in entomology including the following: ENT 205, 305, 406, 408 and 465.

A student may emphasize entomology or ecology/wildlife conservation by proper choice of courses for the remaining 5 credits. Appropriate for entomology are ENT 214, 224, 405, ~~407~~, 607, 609, 614, 619 and 626; for ecology/wildlife conservation, ENT 201, 614, 615, 617, 618 and 625 are recommended.

JHG/ar





# University of Delaware

COLLEGE OF AGRICULTURAL SCIENCES  
DEPARTMENT OF AGRICULTURAL ENGINEERING  
TOWNSEND HALL  
NEWARK, DELAWARE 19717-1303

(302) 451-2468

February 24, 1986

MEMORANDUM TO: To Whom It May Concern

FROM: Norm Collins, Chairman *Norm*  
Department of Agricultural Engineering

RE: Changes in Requirements for Major in Agricultural Engineering  
Technology

## Change #1

### Mathematics and Computer Science

All AET majors are enrolled in AGE 101 Introduction to Agricultural Engineering Technology as freshman. Therefore the "X" should be in the "Typical Freshman Completes" column rather than in the sophomore column.

## Change #2

### Literature and Arts

An asterisk should be added so that footnote will apply. Over the last five years, AET students have been advised ("forced, almost") to take the English and Communications courses that are being proposed as major requirements - external to the college.

## Change #3

12 credit hours in Mathematics and Statistics.

The proposed change is being made as a result of a change in the criteria published by the Accreditation Board for Engineering and Technology (ABET). Because our program will be reviewed by ABET during the 87-88 academic year, the proposed change is being requested now to insure our compliance with ABET criteria.

Change #4

Six credit hours of Social Science and Humanities.

The proposed change is being made to insure continued compliance with ABET criteria. It increases the current AET requirement by three hours. In that most students already take 15 credit hours in the Social Sciences and Humanities, the proposed change formalizes past practice.

Change #5 and #6

A second Writing Course (#5) - Oral Communications (#6).

Again, the proposed change is in response to the last criteria published by ABET. This change also formalizes past practice in that over 90 percent of the AET majors take E312 (old E215) and COM350. The listing of several courses will allow the student greater flexibility in scheduling. Because of the high demand and scheduling conflicts, the proposed option in communications was discussed with Dr. Borden (Chairman, Department of Communications).

The proposed changes do not change the number of hours required for graduation.

NEC/nhc

COLLEGE: AGRICULTURAL SCIENCES  
 DEPARTMENT: AGRICULTURAL ENGINEERING  
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE  
 MAJOR: AGRICULTURAL ENGINEERING TECHNOLOGY (AET)

<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			
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COLLEGE REQUIREMENTS

Mathematics and Computer Sciences\*

M xxx Mathematics course	3-4	X			
xx xxx A Computer Science course chosen from the following:	3	(X)		X	X
CIS 105 General Computer Science	3				
AGE 101 Introduction to Agricultural Engineering Technology	3				
AEC 630 Computer Use in Agriculture and Biology	3				
xx xxx or the equivalent	3				

CHANGE #1

Agricultural and Biological Sciences

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

10-12	X		X	
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Literature and Arts \*

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

CHANGE #2

6			X	
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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	
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Physical Sciences\*

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

8	X			
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# SUGGESTED CURRICULUM

## CREDITS

TYPICAL  
FRESHMAN  
COMPLETES

TYPICAL  
SOPHOMORE  
COMPLETES

TYPICAL  
JUNIOR  
COMPLETES

TYPICAL  
SENIOR  
COMPLETES

## MAJOR REQUIREMENTS

### External to the College

C 103 General Chemistry  
C 104 General Chemistry  
PS 201 General Physics  
or  
PS 207 General Physics  
PS 202 General Physics  
or  
PS 208 General Physics

4  
4  
4  
4  
4

X  
X  
X  
X

XX XXX A minimum of twelve credit hours in mathematics and statistics. Specific requirements are:  
M 221 Calculus I  
or  
M 241 Analytic Geometry and Calculus A  
M 222 Calculus II  
or  
M 243 Analytic Geometry and Calculus B

CHANGE  
#3

X

X

XX XXX Six credit hours chosen from Anthropology, Art, Art History, Black Studies, Criminal Justice, Economics, Education, Foreign Language, Geography, History, Music, Philosophy, Political Science, Sociology, Theatre or Women's Studies.

CHANGE  
#4

X

X

XX XXX A course in Written Communications chosen from the following:

X 301 Problems in Composition  
X 302 Advanced Composition  
X 312 Written Communications in Business  
X 410 Technical Writing

CHANGE  
#5

X

XX XXX A course dealing with oral communications chosen from the following:

COM200 Introduction to Human Communication Processes  
COM255 Fundamentals of Communication  
COM330 Public Speaking  
COM356 Small Group Communication

CHANGE  
#6

X

### Within the College

PLS 204 Introduction to Soil Science

4

X

### Within the Department

AGE 101 Introduction to Agricultural Engineering Technology  
AGE 205 Power and Machinery Management I  
AGE 206 Power and Machinery Management II  
AGE 208 Agricultural Hydraulic Systems  
AGE 323 Soil and Water Conservation  
AGE 304 Electricity in Agriculture  
AGE 308 Agricultural Waste Management Systems  
AGE 365 Agricultural Engineering Seminar  
AGE 401 Engineering Aspects of Agricultural Processes  
AGE 404 Farm Structures

3  
4  
4  
4  
3  
4  
3  
1  
4  
4

X  
X

X  
X

X  
X  
X

X  
X



COLLEGE: AGRICULTURAL SCIENCES  
 DEPARTMENT: AGRICULTURAL ENGINEERING  
 DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE  
 MAJOR: AGRICULTURAL ENGINEERING TECHNOLOGY (AET)

<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>
xx xxx A minimum of thirty credit hours in area of specialization that may be satisfied in part or in total by additional course work in the Agricultural Engineering Department or closely related subject matter, a double major within the College of Agricultural Sciences or relevant University approved minor.	30		X	X	X

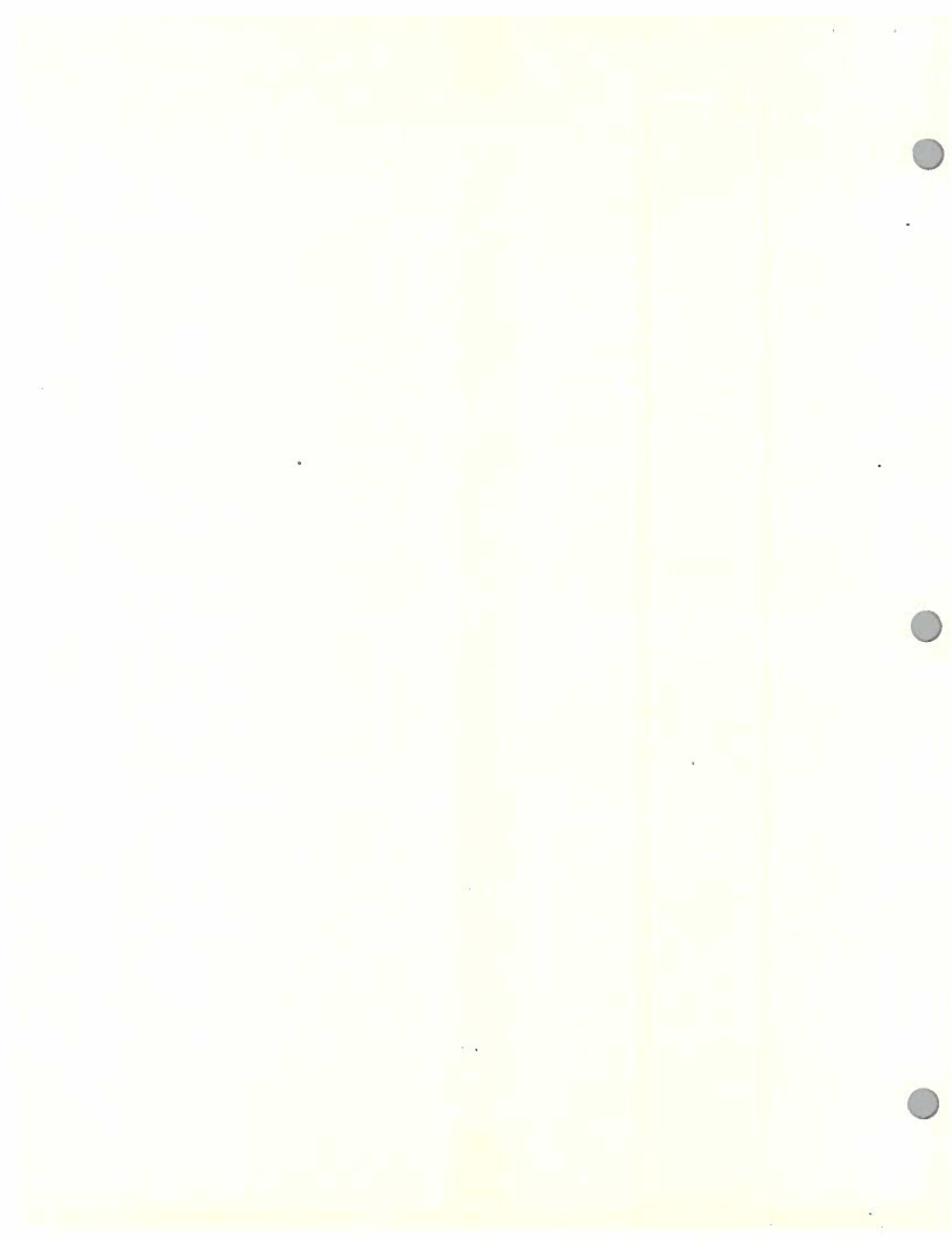
In order to graduate with a major in Agricultural Engineering Technology students must attain a 2.0 index in Agricultural Engineering Technology courses.

ELECTIVES
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<u>Electives</u>	8-12	X	X	X	X
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 130

\*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.



COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: DESIGN  
 CONCENTRATION: INTERIOR (DES/INTERIOR)

<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
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E 110 Critical Reading and Writing	3	X			
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MAJOR REQUIREMENTS
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External to the College

Humanities

xx xxx English Writing/Communication course	3				X
COM 255 Fundamentals of Communication	3		X		
ART 129 Design in Visual Arts	3	X			

Sciences

C 101 General Chemistry	4	X			
C 102 General Chemistry	4	X			
M xxx Mathematics course	3		X		
xx xxx Science course selected from: Physical Anthropology, Biology, Chemistry, Health and Life Sciences, Physical Sciences, Physics, Physiological Psychology, Plant Science 101 or 102, Entomology 205, Computer Science, Physical Geography, Geology, Mathematics, Statistics.	4		X		

Social Sciences

EC 151 Introduction to Microeconomics	3		X		
H xxx History course	3	X			
SOC xxx Sociology course	3		X		
PSY xxx Psychology course	3		X		
xx xxx Social Science course selected from: Cultural Anthropology, Black American Studies, Business Administration 309 or 321, Criminal Justice, Economics, Agricultural Economics 120, Economic and Social Geography, History, Plant Science 200, Political Science, Psychology, Sociology, Individual and Family Studies 401.	3				X

COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: DESIGN  
 CONCENTRATION: INTERIOR (DES/INTERIOR)

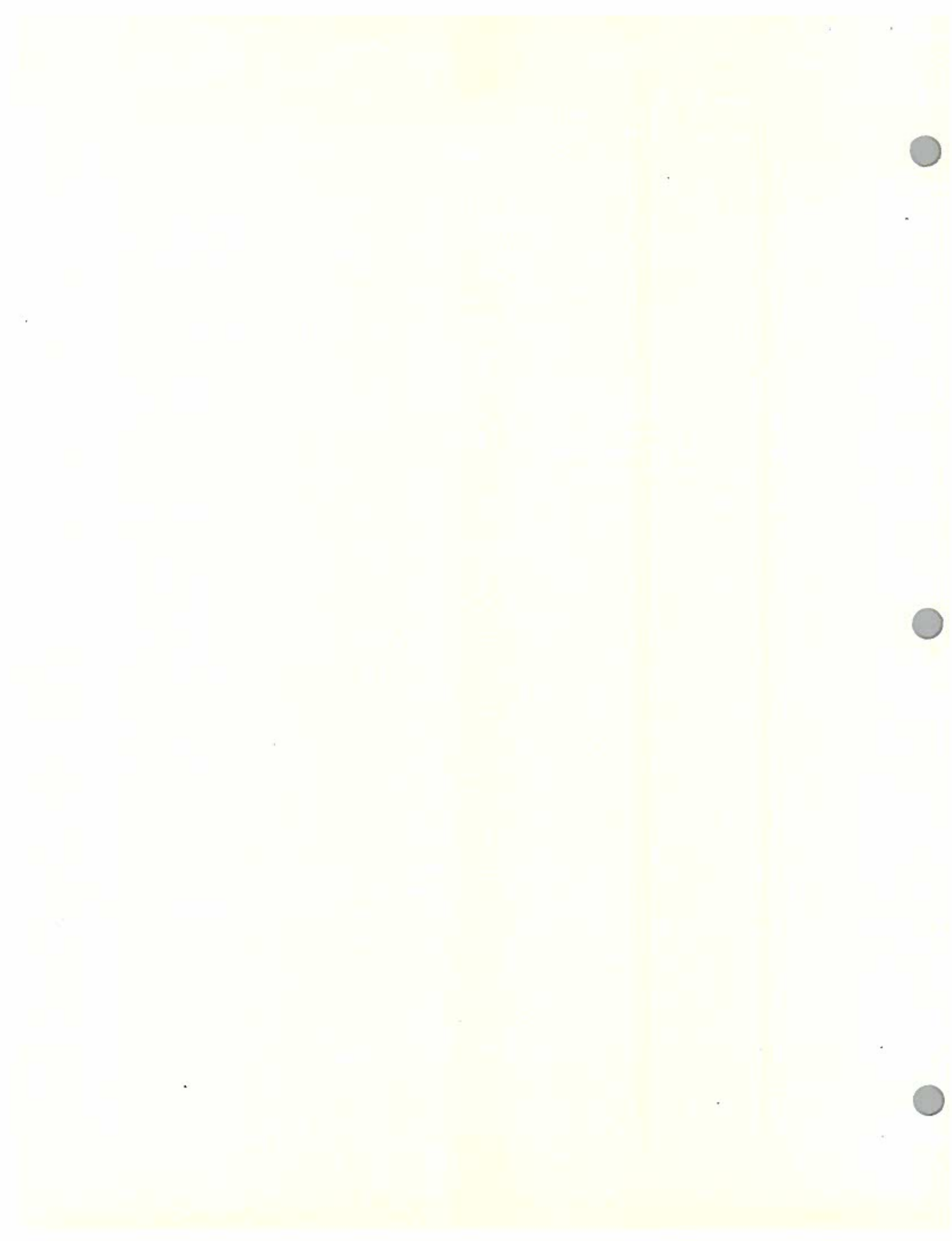
SUGGESTED CURRICULUM	CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
<u>Restricted Electives</u>	30				X
BU xxx Business course(s)	3-6				
and/or					
ACC xxx Accounting course(s)	3-6				
ART xxx Art course(s)					
or					
ARH xxx Art History course(s)					
or					
THE xxx Theatre course(s)	10-21				
or					
<del>PLS xxx Plant Science course(s)</del>	<del>3-6</del>				
<del>or</del>					
<del>TDC 451 Interior Design IV</del>	<del>3</del>				
TDC courses from the following: <del>2-22</del> <u>Within the College</u>					
FSN xxx FSN course	3	X			
IFS xxx IFS course	3			X	
<u>Within the Department</u>					
TDC 110 Introduction to Interior Design	3	X			
TDC 113 Textiles and Clothing in Contemporary Living	3	X			
TDC 225 Architectural Drawing	3		X		
<del>TDC 310 Housing</del>	<del>3</del>			<del>X</del>	
TDC 234 Interior Design I	3		X		
TDC 334 Interior Design II	3		X		
TDC 434 Interior Design III	3			X	
TDC 410 Environmental Products I	3				X
TDC 425 Textile Performance	3				X
TDC xxx TDC courses	6			X	
TDC 465 Seminar	3 +			X	

TDC 325 - Presentation Techniques 3  
 TDC 330 - Design Internship 4  
~~TDC 367 Constr. and Detail Drawing 3~~  
~~TDC 367 Intro. to Mechanical Systems 3~~  
 TDC 450 - The Historic Interior 3  
 TDC 451 - Contemporary Furnishings 3  
 TDC 464 - Interior Design IV 3

COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: DESIGN  
 CONCENTRATION: INTERIOR (DES/INTERIOR)

<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>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">ELECTIVES</div>					
<u>Electives</u> May include Military Science, Music or Physical Education. (Only two credits of activity type Physical Education and four credits of Music organization credits may be counted toward the degree and four credits of 100- and 200-level courses in Military Science/Air Force.)	18 *		X	X	X
CREDITS TO TOTAL A MINIMUM OF	129				

\*This figure reflects a computational error in the curriculum approval checklist. It should have been 17 semester hours. The proposed curriculum checklist should reflect 18 hours of electives, the increased number of required electives.







# University of Delaware

DEPARTMENT OF ART  
NEWARK, DELAWARE 19716

(302) 451-2244

**The following are justifications for changes to the Department of Art, Visual Communications Curriculum to commence in the Fall of 1986.**

**A few notes to begin with.**

The course numbering in the new curriculum is intended to make sense.

Courses where middle number is 0 are visual communications courses

Courses where middle number is 1 are commercial photography courses

Courses ending with 0/1 are general problem-solving process courses

2/3 are graphic design related courses

4/5 are advertising design related courses

6/7 are other general but non process courses

8/9 are practicum/internship related

The courses represented here allow for sufficient flexibility for any future growth.

The numbers for three of the courses that are being deleted are being used for new course requests. Bernice Weinacht of the Registration Office and Cindy Waksmonski of the Art and Science Advisement Office have been notified of this request and both have agreed that there is no problem with such.

Our program is very structured and requires six consecutive semesters of regular semesters to complete. The courses are taught only once a year with each course leading to the next. Sophomores take sophomore level courses, juniors take junior level and so on. Students are taking all of the sophomore, junior or senior classes for the semester. All courses in one year are prerequisites for the next except in special occurrences where faculty permission may override the prerequisite requirements (most notably an upper level or graduate student taking one of the beginning or intermediate level courses). Enrollment is accepted only after a review of the student's work, interview and written statement. Enrollment is limited to 40 sophomores and 20 juniors.

## SUMMARY

### **Present curriculum**

#### **Sophomore Year**

Art 200: Visual Communications 1  
Art 201: Visual Communications 2  
Art 202: Production Techniques 1  
Art 203: Production Techniques 2  
Art 215: Commercial Photography 1  
Art 216: Commercial Photography 2

Also: ART 110, 111,  
112, 113.

#### **Junior Year**

Art 300: Corporate Graphics  
Art 301: Environmental Graphics  
Art 316: Commercial Photography 3  
Art 415: Commercial Photography 4

ART credit total = 56

#### **Senior Year**

Art 400: Design for Art Studios  
Art 401: Design for Advertising Agencies  
Art 404: Publication Design  
Art 407: Portfolio Preparation

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### **Proposed curriculum**

#### **Sophomore Year**

Art 200: Visual Communications Process 1 (name change from above)  
Art 201: Visual Communications Process 2 (name change)  
Art 210: Visual Communications Photography 1 (name/number change)  
Art 211: Visual Communications Photography 2 (name/number change)

#### **Junior Year**

Art 302: Design for Art Studios 1  
Art 304: Design for Advertising Design 1  
Art 306: Visual Communications Comping  
Art 307: Visual Communications Writing  
Art 312: Graphic Design Photography  
Art 314: Advertising Design Photography

Also: ART 110, 111,  
112, 113.

ART credit total = 57

#### **Senior Year**

Art 400: Advanced Visual Communications Process  
Art 401: Portfolio Preparation  
Art 402: Design for Art Studios 2  
Art 404: Design for Advertising Agencies 2  
Art 408: Practicum

FREE ELECTIVE  
CREDITS DECREASE  
BY 1 CREDIT.

OLD

NEW

## **Basic changes between the past and proposed curriculum**

**Deleting Art 202/203: Production Techniques 1/2 in the sophomore year.** The content of these courses is no longer important in visual communications due to advances in the field (mainly computerized typesetting and paste-up computer systems). There is some need for some basic information contained in these courses, which can be easily covered other courses in a few class periods.

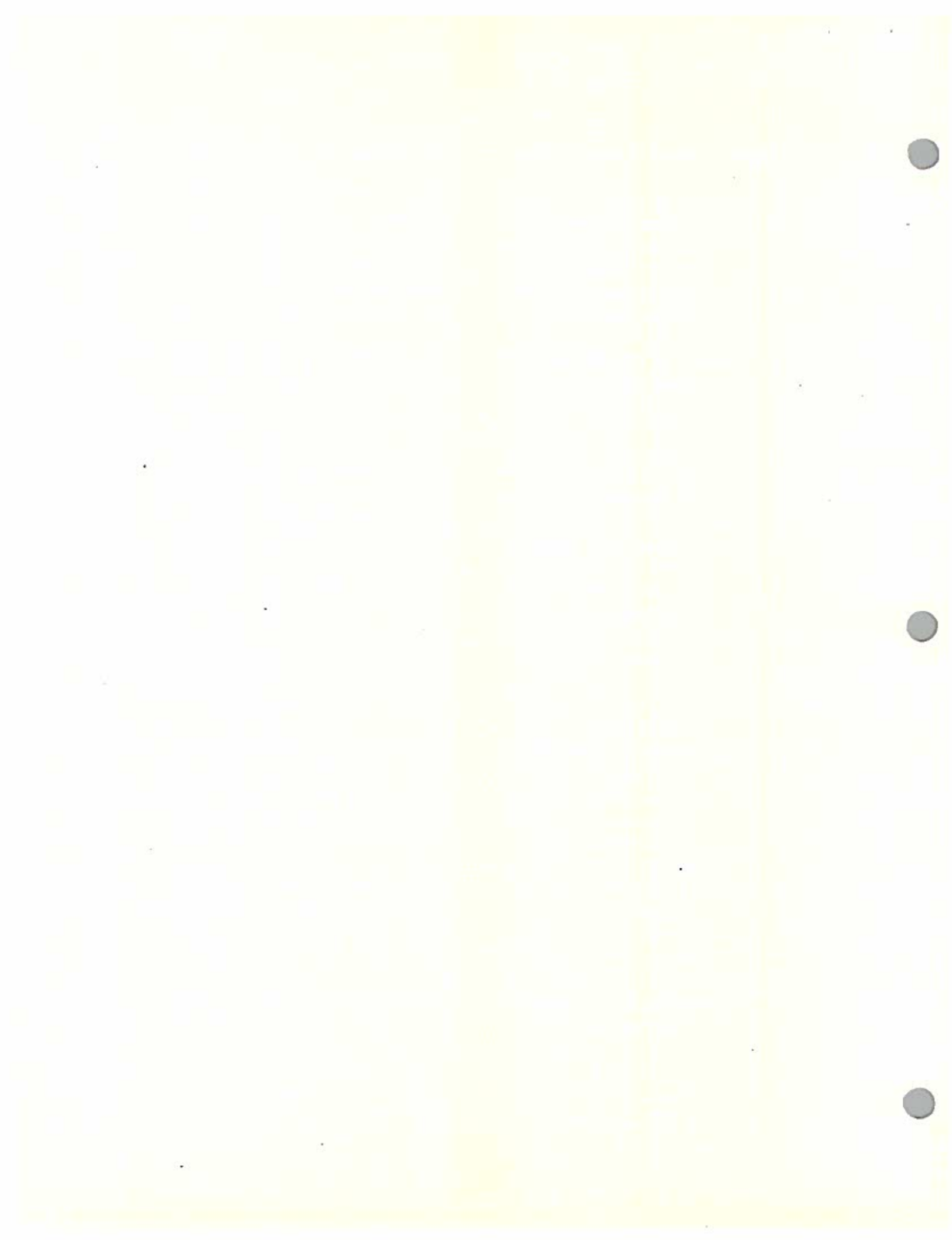
**Addition of two new courses in the junior year.** **Art 306: Visual Communications Comping** is a course to teach drawing skills which are not covered in other Art Department courses. Generally the VC drawings are quicker with less rendering skill required versus tighter renderings which are the rule in the regular drawing courses. **Art 307: Visual Communications Writing** is designed to fulfill the requirement for a second writing course by the University. This course will center around term paper type projects.

**Combining five courses into two sequences of two courses each.** Art 300: Corporate Graphics, Art 301: Environmental Graphics, Art 400: Design for Art Studios, Art 401: Design for Advertising Agencies and Art 404: Publication Design were combined and made into four courses -- Art 302/402: Design for Art Studios 1 & 2 and Art 304/404: Design for Advertising Agencies 1 & 2. This falls into line with student demand where approximately 50% of our students go into graphic design related fields and 50% go into advertising design related fields.

**Addition of Advanced Visual Communications Process.** The five courses above were combined into 4. To keep the number of courses in this sequence at five we are initiating Art 400: Advanced Visual Communications Process to allow for a process oriented upper level course to complement and refine information given the students in Art 200 & 201.

**Requiring Art 401: Practicum.** Presently approximately 80% of our students take at least one practicum (50% take at least 2). We have decided it is best to simply require the course as part of the curriculum. This would reduce the number of free elective hours by three to 30 total.

**Two additional courses which are not required courses.** Art 303: Book Design and Production and Art 305: Television Commercial Storyboarding are courses which we have offered three times each as special problems courses during Winter Session over the past 5 years. They are both popular and we would like to make them regular courses with set numbers when we offer them in the future.



COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: CONSUMER ECONOMICS  
 CONCENTRATION: COMMUNICATION (CC)

<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
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E 110 Critical Reading and Writing	3	X			
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MAJOR REQUIREMENTS
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External to the College

Humanities

E xxx English Writing courses	6		X	X	
COM 255 Fundamentals of Communication	3		X		
COM 245 Mass Communication and Culture	3		X		
COM 350 Public Speaking	3				X
COM xxx* Communication course	3				X
or					
E xxx* English course	3				
xx xxx Humanities course selected from: Art, Art History, Communication (except 320, 321), English, Languages, Literature, Music, Philosophy, Theatre.	3				X

Sciences

C 101 General Chemistry	4	X			
C 102 General Chemistry	4	X			
ST 201 Introduction to Statistics I	3			X	
xx xxx Science course selected from: Physical Anthropology, Biology, Chemistry, Health and Life Sciences, Physical Sciences, Physics, Physiological Psychology, Plant Science 101 or 102, Entomology 205, Computer Science, Physical Geography, Geology, Mathematics, Statistics.	4			X	
xx xxx Computing course elective	3			X	

Social Sciences

EC 151 Introduction to Microeconomics	3	X			
EC 152 Introduction to Macroeconomics	3	X			
PSY 201 General Psychology	3			X	
PSY 303 Introduction to Social Psychology	3				X

COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: CONSUMER ECONOMICS  
 CONCENTRATION: COMMUNICATION (CC)

<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>
H xxx History course	3	X			
or					
SOC xxx Sociology course	3				
PSC xxx Political Science course	3	X			
<u>Business</u>					
ACC 207 Accounting I	3		X		
BU 301 Introduction to Marketing	3			X	
BU 309 Management and Organizational Behavior	3			X	
ACC 352 Law and Social Issues in Business	3			X	
BU 473 Buyer Behavior	3				X

Within the College

IFS xxx IFS course	3	X			
FSN xxx FSN course	3	X			
xxx xxx Human Resources courses	12	X	X	X	X

Within the Department

TDC 200 Consumer Economics	3		X		
TDC 335 Consumer Financial Management	3			X	
TDC 342 Consumer Laws and Regulations	3		X		
TDC 440 Advanced Consumer Economics	3				X
TDC xxx Consumer Economics electives chosen from TDC 100, 235, 306, 310, 340, 435, 465 and other courses in Consumer Economics.	15	X	X	X	X

ELECTIVES

Electives

May include Military Science, Music or Physical Education. (Only two credits of activity type Physical Education and four credits of Music organization credits may be counted toward the degree and four credits of 100- and 200-level courses in Military Science/Air Force.)

CREDITS TO TOTAL A MINIMUM OF

129

\*An additional course in Communication or English is recommended.



COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: CONSUMER ECONOMICS  
 CONCENTRATION: BUSINESS (CB)

<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			
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MAJOR REQUIREMENTS

External to the College

Humanities

E xxx English Writing course	3		X		
COM 255 Fundamentals of Communication	3		X		
xx xxx Humanities course selected from: Art, Art History, Communication (except 320, 321), English, Languages, Literature, Music, Philosophy, Theatre.	3		X		

Sciences

C 101 General Chemistry	4	X			
C 102 General Chemistry	4	X			
ST 201* Introduction to Statistics I	3				X
xx xxx Computing course elective	3		X		
xx xxx Science course selected from: Physical Anthropology, Biology, Chemistry, Health and Life Sciences, Physical Sciences, Physics, Physiological Psychology, Plant Science 101 or 102, Entomology 205, Computer Science, Physical Geography, Geology, Mathematics, Statistics.	4		X		

Social Sciences

EC 151 Introduction to Microeconomics	3	X			
EC 152 Introduction to Macroeconomics	3	X			
PSY 201 General Psychology	3		X		
H xxx History course	3	X			
or					
SOC xxx Sociology course	3				
PSC xxx Political Science course	3				X

COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: TEXTILES, DESIGN AND CONSUMER ECONOMICS  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: CONSUMER ECONOMICS  
 CONCENTRATION: BUSINESS (CB)

<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>Business</u>					
ACC 207 Accounting I	3		X		
ACC 352 Law and Social Issues in Business	3		X		
BU 301 Introduction to Marketing	3			X	
BU 309 Management and Organizational Behavior	3			X	
BU 473 Buyer Behavior	3				X
EC 302 Money, Credit and Banking	3				X
BU xxx Business course(s)	9			X	X
and/or					
EC xxx Economics course(s)					
and/or					
ACC xxx Accounting course(s)					

Within the College

FSN xxx FSN course	3	X			
IFS xxx IFS course	3	X			
HR xxx HR courses	12	X	X	X	X

Within the Department

TDC 200 Consumer Economics	3		X		
TDC 335 Consumer Financial Management	3				X
TDC 342 Consumer Laws and Regulations	3		X		
TDC 440 Advanced Consumer Economics	3				X
TDC xxx Consumer Economics electives chosen from TDC 100, 235, 306, 310, 340, 435, 465 and other courses in Consumer Economics.	16/5	X	X	X	X

**ELECTIVES**

Electives

May include Military Science, Music or Physical Education. (Only two credits of activity type Physical Education and four credits of Music organization credits may be counted toward the degree and four credits of 100- and 200-level courses in Military Science/Air Force.)

CREDITS TO TOTAL A MINIMUM OF

129

\*Three additional credits in Statistics or Mathematics are recommended.

## CONSUMER ECONOMICS CURRICULUM REVISIONS

### Business Option

<u>OLD</u>		<u>NEW</u>	
Consumer Affairs electives	16 cr.	Consumer Affairs electives	15 cr.
Electives	11 cr.	Electives	12 cr.

### Communications Option

Consumer Affairs electives	16 cr.	Consumer Affairs electives	15 cr.
*Electives	11 cr.	Electives	9 cr.
(printing error, the correct number is eight credits)			

Rationale: This change is logistical. As most courses are three credits, changing the credit requirements to multiples of three will enable students to more easily complete the curriculum requirements.

\*The curriculum form was printed incorrectly. Although it shows 11 credits of electives, the true number is 8 (mathematically, eight is also correct). It is proposed that the number of electives increase from 8 to 9.





University  
of  
Delaware

DEPARTMENT OF MECHANICAL ENGINEERING  
SPENCER LABORATORY  
NEWARK, DELAWARE 19716

RECEIVED

(302) 451-2421

APR 9 1986

COLLEGE OF ENGINEERING  
DEAN'S OFFICE

RECEIVED

APR 10 1986

GRADUATE OFFICE

M E M O R A N D U M

TO: Richard B. Murray  
Graduate Studies

VIA: R. Byron Pipes, Dean  
College of Engineering *[Signature]*

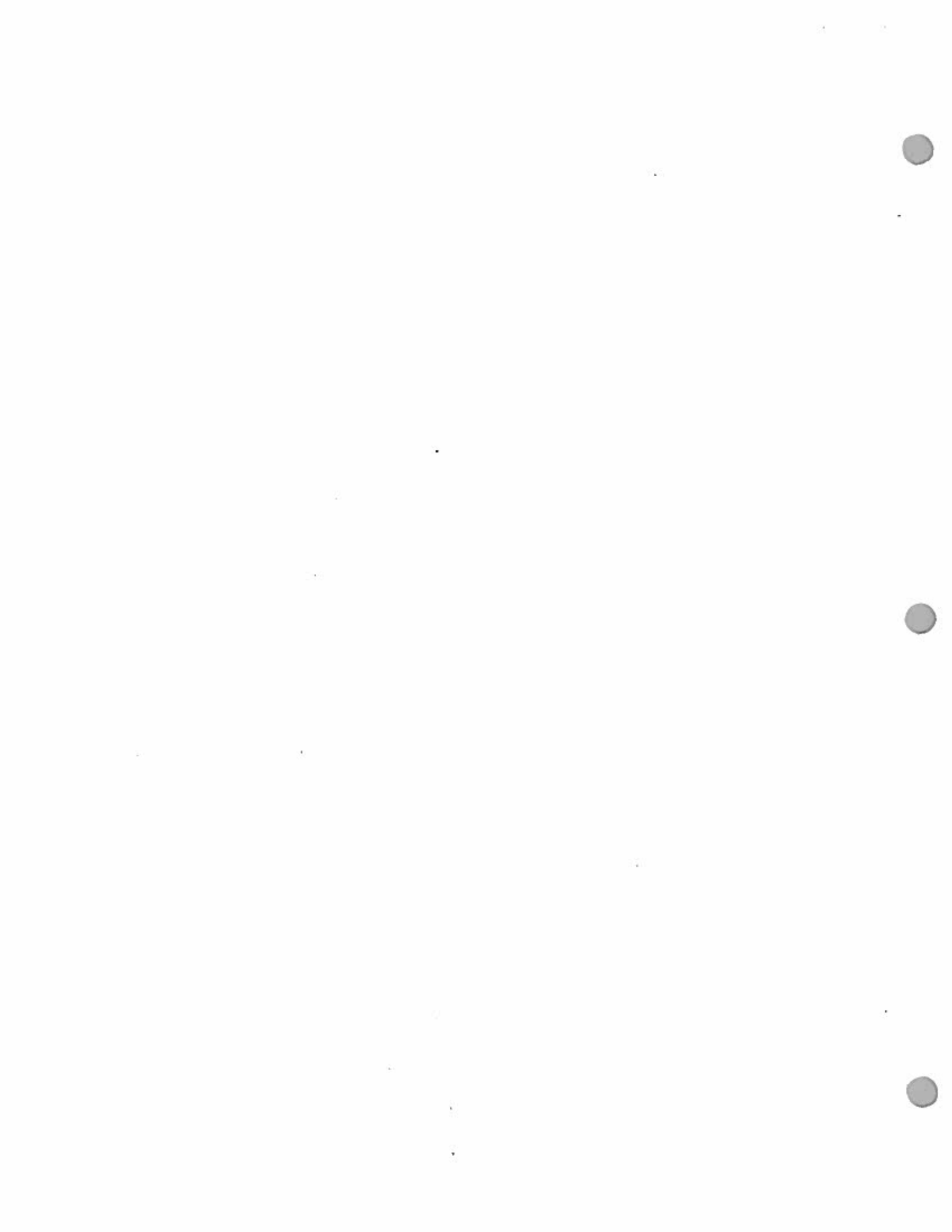
FROM: Efsthathios Michaelides, Acting Chairman  
Mechanical Engineering *[Signature]*

DATE: April 9, 1986

SUBJECT: Name Change for Graduate Degree and Graduate Major

In December 1985 the University Board of Trustees approved a name change for the Department of Mechanical and Aerospace Engineering, dropping the words "and Aerospace," in order to more closely follow ABET accreditation guidelines for the undergraduate program. To follow through on a complete name change, we request that the name of our graduate major be changed to "Mechanical Engineering" and that the name of the Master's degree be changed to "Masters of Mechanical Engineering" or "MME".

cc: Mechanical Engineering Faculty





# Memorandum

RECEIVED MAR 24 1986



March 20, 1986

To: Donald F. Crossan, Dean  
College of Agricultural Sciences

James E. Swasey, Coordinator  
Longwood Program

From: Jeffrey A. Raffel, Chair *JAR*  
Committee on Graduate Studies

Subject: Change in name of major

At its March 18, 1986 meeting the Committee on Graduate Studies unanimously voted to recommend that the title of the current Master of Science degree awarded to Fellows in the Longwood Program in Ornamental Horticulture be changed from M.S. in Ornamental Horticulture to M.S. in Public Horticulture Administration.

The Committee noted the similarity between the Public Administration degree and the Public Horticulture Administration name but accepted the reasoning that Public Horticulture is a recognized field.

111

cc: R. B. Murray  
Senate Office





University  
of  
Delaware

RECEIVED

JAN 17 1986

GRADUATE OFFICE

8

COLLEGE OF AGRICULTURAL SCIENCES  
OFFICE OF THE DEAN  
TOWNSEND HALL  
NEWARK, DELAWARE 19717-1303

(302) 451-2501 or 2502

16 January 1986

Memo to: Dr. Richard Murray  
Associate Provost for Graduate Studies  
From: D. F. Crossan *D. F. Crossan*  
Re: Change in Name of Degree

The Longwood/University M.S. degree Program was recently reviewed by the Office of Graduate Studies and by a committee commissioned by the Trustees of Longwood Gardens, Inc. Both reviews were favorable. A common recommendation from both review groups was to change the name of the degree to more accurately reflect the objectives of the Program and the training the Fellows receive. Therefore, I request that the title of the current Master of Science degree awarded to Fellows in the Longwood Program in Ornamental Horticulture be changed from M.S. in Ornamental Horticulture to M.S. in Public Horticulture Administration.

To assist the Graduate Committee in evaluating this request the following background is provided.

In the beginning the Program allowed for emphasis to be placed on either training for public horticultural service or on research ability with plants of economic and aesthetic importance. Students are admitted to the Program who have a horticultural background but who view their goal as eventually

APR 15 1986

being involved in some administrative function in public horticulture. Since the uniqueness of the Program revolved around the exposure of the Fellows to the operations of Longwood Gardens, horticultural research per se was not considered a Program priority. Furthermore, most land grant colleges have a strong commitment to research horticulture and many are directing that effort into areas of importance to the consumer. We did not deem it appropriate to duplicate those efforts, and indeed, the non-thesis option in the Program reflected this philosophy. An "internship"-type experience at Longwood Gardens was deemed a unique opportunity to learn about the operations of public and private botanic gardens, arboreta, and similar horticultural organizations.

In refining the Program over the years we have attempted to work with diverse University departments to establish courses tailored to the needs of the students.

Beginning in 1969 a proposal was developed for a Museum Studies Program at the University of Delaware. In this Program students of all the museum-related programs came together for courses of common interest. The Longwood Program was one of these. Museum problems and procedures are studied along with such topics as fundraising, administration, museum design, displays, etc.

The conduct of the Longwood Program has undergone an evolution over the past decade. The need for a higher level of exposure to the management of the departments at Longwood Gardens became quickly apparent and a program of formal and informal internships and meetings with supervisory and administrative personnel developed. The students now interact closely with specific personnel doing specific jobs and thereby gain a clear concept of the systems and sub-systems a public garden represents.

Thesis and non-thesis topics now represent areas such as educational programs in botanic gardens, horticultural monographs, floral display, and design, management and garden history, to mention a few. The benefits of a thesis or non-thesis topic in an area related to public garden management are many; the student becomes familiar with and known to the people working in the field, he or she may contribute something of worth to Longwood Gardens specifically or to their field of potential employment and a broader knowledge of the diversity among public gardens is gained through reading and travel.

We have a record of performance that enables us to adjust the Program to the needs of the field. There are in excess of 500 institutions and organizations that are potential users of our graduates. As noted we have progressively become more management oriented over the years. The object is to make the

students broadly aware of all operational areas in which gardens are involved, and to give them a degree of competence which will allow for effective management of the many special areas of horticulture, education, maintenance and business which are a part of any public garden.

Attached is a list of some of the graduates of the Program and their positions. Just recently those of us on the faculty closely involved with managing the Program agreed to require each student to complete six credits of formal management education by taking courses selected from a list of courses (see attached list). This requirement is in addition to the management training the students receive in the Museum Studies Certification Program (see attached list) but is within the 38 credit hours required for the degree. As noted before this latest change in the Program was suggested in the 1984 Reviews done for the Program (excerpts of the reviews are attached).

At this time those involved with the Program concur with the reviewers' recommendations and believe that because of the emphasis in botanic garden administration, a change in the name of the degree is necessary to better reflect the education and training received by the students. The intern experience and required course exposure suggest that the current degree, titled MS in Ornamental Horticulture is no longer appropriate. We recommend the degree title be changed to MS in Public Horti-

Page 5 - Dr. Richard Murray

culture Administration and ask the Senate Committee on Graduate Studies to consider this request.

cc: Provost Leon Campbell  
Dr. James Swasey

The minor in Food Science provides students in other degree programs with an opportunity to acquaint themselves with basic food science technology. Completion of the minor will provide the student with a basic understanding of this complex technology which includes sciences as diverse as microbiology and engineering. Successful completion of mathematics courses is required prior to taking food science courses for the minor.

#### MINOR IN FOOD SCIENCE - CURRICULUM ADDITION

The minor is awarded only to students who have applied and been admitted to the program.

#### External to the College

M221/241 Analytic Geometry and Calculus A (4) and  
M222/242 Analytic Geometry and Calculus B (4)  
(M241 and 242 recommended)

The minor in Food Science requires a minimum of 20 Food Science credits.

#### Within the Department

##### Required Courses

FSN439 Food Microbiology<sup>1</sup> (4)  
FSN415 Food Process Eng. Tech I<sup>2</sup> (4)  
FSN428 Food Chemistry<sup>3</sup> (4)  
FSN409 Food Processing I (4)

Select one (1) of

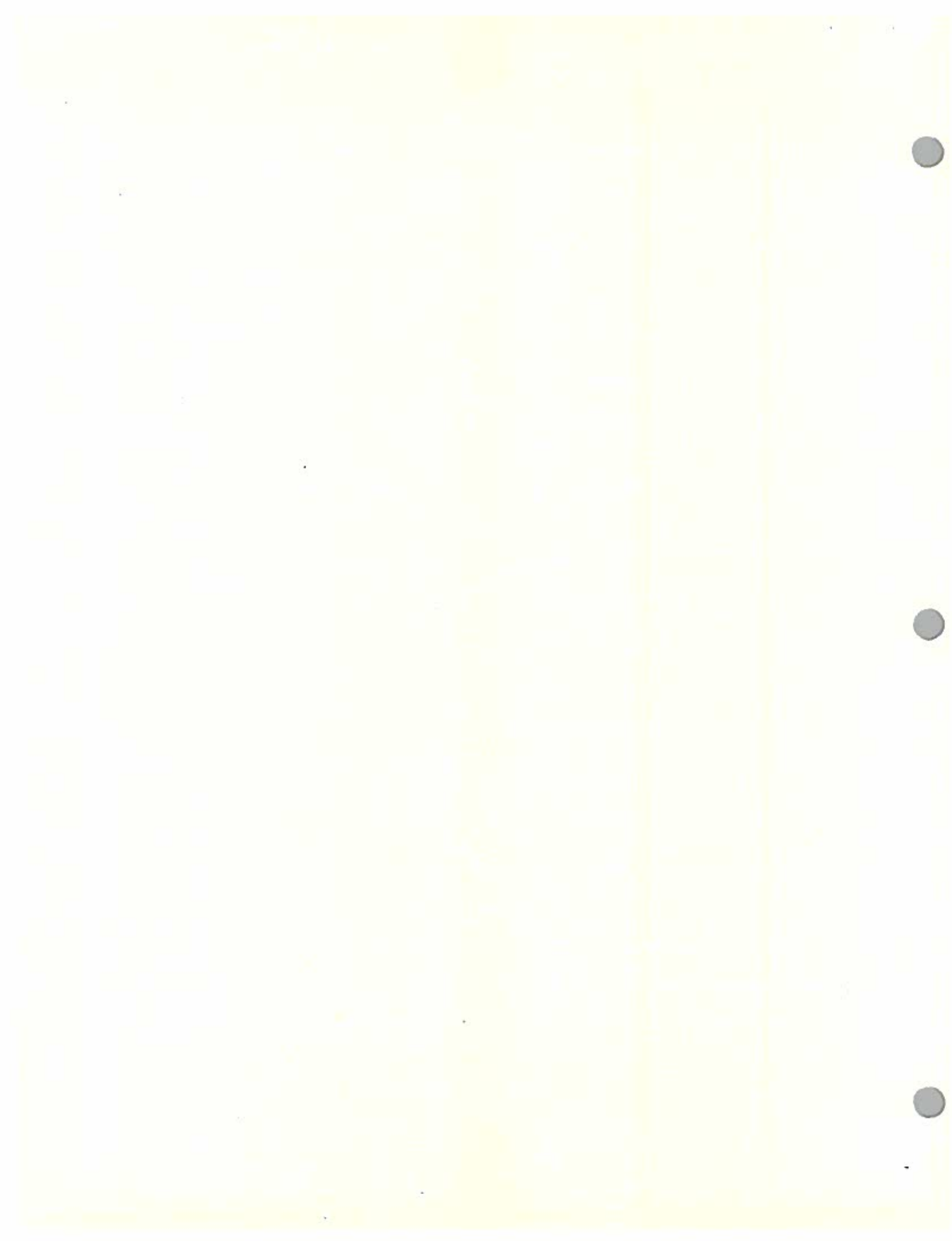
FSN416 Food Process Eng. Tech II (4)  
FSN429 Food Analysis (4)  
FSN449 Fermentation Technology (4)  
FSN410 Food Processing II (4)

##### Required Prerequisites for FS Courses

- <sup>1</sup> B371
- <sup>2</sup> M222 and PS201
- <sup>3</sup> C214, C321

Notes: Since all of the FS courses above apply to the Food Science major as well as the minor, students will retain all of these credits if they switch to the major during the course of their degree program, as long as a grade of C has been obtained in the courses. A C grade or higher is required in all FS courses for the minor in Food Science. Mechanical and Chemical Engineering students should consult with FS faculty for alternatives to FS415 and FS416.





UNIVERSITY OF DELAWARE INTER-DEPARTMENTAL

*Memorandum*

January 2, 1986

TO: Educational Affairs Committee

FROM: Thomas H. Pauly, Director  
American Studies Program *Thomas H. Pauly*

PURPOSE: Establishment of a minor in American Studies

## EXPLANATION OF THE MINOR

American Studies has been experiencing a slow, but relentless loss of majors for the past ten years. It currently has fifteen majors and is now approaching the point where the viability of the program is jeopardized. During the past two years of my directorship, I have been trying 1) to revise the program's course offerings so as to accord them with current cross listing policies, 2) to develop courses for our career conscious undergraduates that would give them unique preparation for jobs at museums and public service sites, and 3) to direct the program's introductory courses more at freshmen with undeclared majors. But so far I have been unable to reverse the decline in majors.

By way of complement to the proposed revision in the credits required for the major, I would like to establish a minor in American Studies. Currently about half of my majors are pursuing a double major. This trend of coupling American Studies with another discipline tells me that undergraduates want American Studies courses and this identification, but they also want the traditional major which gives them a more readily understood definition when they go job hunting. I am convinced a minor would attract many more students to our upper division course offerings. Once they sample our courses with an eye toward acquiring a minor, I suspect some will be converted to majors. That is to say, a minor would greatly bolster American Studies enrollments.

The minor would be very easily defined in terms of the proposed changes for the major. The required fifteen units would consist of the two introductory courses, AMS 101 & 102, and 9 AMS credits at a 200 level or above -- the core requirements of the major. (See supplement #1)

As director of American Studies, I currently shoulder the responsibility of advising all my majors. So far this has worked well and not posed a particularly heavy demand upon my time. I am confident that I could provide all necessary advisement for students who decide to pursue this minor. Should this number eventually exceed thirty, some additional help might be needed, but that would undoubtedly not be for some time.

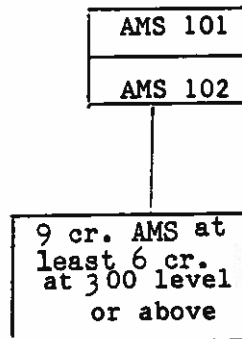
I sincerely hope that your committee will approve this proposal, for at this point I believe it is essential to the continued livelihood of the program.

THP:rt



SUPPLEMENT #1

A m e r i c a n   S t u d i e s (Proposed AMS Minor)



proposed minor in AMS = 15 hrs.

Revision of Bachelor of Science in Statistics (SBS).

Revised copy of the "suggested curriculum" for the B.S. in Statistics (SBS) is attached, reflecting the following changes:

- (1) Deletion of M 630. The document creating the current list of required courses clearly indicated that M 630 was to be removed (in fact this change was central to the entire revision), however the copy used for preparation of catalog / computer listings did not have a line through this course. We seek to correct this clerical error.
- (2) The sequence CIS 180-181 came into our requirements as a replacement for CIS 170-171. This section involves a student option, with CIS 105 being one possible choice. Since CIS 180 has CIS 105 as a prerequisite it makes no sense to list CIS 180-181 as an alternate choice.
- (3) The department seeks to add a C-rule to our B.S. degrees to be consistent with the college rule in B.A. degrees.

Change →  
not approved  
by USC.  
RFB  
4/18/86.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: STATISTICS (SBS)

<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>
<b>UNIVERSITY REQUIREMENTS</b>						
E 110	Critical Reading and Writing	3	X			
<b>MAJOR REQUIREMENTS *</b>						
<u>Within the Department</u>						
M 210	Introductory Discrete Mathematics	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 268	Introduction to Computation	1	X			
M 349	Elements of Linear Systems	3		X		
M 302	Ordinary Differential Equations I	3		X		
M 260	Concepts of Analysis	3		X		
M 426	Introduction to Numerical Analysis and Algorithmic Computation	3			X	X
M 503	Advanced Calculus for Applications	3			X	X
or						
M 601	Advanced Calculus - Introduction to Analysis I	3				
and						
M 602	Advanced Calculus - Introduction to Analysis II	3				
<del>M 630</del>	<del>Introduction to Probability Theory</del>	<del>3</del>	<del></del>	<del></del>	<del>X</del>	<del>X</del>
ST 205	Statistical Methods	4	X			
ST 370	Introduction to Statistical Analysis	3		X		
ST 371	Introduction to Statistical Analysis II	3		X		
ST 418	Sampling Methods	3			X	X
ST 420	Data Analysis and Nonparametric Statistics	3			X	X
ST 611	Regression Analysis	3			X	X
ST 615	Design and Analysis of Experiments	3			X	X
Three credits from the following:						
ST 616	Design and Analysis of Experiments II	3				X
ST 617	Multivariate Methods	3				
ST 618	Sampling Techniques	3				

\* A grade of C or better is required for major courses and related work.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: STATISTICS (SBS)

<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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Within the College

Related Work

CIS 105 General Computer Science

3 X X

or

CIS 106 General Computer Science for Engineers

3

~~CIS 180 Introduction to Computer Science I  
 and  
 CIS 181 Introduction to Computer Science II~~

~~REINSTATE, DELETION  
 NOT APPROVED.~~

E 312 Written Communications in Business

3 X X

xx xxx Two semester sequence of laboratory science.

8 X X

xx xxx Area of Application: *y*  
 Note: This program requires a fifteen credit area of application outside the department. Students should check with the adviser to develop it.

15 X X X X

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.

3 X or X

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

0-12 X X X X

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: STATISTICS (SBS)

<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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Breadth Requirements\*

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same department.

21 X X X X

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

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

128

\*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.

Revision of Bachelor of Science in Mathematical Sciences (MTS).

Revised copies of the "suggested curriculum" for the B.S. in Mathematical Sciences (MTS) reflecting the following editorial corrections are attached:

- Change →  
not approved  
by USC.  
RFB  
4/16/86.
- (1) The sequence CIS 180-181 came in as a replacement for CIS 170-171, however CIS 180 has CIS 105 as a prerequisite unlike CIS 170. Therefore it no longer makes sense to list this sequence as an alternative to CIS 105 since anyone taking CIS 180 will have already fulfilled the choice with CIS 105.
  - (2) On the Modern Applications concentration the courses M 427, M 428 have been omitted from a list of elective major courses. This was a clerical error at some level since departmental checklists have always included these two courses (possibly due to confusion over numbers since these courses are cross listed with CIS, with a change in number from that originally proposed for use by Mathematical Sciences).
  - (3) On the Physical Mathematics concentration the course M 617 is listed under the deleted M 417 number once used for cross listing.
  - (4) A note needs to be inserted somewhere to reflect the new policy of the department requiring a grade of C or better in all major courses and related work. This change is to bring our B.S. degree in line with college B.A. requirements. Without a C rule our weakest students are lured to the B.S. program, getting themselves overloaded in technical courses.



COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MATHEMATICS OF COMPUTATION (MTS/MATH COMPUT)

<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
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E 110 Critical Reading and Writing	3	X			
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MAJOR REQUIREMENTS *
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Within the Department

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 268 Introduction to Computation	1	X			
M 302 Ordinary Differential Equations I	3		X		
M 349 Elements of Linear Systems	3		X		
M 260 Concepts of Analysis	3		X		
M 426 Introduction to Numerical Analysis and Algorithmic Computation	3			X	X
M 503 Advanced Calculus for Applications	3			X	X
or M 601 Advanced Calculus - Introduction to Analysis I	3				
and M 602 Advanced Calculus - Introduction to Analysis II	3				
M 508 Introduction to Complex Variables and Application	3			X	X
M 450 Abstract Algebra	3-4			X	X
M 672 Vector Spaces	3			X	X
M 389 Discrete Mathematics	3		X	X	
M 529 Linear Programming: Methods and Applications	3			X	X
ST 370 Introduction to Statistical Analysis I	3			X	
ST 371 Introduction to Statistical Analysis II	3			X	

\* A grade of C or better is required for major courses and related work.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MATHEMATICS OF COMPUTATION (MTS/MATH COMPUT)

<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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Within the College

Related Work

CIS 105 General Computer Science

3

X

X

or

CIS 106 General Computer Science for Engineers

3

or

~~CIS 180 Introduction to Computer Science I~~

and

~~CIS 181 Introduction to Computer Science II~~

1/3 ]

REINSTATE.

DELETION  
NOT APPROVED.

CIS 411 Algorithmic and Numerical Solution of  
Differential Equations

3

X

X

CIS 626 Simulation of Continuous Systems

3

X

X

CIS 627 Simulation of Discrete Systems

3

X

X

CIS 220 Data Structures

3

X

X

E 312 Written Communications in Business

3-

X

X

xx xxx Two semester sequence of laboratory science.

8

X

X

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.

3

X or

X

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

0-12

X

X

X

X

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MATHEMATICS OF COMPUTATION (MTS/MATH COMPUT)

<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>Breadth Requirements*</u>					
A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same department.	21	X	X	X	X
<u>Group A.</u> Understanding and appreciation of the creative arts and humanities.					
<u>Group B.</u> The study of culture and institutions over time.					
<u>Group C.</u> Empirically based study of human beings and their environment.					

ELECTIVES
-----------

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

128

\*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.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MODERN APPLICATIONS (MTS/MODERN APPLIC)

<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

MAJOR REQUIREMENTS \*

Within the Department

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 268	Introduction to Computation	1	X		
M 349	Elements of Linear Systems	3		X	
M 302	Ordinary Differential Equations I	3		X	
M 260	Concepts of Analysis	3		X	
M 426	Introduction to Numerical Analysis and Algorithmic Computation	3			X X
M 601	Advanced Calculus and Introduction to Analysis I	3		X	X
M 602	Advanced Calculus - Introduction to Analysis II	3		X	X
M 508	Introduction to Complex Variables and Application	3		X	X
M 450	Abstract Algebra	3-4		X	X
M 672	Vector Spaces	3		X	X
M 389	Discrete Mathematics	3		X	
M 529	Linear Programming: Methods and Applications	3		X	X
ST 370	Introduction to Statistical Analysis I	3		X	
ST 371	Introduction to Statistical Analysis II	3		X	
	Nine credits from the following:	9		X	X
M 691	Nonlinear Programming	3			
M 692	Dynamic Programming	3			
M 693	Integer Programming and Network Flows	3			
M 630	Introduction to Probability Theory	3			
M 631	Introduction to Stochastic Processes	3			
M 632	Topics in Applied Probability	3			
M 518	Mathematical Models and Applications	3			
M 689	Combinatorics	3			
ST 623	Mathematical Methods of Operations Research	3		X	X

[ M 427 Approximation Theory 3  
 M 428 Algorithmic and Numerical Solution  
 of Differential Equations 3

\* A grade of C or better is required in major courses and minor courses.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MODERN APPLICATIONS (MTS/MODERN APPLIC)

<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>Within the College</u>					
<u>Related Work</u>					
PS 207 General Physics	4	X	X		
PS 208 General Physics	4	X	X		
CIS 105 General Computer Science	3	X	X		
or					
CIS 106 General Computer Science for Engineers	3				
<del>CIS 180 Introduction to Computer Science I</del> and <del>CIS 181 Introduction to Computer Science II</del>					
E 312 Written Communications in Business	3			X	X
<u>Skill Requirements</u>					
<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
<u>Foreign Language:</u> Completion of the intermediate-level course in a given language (112) or satisfactory performance on a placement test in the language of the student's choice.	0-12	X	X	X	X

REINSTATE, DELETION  
NOT APPROVED.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: MODERN APPLICATIONS (MTS/MODERN APPLIC)

<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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Breadth Requirements\*

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same department.

21

X

X

X

X

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
-----------

Electives

X

X

X

X

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

128

\*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.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: PHYSICAL MATHEMATICS (MTS/PHYSICAL MATH)

<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
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E 110 Critical Reading and Writing	3	X			
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MAJOR REQUIREMENTS *
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Within the Department

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 268 Introduction to Computation	1		X		
M 349 Elements of Linear Systems	3		X		
M 302 Ordinary Differential Equations I	3		X		
M 260 Concepts of Analysis	3		X		
M 426 Introduction to Numerical Analysis and Algorithmic Computation	3			X	X
M 601 Advanced Calculus - Introduction to Analysis I	3			X	X
M 602 Advanced Calculus - Introduction to Analysis II	3			X	X
M 508 Introduction to Complex Variables and Applications	3			X	X
M 450 Abstract Algebra	3-4			X	X
M 672 Vector Spaces	3			X	X
M 609 Intermediate Ordinary Differential Equations	3			X	X
M 610 Introduction to Partial Differential Equations with Applications	3			X	X
or					
M 616 Introduction to Applied Mathematics I	3				
M <del>417</del> <sup>617</sup> Introduction to Applied Mathematics II	3			X	X
ST 370 Introduction to Statistical Analysis I	3			X	
ST 371 Introduction to Statistical Analysis II	3			X	

Within the College

Related Work

PS 207 General Physics	4	X	X		
PS 208 General Physics	4	X	X		
PS 209 General Physics	3		X	X	
PS 419 Analytical Mechanics	3			X	X
PS 420 Analytical Mechanics	3			X	X

\* A grade of C or better is required for major courses and related work.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: PHYSICAL MATHEMATICS (MTS/PHYSICAL MATH)

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>
CIS 105 General Computer Science	3	X	X		
or CIS 106 General Computer Science for Engineers	3				
or CIS 180 Introduction to Computer Science I and CIS 181 Introduction to Computer Science II	3	REINSTATE, DELETION NOT APPROVED			
E 312 Written Communications in Business	3			X	X

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.

3

X or X

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

0-12 X X X X

Breadth Requirements\*

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same department.

21 X X X X

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.



COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF SCIENCE  
 MAJOR: MATHEMATICAL SCIENCES  
 CONCENTRATION: PHYSICAL MATHEMATICS (MTS/PHYSICAL MATH)

<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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ELECTIVES
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X	X	X	X
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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

128

\*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.

Revision of Bachelor of Arts in Mathematical Sciences (MTA).

The edited copy of the "suggested curriculum" for the B.A. in Mathematical Sciences reflects the two following changes:

- (1) Listing the fifteen credit area of application under the major requirements rather than as a footnote. We have found that the fine print of a footnote is being overlooked by some people, causing problems with scheduling this coursework for some students. This is not a change of the requirements.
- (2) Deletion of CIS 180-181 as a choice for satisfying the basic Computer Science requirement. The Department had offered the old CIS 170-171 as an alternative to choosing CIS 105 since a student could begin with either course. However CIS 180 (which replaced CIS 170) has CIS 105 as a prerequisite, hence any student beginning CIS 180 will already have completed the alternate choice of CIS 105!

Change →  
not  
approved  
by USC.  
RFB  
4/18/86.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF ARTS  
 MAJOR: MATHEMATICAL SCIENCES (MTA)

<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
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E 110 Critical Reading and Writing

3 X

BA - COLLEGE REQUIREMENTS
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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.

3 X or X

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

0-12 X X X X

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 211 Introductory Calculus

4

M 221 Calculus I

3

M 241 Analytic Geometry and Calculus A

4

or

Successful performance on the college proficiency examination.

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF ARTS  
 MAJOR: MATHEMATICAL SCIENCES (MTA)

<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>Breadth Requirements*</u>					
<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

MAJOR REQUIREMENTS
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Within the Department

M 268	Introduction to Computation	1	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 I	3		X	
M 349	Elements of Linear Systems	3		X	
M 503	Advanced Calculus for Applications	3			X
or					
M 508	Introduction to Complex Variables and Applications	3			
M 389	Discrete Mathematics	3		X	X
or					
M 529	Linear Programming: Methods and Application	3			

COLLEGE: ARTS AND SCIENCE  
 DEPARTMENT: MATHEMATICAL SCIENCES  
 DEGREE: BACHELOR OF ARTS  
 MAJOR: MATHEMATICAL SCIENCES (MTA)

SUGGESTED CURRICULUM	CREDITS	TYPICAL FRESHMAN COMPLETES	TYPICAL SOPHOMORE COMPLETES	TYPICAL JUNIOR COMPLETES	TYPICAL SENIOR COMPLETES
ST 370 Introduction to Statistical Analysis I	3			X	
ST 371 Introduction to Statistical Analysis II	3			X	
M 3xx Twelve credits of Mathematics and/or and/or Statistics at the 300-level or above.	12			X	X
ST 3xx (M 601 and 602 are not applicable.)					

Within the College

CIS 105 General Computer Science	3	X	X		
or					
CIS 106 General Computer Science for Engineers	3				

<del>CIS 180 Introduction to Computer Science I</del>	<del>3</del>				
and					
<del>CIS 181 Introduction to Computer Science II</del>	<del>3</del>				

REINSTATE. DELETION NOT APPROVED.

E 312 Written Communications in Business	3			X	X
or					
xx xxx Suitable equivalent					

within the University

xx xxx A fifteen credit area of application outside the department. <del>courses</del> must be approved by the department Undergraduate Studies Committee. Student should check with the adviser.	15	X	X	X	X
<u>Electives</u>		X	X	X	X

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

\*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: This program requires a fifteen credit area of application outside the department. Student should check with the adviser to develop it.

(Please to look clearly above)

COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: INDIVIDUAL AND FAMILY STUDIES  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: COMMUNITY AND FAMILY SERVICES (CF)

<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
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E 110 Critical Reading and Writing	3	X			
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MAJOR REQUIREMENTS
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External to the College

Humanities

E xxx English course	3		X		
COM xxx Communication course	3		X		
xx xxx Humanities courses selected from: Art, Art History, Communication (except 320, <del>320</del> , English, Languages, Literature, Music, Philosophy, Theatre.	6	X			

Sciences

xx xxx Science courses selected from: Physical Anthropology, Biology, Chemistry, Health and Life Sciences, Physical Sciences, Physics, Physiological Psychology, Plant Science <del>XXX XXX 102</del> , Entomology <del>XXX</del> , Computer Science, Physical Geography, Geology, Mathematics, Statistics. (One course chosen must be a lab and at least six credits must be in Physical and Biological Sciences.)	15	X	X		
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Social Sciences

SOC 201 Introduction to Sociology	3	X			
PSY 201 General Psychology	3	X			
xx xxx Social Science courses selected from: Cultural Anthropology, Black American Studies, Business Administration <del>109 XXX 321</del> , Criminal Justice, Economics, Agricultural Economics <del>120</del> , Economic and Social Geography, History, Plant Science <del>XXX</del> , Political Science, Psychology, Sociology <del>XXX XXX XXX XXX XXX XXX XXX</del> .	9		X	X	X



COLLEGE: HUMAN RESOURCES  
 DEPARTMENT: INDIVIDUAL AND FAMILY STUDIES  
 DEGREE: BACHELOR OF SCIENCE IN HUMAN RESOURCES  
 MAJOR: COMMUNITY AND FAMILY SERVICES (CF)

<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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**ELECTIVES**

Restricted electives determined in consultation with  
 adviser upon completion of IFS 235.

18

X

X

Electives

May include Military Science, Music or Physical  
 Education. (Only two credits of activity type  
 Physical Education and four credits of Music  
 organization credits may be counted toward the degree  
 and four credits of 100- and 200-level courses in  
 Military Science/Air Force.)

*13*

X

CREDITS TO TOTAL A MINIMUM OF

129



## Curricular Revisions for Community & Family Services (CF)

<u>Old</u>		<u>New</u>	
IFS, TDC or FSN elective	3	IFS 345 Dev. of Human Services Personnel	3
HR 101 Intro to Human Services	1	IFS 101 Intro to Community and Family Services	1
IFS 465 Seminar (CF)	3	IFS 465 Seminar (CF)	1
Electives	11	Electives	13

### Rationale:

The addition of IFS 345 Development of Human Services Personnel: CF majors have a need to develop cohesiveness as a group and be able to recognize the major as a discipline. There is also a need for majors to gain more awareness of the practical aspects of the job; it will provide opportunity for majors to examine organizational and job related issues to help develop skills and to make them more employable.

IFS 101 Introduction to Community and Family Services (1) more clearly defines the purpose and content of the course currently required (HR 101 Intro. to Human Services). Also, the course has always been taught by faculty in the IFS Department; this will identify the course with the appropriate department.

The reduction of IFS 465 Seminar from 3 credits to 1 credit will allow for more electives in the area of emphasis and will concentrate on work related to professional issues and assignments in conjunction with the Practicum taken concurrently.



# University of Delaware

COLLEGE OF ARTS AND SCIENCE  
DEPARTMENT OF COMMUNICATION  
EWING HALL  
NEWARK, DELAWARE 19716

(302) 451-8041

Date: December 10, 1985

To: Dr. Peter Rees, Associate Dean  
College of Arts and Sciences

From: Dr. Douglas Boyd, Chair  
Department of Communication

*George A. Borden*  
Dr. George Borden, Chair  
Department Curriculum Committee

Re: Restructuring of the Communication Major

We are submitting herewith documents that detail the restructuring of the Communication Major commensurate with recommendations of the Fall 1984 Department Evaluation Committee. The approval of these documents will put in place the following:

1. The elimination of unnecessary course overlap within the department.
2. The elimination of 31 courses from the department's present offerings.
3. The formation of a Junior-Senior Communication Major with the following ramifications:
  - a. The admission of students desiring the communication major as Communication Interest Majors (CIM).
  - b. A two-year four-course sequence that CIM students must complete with a 2.5 or higher g.p.a. before being admitted to the Communication Major (COM).
  - c. A two-emphasis Communication Major with precise requirements and time sequencing.
  - d. The assurance that communication graduates will have a solid, well focused academic background.

- e. A simplified advising process with courses sequenced for easy projection to future semesters and requirements clearly stated.
- f. A clear statement of the Department's focus to enable high school counselors to advise prospective students more adequately.
- g. Sufficient structure in the teaching schedules to be able to project future needs of the Department.

In developing this new curriculum structure for the Department we have added no new courses. COM 388 Winter Term TV Production is a combination of COM 288 Winter Term TV Production and COM 489 Advanced Winter Session Television Management and Production which were eliminated along with an experimental course we have been teaching each Fall in Winter Term TV news production. These changes are the result of deemphasizing TV production and changing Winter Term Television from a Cable News production to an in-house production experience (COM 388).

Changing the Communication Major to a Junior-Senior major with the two-year sequence of courses for the Communication Interest Majors (CIM) is a means of maintaining a manageable number of communication majors without having a quota for incoming students each year. This was strongly recommended by the Department Evaluation Committee. However, this means that there may be an inordinate number of freshmen and sophomores in the four-course sequence for CIMs, and will require adequate staffing for these courses. When the quota was lifted last spring we admitted 141 new majors and 70 transfers (211 total), pushing our total number of majors to over 400. Many of these students will not make the cut (estimates from past student records are 25-30%) if we can implement the attached program.

We are asking that these changes be approved in time to put them into effect by the Fall semester of 1986 (87A). That means that the two page description (Attachment C) must be sent out with the freshman letter this spring.

We thank you for your help in this request.

COMMUNICATION DEPARTMENT  
MAJOR REQUIREMENTS

Dec. 1, 1985

General Requirements:

I. The Communication Major is a Junior-Senior Major. Students desiring this major enter as Communication Interest Majors (CIM) and take a four-course, two-year sequence to qualify as Communication Majors (COM).

II. The four courses required of the incoming students who intend to become Communication Majors are COM 245, 256, 301 & 330. These are offered in a two-year sequence (at the times listed below) and must be completed with a g.p.a. of 2.5 or better for the student to be admitted to the Communication Major.

COM 256 Principles of Communication Theory (Fall, Spring)

COM 245 Mass Communication and Culture (Spring)

COM 301 Introduction to Communication Inquiry (Fall, Spring)

COM 330 Communication and Social Behavior (Spring)

II. The Communication Major requirements are:

1. COM 350 Public Speaking (Fall, Winter, Spring, Summer)

2. Completion of one of the two Emphases  
(Mass Com or Ip/Org Com)

3. A minimum of 4 - 400 level courses (NOT 466 or 468)  
(one of these must be in the other emphasis)

4. Up to six COM elective courses for a total of not less than 36 nor more than 45 COM credits. (These may be taken in either emphasis or from the general electives.)

**Mass Communication Emphasis:** (Mass Com)

The Mass Com emphasis is one of understanding the theory, development, and effects of the mass media. Course material is designed to provide a theoretical base that can be effectively adopted and applied in a professional environment. We are not a media production department. The production courses are limited to giving those students who desire a basic knowledge of production methods (e.g., for use in public relations or corporate communication) the understanding of these methods. Students choosing the Mass Com emphasis **MUST** take COM 290 (a prerequisite to the four required courses) before entering the Mass Com track. The following required courses are taught only in the semester indicated and should be taken in this order:

- COM 365 Legal Issues of the Mass Media (Fall)
- COM 424 Media Message Analysis (Spring)
- COM 445 Comparative and International Broadcasting (Fall)
- COM 450 Mass Communication Effects (Spring)

**Interpersonal/Organizational Communication Emphasis:** (Ip/Org Com)

The Ip/Org Com emphasis is one of understanding the theory and development of human communication strategies for effective relationships in both personal and organizational contexts. Course materials are designed to provide a theoretical base that can be applied to life's situations that require human interaction on a personal, business, or social level. The more practical courses, e.g., Small Group Communication, and Interviewing, give real experiences in these areas. The following required courses are taught only in the semester indicated and should be taken in this order:

- COM 361 Interpersonal Communication (Fall)
- COM 417 Communication and Management of Conflict (Spring)
- COM 455 Symbolism in Organizations (Fall)
- COM 456 Communication in Organizations (Spring)

### Communication Electives:

Communication electives are offered in each emphasis as well as a specific sequence of electives that have been accredited by the Public Relations Society of America. The Public Relations sequence may be taken with either emphasis as may any of the other elective courses. The student may choose sufficient electives to give him/her a minimum of 36 Communication credit hours but not more than 45 Communication credit hours.

#### Mass Com Electives

- COM 325 Television Production (Fall, Spring)
- COM 388 Winter Term TV Production (Winter) (P/F)
- COM 418 Topics in Mass Communication (Fall, Spring)  
(may be taken up to three times with different topics)
- COM 435 Advanced TV Production and Direction (Fall, Spring)

#### Ip/Org Com Electives

- COM 251 The Development of Verbal Communication (Fall)
- COM 320 Analysis of Intercultural Communication (Fall)
- COM 340 Principles of Interviewing (Fall, Spring)
- COM 356 Small Group Communication (Fall, Spring)
- COM 421 Intercultural Communication: Applications (Spring)
- COM 438 Speech and Language in Human Behavior (Fall)
- COM 440 Topics in Ip/Org Communication (Fall, Spring)  
(May be taken up to three times with different topics)
- COM 452 Communication, Power, and Values (Fall)
- COM 485 Analysis of Verbal Communication (Spring)

### Public Relations Sequence

(E 307 is prerequisite to this sequence)  
(and should be taken in the sophomore year)

- COM 309 Introduction to Public Relations (Fall, Spring)
- COM 311 Public Relations Communication Techniques (Fall, Spring)
- COM 409 Public Relations (Fall, Spring)
- COM 413 Public Relations Program Design (Fall, Spring)

### General Electives

- COM 366/466 Independent Study (permission of Prof. & Chair)
- COM 367/467 Experimental Courses (Usually in Winter Term)
- COM 468 Internship - all areas - (Fall, Spring) (P/F)
- COM 490 Honors Reading in Communication (by permission)
- COM 491 Honors Thesis (by permission)

### Non-Major Service Courses

- COM 200 Introduction to Human Communication Systems (Spring)
- COM 255 Fundamentals of Communication (Fall, Spring, Summer)  
(not open to majors or seniors)
- COM 263 International Social Conduct (Winter)
- COM 360 Oral Interpretation of Literature (Spring)
- COM 460 Principles of Communication for Teachers (Summer)



### The Speech Pathology/Audiology Option:

This option is open to those students desiring to become certified speech pathologist. The program cannot be completed at the University of Delaware as we do not offer the required courses. The option allows a student to obtain sufficient education in the speech pathology/audiology area to enter a Master's degree program at some other university where s/he can work toward certification. The speech pathology/audiology option is also a Junior-Senior program requiring the student to take the same CIM sequence as regular communication majors. Upon completing this sequence with a gpa of 2.5 or better they may then opt for the following sequence of courses in lieu of the Mass Com or Ip/Org Com emphasis. The following required courses are taught only in the semester indicated and should be taken in this order:

COM 275 Introduction to Phonetics and Phonology (Fall - Odd)

COM 430 Introduction to Audiology (Spring - Even)

COM 431 Introduction to Speech Pathology (Fall - Even)

COM 432 Introduction to Language Disorders (Spring - Odd)

Six credits of COM 468 (internship) are also necessary to obtain sufficient clinical experience to gain entrance to a Master's program.



## NEW COMMUNICATION MAJOR REQUIREMENTS: 1990 and after

### PREREQUISITES TO THE MAJOR: 12 credits

COM 256  
COM 301

COM 245  
COM 330

-----  
When completed with a gpa of 2.5 or above

Students are admitted to the Communication Major

and must choose either

MASS COM EMPHASIS: 12 CREDITS

or

IP/ORG COM EMPHASIS: 12 CREDITS

(COM 290 is prerequisite:)

COM 365  
COM 424  
COM 445  
COM 450

and must take

COM 350

COM 361  
COM 417  
COM 455  
COM 456

ELECTIVES

(choice of up to 18 credits:)

#### Public Relations Sequence:

E 307 prereq. to sequence  
COM 309 (prereq. E 307)  
COM 311 (prereq. COM 309)  
COM 409 (prereq. COM 311)  
COM 413 (prereq. COM 409)

#### Mass Com

COM 290  
COM 325  
COM 388  
COM 418  
COM 435

#### Ip/Org Com

251 320  
340 356  
421 438  
440 452  
485

#### General

366/466  
367/467  
468  
490  
491

### NON-MAJOR SERVICE COURSES

(No credit given toward major)

COM 200  
COM 255 (NOT OPEN TO MAJORS)  
COM 263  
COM 360  
COM 460

UNIVERSITY OF DELAWARE  
DEPARTMENT OF COMMUNICATION  
UNDERGRADUATE STUDIES

## THE DEPARTMENT

The Department is a unit within the College of Arts & Science with 11 faculty, 400 undergraduate, and 15 graduate students. It emphasizes the attainment of a solid liberal arts education.

## PROGRAM OF STUDY

The goal of the program is to provide students with both a theoretical and practical knowledge of the communication process. Graduates possess marketable skills but the program is not vocationally oriented. The curriculum of the Department of Communication develops from basic foundation and introductory courses to those in specialized areas. There are two areas of interest within the major: Mass Communication and Interpersonal/Organizational Communication. After completing the required introductory courses the student may concentrate in one of these areas and then take elective courses in Public Relations or other general communication electives. The communication major is a Junior-Senior major. Students desiring to major in communication are designated Communication Interest Majors (CIM) until they have fulfilled the following requirements:

1. In the first year CIM students take two communication courses: COM 256 Fundamentals of Communication Theory (fall semester) and COM 245 Mass Communication and Culture (spring semester). The remaining courses should consist of those fulfilling the college group requirements and electives.
2. In the fall of the second year CIM students take COM 301 Introduction to Communication Inquiry, and in the spring of the second year COM 330 Communication as Social Interaction.
3. Students must have earned a minimum of 30 quality points (a 2.50 g.p.a.) in these 4 required communication courses to be admitted into his/her third year as a Communication Major. Failure to obtain the required number of quality points indicates that communication is NOT the best major for that student and s/he will be dropped from the program.

Communication Majors must focus their studies in either Mass Communication or Interpersonal/Organizational Communication. To fill their elective credits in communication they may take the Public Relations sequence or other more diversified electives in the department. Television production courses are available only as electives to give a basic knowledge of production methods.

## YEARLY SCHEDULE

COMMUNICATION INTEREST MAJORS [CIM]

<u>FALL</u>		<u>First</u>	<u>SPRING</u>	
	credits			credits
COM 258	3		COM 245	3
BA requirements	<u>9-12</u>		BA requirements	<u>9-12</u>
TOTAL 12-15			TOTAL 12-15	
		<u>Second</u>		
COM 301	3		COM 330	3
BA requirements	<u>9-12</u>		BA requirements	<u>9-12</u>
TOTAL 12-15			TOTAL 12-15	

COMMUNICATION MAJOR [COM]

		<u>Third</u>		
COM courses	6		COM (400 level)	6
Electives	<u>8-9</u>		Electives	<u>8-9</u>
TOTAL 12-15			TOTAL 12-15	
		<u>Fourth</u>		
COM (400 level)	6		COM (400 level)	6
Internship?	.		Internship?	
Electives	<u>8-9</u>		Electives	<u>8-9</u>
TOTAL 12-15			TOTAL 12-15	

## INTERNSHIPS

Internships are available to qualified Communication students. Students involved in this program have worked in radio and television stations, advertising and public relations agencies, government offices, hospitals, speech clinics, school systems, service organizations, and corporations.

## EMPLOYMENT

Employment opportunities for graduates have been excellent. Graduates have found positions in local, state, and federal government agencies, in electronic and print journalism, radio and television production and programming, public relations and advertising (with agencies and corporations), personnel departments, and in managerial positions in various corporations and non-profit organizations. Many graduates continue their education by attending graduate or professional school.

UNIVERSITY OF DELAWARE INTER-DEPARTMENTAL

# Memorandum

April 3, 1986



TO: Robert Brown, Chair  
University Senate Undergraduate Studies Committee

FROM: Joan DeFattore, Chair  
Arts and Science Coordinating Committee on Secondary Education

As part of the followup to last year's review by the National Association of State Directors of Teacher Education and Certification (NASDTEC), it is necessary to correct a few minor discrepancies that now exist between the actual requirements of these programs. The Departments of Mathematical Sciences and Music would also like to make minor changes that add up to two credits per program. With the consent of Deans Gouldner and Murray, the Coordinating Committee on Secondary Education has compiled all of this material into a single document, since this approach seems to minimize effort and confusion in dealing with the University/NASDTEC approval procedures. The chairs of the departments involved have agreed in writing to the emendations which are listed, with brief explanations, on the attached sheets. Please let me know if you require further information.

cc: Dean Helen Gouldner  
Dean Frank Murray  
Arts and Science Coordinators

*Re: attached miscellaneous minor changes in curricula leading to teacher certification.*

*The Committee on Undergraduate Studies approved these changes on 4/18/86, and decided it was more efficient to bring them to the University Faculty Senate in this memo form rather than as discrete items of business. They are mainly "housekeeping" changes rather than substantial alterations.*

*Robert F. Brown, Chairperson  
4/18/86*



## BIOLOGY EDUCATION

<u>Current Catalog Listing</u>		<u>Proposed Catalog Listing</u>	
B 301 Cellular and Molecular Biology	4	B 301	4
B 302 General Ecology	4	B 303	4
B 303 Genetic and Evolutionary Biology	4	One of the following:	
Biology courses	13	B 302	3
		B 306 General Physiology	4
		Biology courses	13-14

Reason: The non-education biology B.A. majors have a choice of any two of B 301, 302, and 306. The Biology Education Program has to require B 301 to meet teacher certification standards, but there is no reason why biology education majors should not have the same choice of B 302 or 306 that other biology majors have.

The adjustment in the elective credit hours brings biology education into line with the non-education biology B.A. major in requiring a total of 33, not 32, credits within the department.

<u>Current Catalog Listing</u>	<u>Proposed Catalog Listing</u>
C 214 Elementary Biochemistry	C 214
and	and
C 216 Elementary Biochemistry Laboratory	C 216
or	
C 322 Organic Chemistry	
and	
C 326 Organic Chemistry Laboratory	

Reason: Biology education students must take C 214 and 216 rather than C 322 and 326 to cover the areas required for teacher certification.

## ENGLISH EDUCATION

<u>Current Catalog Listing</u>	<u>Proposed Catalog Listing</u>
-----	E202 Biblical and Classical Literature

Reason: This course has been required of English education majors for several years and is necessary to meet teacher certification standards. Its absence from the catalog is an editorial error.

<u>Current Catalog Listing</u>	<u>Proposed Catalog Listing</u>
EDD 623, Foundations of Teaching	EDD 403, Literature for Adolescents
Upper-Level Reading	
or	
EDD 603, Literature for Adolescents	

Reason: Literature for Adolescents was originally offered experimentally

as an alternative to Foundations of Teaching Upper-Level Reading. It now has a permanent number, and, as part of last year's NASDTEC review, it was accepted as the English Education Program's official replacement for the other course.

Literature for Adolescents was originally listed as EDD 603 because the Educational Development Department erroneously dropped the 400-level listing for this course, which is dual-listed. This error has been corrected in Educational Development's current Course Catalog listing and should be corrected in the English Education Program's Academic Programs and Policies Catalog listing.

Current Catalog Listing  
E467, Seminar in Teaching

Proposed Catalog Listing  
E481, Seminar in Teaching English

Reason: This course has had a permanent number and a new title for two years, but, because of an oversight, the Academic Programs and Policies Catalog has not yet been updated.

Current Catalog Listing  
Within the Department

Proposed Catalog Listing  
Within the Department #

# One of the upper-division  
courses selected must be a  
Seminar (E480).

Reason: This notation already appears under English, English: Journalism, English: Film, and English: Business/Technical Writing. English education students, like all other English majors, take a seminar; the omission of this notation from the catalog is an oversight.

#### MATHEMATICS EDUCATION

Current Catalog Listing  
-----

Proposed Catalog Listing  
M 268 Introduction to Computation 1

Reason: This seminar, required for non-education mathematics majors, should be included in the Mathematics Education Program because it provides a valuable overview of the use of microcomputers in solving basic calculus and algebra problems.

Current Catalog Listing  
PS 207 General Physics 4  
PS 208 General Physics 4

Proposed Catalog Listing  
PS 207 4

Reason: PS 207 is sufficient to satisfy the standards of the Department of Mathematical Sciences and the requirements of the agency for teacher certification (NASDTEC); PS 208 is not needed in the program.



## MUSIC EDUCATION

### Current Catalog Listing

DEGREE: Bachelor of Music  
MAJOR: Music Education-General/Choral  
CONCENTRATION: Instrumental

### Proposed Catalog Listing

DEGREE: Bachelor of Music  
MAJOR: Music Education  
CONCENTRATION: Instrumental

Reason: The Music Department offers two general/choral programs (keyboard and voice) and an instrumental program. The insertion of "general/choral" into the description of the instrumental program was an editorial error and makes no sense.

### Current Catalog Listing

(Music Education: Instrumental,  
Keyboard, Voice)

MU 285	2
MU 286	2
MU 295	3

### Proposed Catalog Listing

MU 285	1
MU 286	1
MU 295	4

Reason: These changes reflect a departmental re-evaluation of the appropriate credit values of these courses for music education students. These changes in credits do not affect the programs' compliance with teacher certification standards.

### Current Catalog Listing

(Music Education: Instrumental,  
Keyboard, Voice)

MU 462 Private Study	2
----------------------	---

### Proposed Catalog Listing

(Music Education: Instrumental  
Keyboard, Voice)  
-----

Reason: Students are already required to take 14 credits of private study and do not need 16 credits. This policy, which does not affect the programs' compliance with teacher certification standards, has been in effect for several years; the catalog error has just been noticed.

### Current Catalog Listing

(Music Education: Instrumental,  
Keyboard, Voice)

MUE 179, Introduction to Music Education	1
---	---

### Proposed Catalog Listing

(Music Education: Instrumental  
Keyboard, Voice)  
-----

Reason: The Music Department has decided that this course, which was originally a recruiting device, is not needed in the program. The deletion of this course does not affect teacher certification requirements.

Current Catalog Listing  
(Music Education: Keyboard)  
MU 109 Choral Union 4-7

Proposed Catalog Listing  
(Music Education: Keyboard)  
MU 109 Choral Union 4

The number "7" refers to the total credits in the Ensemble section of the requirements in the major and should not have been placed next to MU 109. The requirement for MU 109 is, and has been, 4 credits.





COLLEGE: BUSINESS AND ECONOMICS  
 DEPARTMENT: BUSINESS ADMINISTRATION  
 DEGREE: BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION  
 MAJOR: BUSINESS ADMINISTRATION  
 CONCENTRATION: FINANCIAL MANAGEMENT (BAF)

<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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Within the College

EC 151# Introduction to Microeconomics	3	X			
EC 152# Introduction to Macroeconomics	3	X			
EC 302 Money, Credit and Banking	3			X	
EC xxx+ Three to six credits in Economics at the 300-level or higher.	3-6			X	X
ACC 207# Accounting I	3		X		
ACC 208# Accounting II	3		X		
ACC 352 Law and Social Issues in Business	3			X	
ACC xxx* Accounting course(s)	0-6				X

Within the Department

BU 260 Introduction to Business Information Systems I	3		X		
BU 301# Introduction to Marketing	3			X	
BU 306# Operations Management	3			X	
BU 309# Management and Organizational Behavior	3			X	
BU 311# Business Finance	3			X	
BU 312# Problems in Financial Management	3			X	
BU 360 Introduction to Business Information Systems II	3			X	
BU 407# Security Analysis	3				X
<del>BU 408 Seminar in Finance</del> Delete	3				X
BU 412# The American Financial System	3				X
BU 441 Business Policy	3				X
BU xxx* Business course(s) outside the student's concentration.	0-6				X

Three Credits From the following five courses:

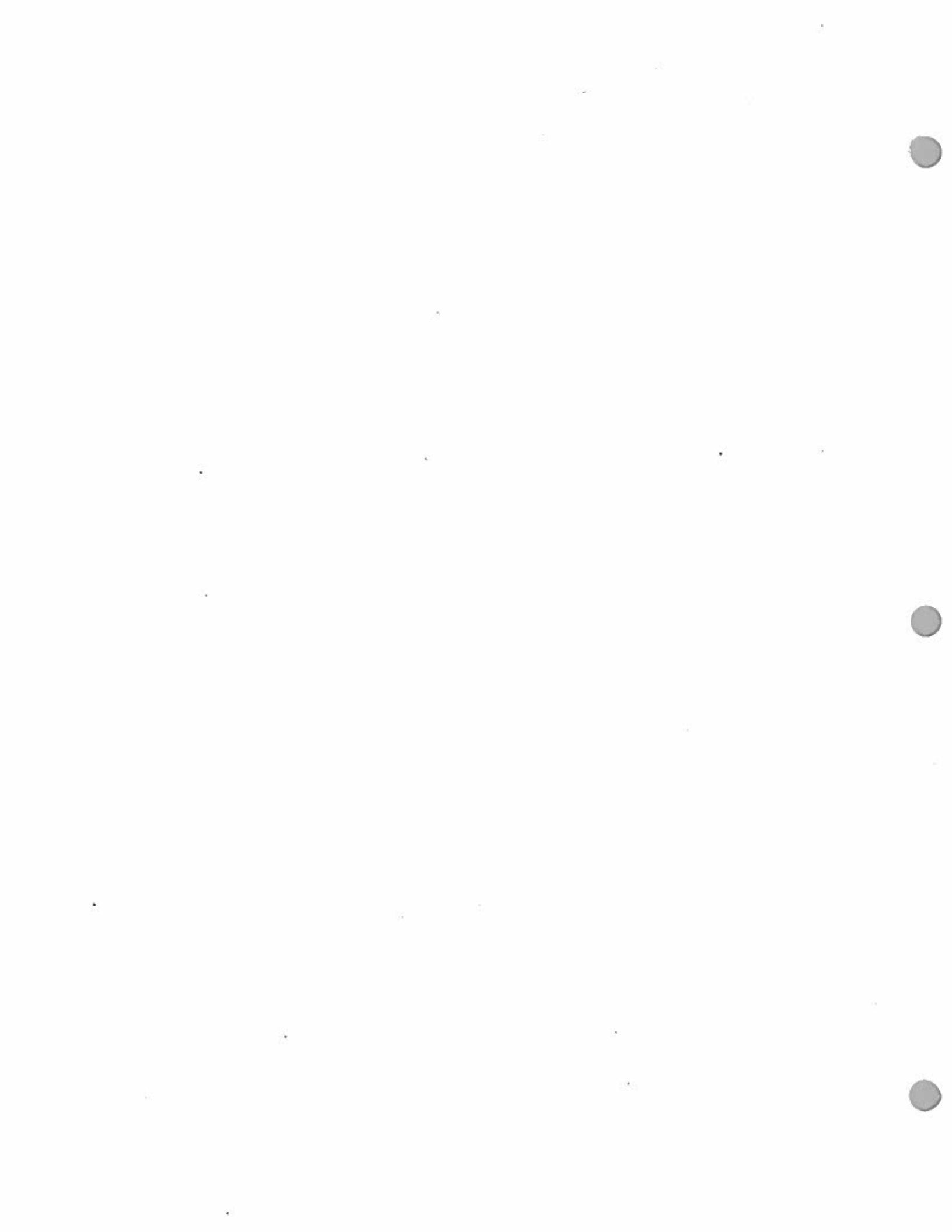
BU 413 Finance Seminar - Topics  
 Vary by Semester 3

BU 414 Finance Seminar - Banking 3

BU 415 Finance Seminar - International/  
 Banking 3

BU 416 Finance Seminar - Investments 3

BU 417 Finance Seminar - Real Estate 3



UNIVERSITY OF DELAWARE INTER-DEPARTMENTAL

# Memorandum

FACULTY SENATE

April 21, 1986

TO: James R. Soles, President  
University Faculty Senate

FROM: George Basalla, Chairperson  
Library Committee

*in Basalla*

SUBJECT: Photocopying in Morris Library

This is written in response to a resolution read by Senator John Morgan (March 14, 1986) concerning the quality of photocopying services in Morris Library.

The Library Committee met on April 7, 1986 to consider this resolution. After discussing the attached memorandum (dated March 21, 1986) from the Director of University Libraries on the matter, the Committee concluded that the quality of photocopying has suffered under the dual strains of Library renovation and overcrowding. Some unavoidable diminution of Library services are to be expected at a time when the Library's staff and physical facilities are being drastically relocated. The Committee felt that, despite these problems, the Library has made an heroic effort to maintain a high level of service for its patrons.

However, the Committee feels that the copying facilities in the Library are in need of improvement and believes that steps should be taken to insure that high-quality photocopying in the new, expanded Morris Library be given a high priority. Therefore, it has drafted a letter to Provost Campbell (attached) to that effect.

GB/wc  
Attachments





# University of Delaware

THE UNIVERSITY LIBRARY  
OFFICE OF THE DIRECTOR  
NEWARK, DELAWARE 19717-5267

(302) 451-2231

March 21, 1986

## MEMORANDUM

TO: George Basalla  
Chair, Faculty Senate Library Committee

FROM: Susan Brynteson *[Signature]*  
Director of Libraries

I am responding to the concerns of the Faculty Senate Library Committee and to the resolution introduced at the Faculty Senate on March 3, 1986, by Faculty Senator John Morgan concerning photocopying facilities in the Morris Library.

The library has been aware for some time that its photocopying facilities are inadequate, both its self-service copiers and its staffed Copy Center. The Morris Library has been greatly overcrowded for the past several years. A severe lack of space both for library users and library staff has been extremely visible. During this period of severe building constraints including space for staff, equipment, or electrical facilities, it has not been possible for the library to either add additional self-service copiers or to add to the facilities of the staffed Copy Center.

### Initial Plans

Upon completion of the second phase of the library construction project, that is the renovation of the existing Morris Library building, the library expects to have the space to provide appropriate photocopying facilities. Plans have been in place from the day the initial construction plans were drawn to move the Copy Center to the main floor, and to expand services. Plans are also underway to increase the number of self-service machines in the completed building.

### Temporary Location During Renovation

In late spring, the current staffed Copy Center containing one machine is expected to be moved to a temporary location on the main floor, specifically within the Interlibrary Loan unit. Services will not be expanded at this point, but the temporary location will afford more visibility and accessibility in a newly renovated area.

George Basalla  
Page Two  
March 21, 1986

Facilities To Expand

With the end of the renovation, the Copy Center facilities are expected to be expanded to include a high-speed, heavy duty, state-of-the-art copier and additional staff. The new facility will be on the main floor in a new area devoted to Copy Center functions.

In addition, during the fall 1986 semester, other copying functions are expected to be available. At the same time the Copy Center is expanded, additional self-service machines are expected to be placed at multiple locations throughout the building. The nature of these machines is still under review; maintenance service is a high priority and there is presently no maintenance service commercially available so there is no easy solution.

SB/lar

xc: James Soles, President, Faculty Senate  
Jack Levine, Library Faculty Senator  
Sue Golden, Assistant Director of Libraries for Technical Services  
and Automation  
Paul Anderson, Head, Access Services Department

# Memorandum



April 21, 1986

FACULTY SENATE

TO: L. Leon Campbell  
Provost

FROM: George Basalla, Chairperson *George Basalla*  
Library Committee

SUBJECT: Photocopying in Morris Library

At two of its meetings this past year the Faculty Senate Library Committee has discussed the quality of photocopying services in Morris Library. We understand that Library services must suffer to a degree when a major relocation of the Library's physical plant is taking place, and we appreciate the efforts made by the administration and staff at Morris to meet its patrons' needs under these trying conditions. While there is a general consensus that the present photocopying facilities in the Library are capable of considerable improvement, our concern is not with current photocopying facilities but with those which are appropriate and necessary in a new and expanded library.

Library photocopying is a service that touches a wide range of patrons -- from the undergraduate duplicating material for a term paper to graduate students and faculty researchers working on their projects. Therefore, we are writing this letter to announce formally our support for any effort undertaken by the Library to improve the quality of its photocopying facilities. Our Committee wishes you to understand that photocopying is high on the list of its priorities and that students and faculty alike will benefit from any policy or budgetary action you are able to take that will insure that Morris Library is able to provide superior photocopy service to its patrons in the future.

GB/wc



The following individuals have been nominated by the Nominating Committee for various Senate offices during academic year 1986-87.

President: Raymond A. Callahan, Barbara H. Settles

Vice President: Gerald R. Culley, Thomas F. Merrill

Secretary: Palaniappa Krishnan, Carol J. Vukelich

Chairperson, Coordinating Committee on Education: John S. Crawford,  
Robert J. Taggart

Member, Committee on Committees: Anna L. DeHaven, George F. W. Haenlein

Member, Rules Committee: Melinda J. Kwart, Bertram F. Levin

Members, Nominating Committee: John A. Bernstein, Robert A. Dalrymple,  
Michael F. Pohlen, Conrad N. Trumbore

\*\*\*\*\*

Biographies of the nominees are attached.





## NOMINEES FOR PRESIDENT

NAME: Raymond Callahan DEPARTMENT: History

RANK: Professor DATE OF HIRE (FULL-TIME): Sept. 1967

Have you served on Senate Committees in the past? ☒ Yes ☐ No

If you answered "Yes," please complete the following:

	COMMITTEE NAME	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)	
		ACADEMIC YEAR	
1.	Graduate Studies	1974-1976	Member, then chair
2.	Coord. Com. on Education	1981-1982	Chair
3.	Executive Committee	1985-1986	Vice President
4.			
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PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Department: Several terms on department executive committee; chair of department graduate committee (and the usual search and peer evaluation committees).

College: Humanities Research Coordinator 1970-1980.

University: Chair of C.O.P.E. task force on Department of English 1984-85.

NAME: Barbara H. Settles DEPARTMENT: Ind. & Family Studies

RANK: Professor DATE OF HIRE (FULL-TIME): 1968

Have you served on Senate Committees in the past? ☐ Yes ☐ No

If you answered "Yes," please complete the following:

	COMMITTEE NAME	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)	
		ACADEMIC YEAR	
1.	Select Comm. on Tenure	1986	Member
2.	Physical Plant	1985-1986	Member & rep. to BOT subcom. on building and grounds
3.	Adjunct Academic Affairs	1982-1984	Member
4.	Committee on Committees	1977-1979	Member and chair
5.	Committee on Committees	1974-1975	Member
6.	Fac. Welfare & Privileges	1972-1974	Member and chair
7.	Beverage Alcohol	1971	Member
8.			
9.			
10.			

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Social Science Dissertation Prize Subcommittee, 1985, Chair.  
Parking Subcommittee, 1973-1974, Member (exofficio).

My interest in faculty governance and responsibility for the quality of education and scholarly work has been constant during my association with the University of Delaware. In addition to the Senate committees I have also participated in developing a departmental structure for our College of Human Resources, and in a variety of programmatic committees both in the College and the University. For example, I have participated in the President's Task Force on Sex Education since its founding, the President's Commission on the Status of Women, the Women's Studies Executive Committee and program review, Women in Development Committee, and the Council on International Programs.

T

NO

NAME: Gerald R. Culley DEPARTMENT: Languages andRANK: Associate Professor DATE OF HIRE (FULL-TIME): 1969Thomas Merrill DEPARTMENT: EnglishProfessor DATE OF HIRE (FULL-TIME): 1969Have you served on Senate Committee in the last? ☒ Yes ☐ NoHave you served on Senate Committee in the last? ☒ Yes ☐ No

If you answered "Yes," please complete the following:

If you answered "Yes," please complete the following:

COMMITTEE NAME	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)	
	ACADEMIC YEAR	1978-1980
1. Instructional Resources	Chair, 1979-1980	
2. Student Life	Chair, 1981-1982	
3. Educ. Innov. & Planning	Member	
4.		
5.		
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COMMITTEE NAME	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)	
	ACADEMIC YEAR	1974-75
1. Graduate Committee	Member	
2. Promotions and Tenure	Member	
3. Nominating	Member	
4. Senator	Numerous years	
5.		
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PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Arts and Science Senator 1979-1980.  
 Faculty Committee on Computer-Based Instruction (Chair 1980-1984).  
 Provost's Computer Planning Task Force 1982-1983.  
 Acting Chair of Languages and Literature 1985-1986.

I was also Chair of the Educational Affairs Committee 1984-85.

# NOMINEES FOR SECRETARY

NAME: Palaniappa Krishnan DEPARTMENT: Agricultural Engineering  
 RANK: Assistant Professor DATE OF HIRE (FULL-TIME): June 1985

Have you served on Senate Committees in the past? ☐ Yes ☒ No  
 If you answered "Yes," please complete the following:

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY	
			(MEMBER, CHAIRPERSON, ETC.)	
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PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Education: Ph.D. University of Illinois Positions Held: June 1985-Present Ast. Prof.  
M.S. University of Hawaii U of D Agric. Engg.  
July 1983-June 1985 Ast. Prof.  
Agric. Engg.  
Oregon St. Univ.

Listed In: Who's Who in Frontier Science and Technology, 1st ed.  
Who's Who in the West, 19th ed.  
The Directory of Distinguished Americans, 3rd ed.  
Community Leaders of the World, Fall 1984  
Personalities of America, 3rd ed., Fall 1984  
Memberships in Professional Societies: American Society of Agricultural Engineers  
Offices and Committee Assignments Held in Professional and Honorary Societies:  
Member, Secretary, Vice Chairman, Chairman, American Society of Agricultural Engineers'  
Special Crops Processing Committee, 1982-1986.  
Vice Chairman, Chairman, ASAE Pacific Northwest Region Electric Power and Processing  
and Food Engineering Division, 1983-1984.  
Service: Faculty Advisor of Agricultural Engineering Technology Club, 1985-1987.  
Member of College Minority Committee, 1985-1986.

NAME: Carol Vukelich DEPARTMENT: Educational Development  
 RANK: Associate Professor DATE OF HIRE (FULL-TIME): September 1972

Have you served on Senate Committees in the past? ☒ Yes ☐ No  
 If you answered "Yes," please complete the following:

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY	
			(MEMBER, CHAIRPERSON, ETC.)	
1.	<u>Student &amp; Faculty Honors</u>	<u>1973-75, 1982-83</u>	<u>Member</u>	
2.	<u>Committee on Committees</u>	<u>1977-1979</u>	<u>Member</u>	
3.	<u>Undergraduate Studies</u>	<u>1980-1982</u>	<u>Chair</u>	
4.	<u>Graduate Studies</u>	<u>1984-1987</u>	<u>Member</u>	
5.	<u>Coord. Comm. on Education</u>	<u>1980-1982</u>	<u>Member</u>	
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PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

In addition to these Senate committees, I have served on the Commission on the Status of Women and the Winter Session Travel Experience Advisory Board.  
 Within the College, I have served numerous years on the Honor's Day Committee, the Promotion and Tenure Committee, the College Undergraduate Studies in Education Committee, and the Graduate Studies in Education Committee. I have chaired all of these committees except the Promotion and Tenure Committee. I have been the College's secretary for two different terms.  
 Within the Department, I have served on and chaired the Promotion and Tenure Committee, the Graduate Studies Committee, the Undergraduate Studies Committee and several search committees.

# NOMINEES FOR CHAIRPERSON OF COORDINATING COMMITTEE ON EDUCATION

NAME: John S. Crawford DEPARTMENT: Art History

RANK: Associate Professor DATE OF HIRE (FULL-TIME): 1969

Have you served on Senate Committee in the last? ☒ Yes ☐ No

If you answered "Yes," please complete the following:

IN WHAT CAPACITY  
(MEMBER, CHAIRPERSON, ETC.)

COMMITTEE NAME	ACADEMIC YEAR
1. <u>Educational Affairs</u>	<u>Member</u>
2. <u>International Studies</u>	<u>Chair</u>
3. <u>Promotions and Tenure</u>	<u>Member</u>
4. <u>Executive Committee</u>	<u>Secretary</u>
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

NAME: Robert J. Jaggart DEPARTMENT: Educational Studies

RANK: Associate Professor DATE OF HIRE (FULL-TIME): 9/70

Have you served on Senate Committee in the last? ☒ Yes ☐ No

If you answered "Yes," please complete the following:

IN WHAT CAPACITY  
(MEMBER, CHAIRPERSON, ETC.)

COMMITTEE NAME	ACADEMIC YEAR
1. <u>Executive Committee</u>	<u>85/86</u>
2. <u>Rules Committee</u>	<u>85/86</u>
3. <u>Library Committee</u>	<u>82-83/83-84</u>
4. <u>Coordinating Committee on Education (ex officio)</u>	<u>83-84</u>
5. <u>Committee on Undergraduate Admissions and Standing</u>	<u>80-81/81-82</u>
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

# NOMINEES FOR MEMBER, RULES COMMITTEE

NAME: Melinda Kwart DEPARTMENT: Accounting Department

RANK: Assistant Professor DATE OF NINE (FULL-TIME): Sept. 1984

Have you served on Senate Committees in the Past? ☐ Yes ☒ No

If you answered "Yes," please complete the following:

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)
1.			
2.			
3.			
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PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

I am inexperienced but enthusiastic.

Bertram Levin -- no biography submitted

# NOMINEES FOR MEMBER, COMMITTEE ON COMMITTEES

NAME: Anna Lee DeHaven DEPARTMENT: Advanced Nursing Science NAME: George F. W. Haenlein DEPARTMENT: Animal Sci. & Agric. Biochemistry

RANK: Professor DATE OF HIRE (FULL-TIME): 1969 RANK: Professor DATE OF HIRE (FULL-TIME): July 1, 1957

Have you served on Senate Committees in the past? ☒ Yes ☐ No Have you served on Senate Committees in the past? ☒ Yes ☐ No

If you answered "Yes," please complete the following: If you answered "Yes," please complete the following:

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)
1.	Graduate Studies	1970-1974	Member
2.	Graduate Studies	1981-1984	Member
3.	Academic Ceremonies	1974-1977	Member
4.	Research Committee	1978-1980	Member
5.	Committee on Committees	Jan.-Oct. '85	Replaced College Representative
6.			
7.			
8.			
9.			
10.			

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

- 1979 C.O.P.E. Committee on Theatre, member
- 1984 Dean's Evaluation Committee, member
- 1975-1976 Graduate Dean Search Committee, member
- 1980 Public Issues Steering Committee, member

Numerous College and Department committees (e.g., Promotions and Tenure, Search 1971, Graduate, Curriculum, Community Design 1969).

Residence Director, Vienna 1977 Studies Abroad Semester.

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)
1.	Visiting Scholars	1969-70	Member and chair
2.	Senate	1974	Member
3.	Committee on Committees	1984-86	Member (two years)
4.	Graduate Studies	1975-1976	Member; chair
5.	Computer Committee	1974	Member
6.	Coordinating Comm. on Educ.	1976	Member
7.	Research	1971-1973	Member
8.			
9.			
10.			

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

# NOMINEES FOR MEMBERS, NOMINATING COMMITTEE (p.1)

NAME: John Bernstein DEPARTMENT: History

RANK: Associate Professor DATE OF HIRE (FULL-TIME): 1970

Have you served on Senate Committees in the Past? ☒ Yes ☐ No

If you answered "Yes," please complete the following:

	COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY	
			(MEMBER, CHAIRPERSON, ETC.)	
1.	Academic Ceremonies	1984-85	Member	
2.	Academic Ceremonies	1985-86	Member	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Robert A. Dalrymple -- no biography submitted



# NOMINEES FOR MEMBERS, NOMINATING COMMITTEE (p.2)

NAME: Michael F. Pohlen DEPARTMENT: Business Administration NAME: Conrad Trumbore DEPARTMENT: Chemistry

RANK: Associate Professor DATE OF HIRE (FULL-TIME): September 1973 RANK: Associate Professor DATE OF HIRE (FULL-TIME): 1960

Have you served on Senate Committees in the Past? ☒ Yes ☐ No Have you served on Senate Committees in the Past? ☒ Yes ☐ No

If you answered "Yes," please complete the following: If you answered "Yes," please complete the following:

IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)		
COMMITTEE NAME	ACADEMIC YEAR	IN WHAT CAPACITY (MEMBER, CHAIRPERSON, ETC.)
1. Committee on Committees	1976/77/78	Member
2. Instructional Resources	1986	Chairperson
3. Coord. Comm. on Education	1986	Member
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

PLEASE USE THIS SPACE FOR ANY COMMENTS YOU MAY HAVE CONCERNING YOUR QUALIFICATIONS FOR THIS POSITION.

Have served twice on Arts and Science Senate (Vice President once) and many other University committees (e.g., Faculty Welfare and Privileges, Academic Freedom, Radiation Safety).

## COMMITTEE APPOINTMENTS FOR SENATE CONFIRMATION

ACADEMIC APPEALS, COMMITTEE ON

Member: Neal Phillips  
 Member: Gordon Di Renzo  
 Member: Connie Vickery

ACADEMIC CEREMONIES, COMMITTEE ON

Member: Charles Mason

ACADEMIC COMPLAINTS, UNIVERSITY REVIEW COMMITTEE ON

Member: Margaret Benner  
 Member: Roger Spacht  
 Alternate: Jean Pfalzer

ACADEMIC FREEDOM, COMMITTEE ON

Chair: James Magee  
 Member: Christopher Boorse  
 Member: J. Eugene Ball

ADJUNCT ACADEMIC AFFAIRS, COMMITTEE ON

Chair: James Sills  
 Member: Nina Kallmyer  
 Member: Paul Durbin  
 Member: Robert Eisenberger

BEVERAGE ALCOHOL, COMMITTEE TO REGULATE THE USE OF

Chair and member: James Fischer

BUDGET REVIEW, COMMITTEE ON

Member: Araya Debessay

COMPUTER COMMITTEE

Chair and member: James Damewood  
 Member: Steven Hastings  
 Member: James Richards  
 Member: David Usher

CULTURAL ACTIVITIES AND PUBLIC EVENTS, COMMITTEE ON

Chair: Ronald Vukelich

EDUCATIONAL INNOVATION AND PLANNING, COMMITTEE ON

Chair and member: Gary Lavery  
 Member: Antony Beris  
 Member: Judy Mc Innis

FACULTY WELFARE AND PRIVILEGES, COMMITTEE ON

Chair: Ludwig Mosberg  
 Member: Paul Sammelwitz  
 Member: Edward Schweizer

FINE ARTS AND EXHIBITIONS SUBCOMMITTEE

Chair: Rosemarie Bernardi  
 Member: Robert Bethke  
 Member: Bonnie Robb

GRADUATE STUDIES, COMMITTEE ON

Member: James Hawk  
 Member: David Barlow

INSTRUCTIONAL RESOURCES, COMMITTEE ON

Chair: Michael Pohlen  
 Member: Dallas Hoover  
 Member: Robert Taggart  
 Member: Sundaram Gunasekaran

INTERNATIONAL STUDIES, COMMITTEE ON

Chair and member: Ivo Dominguez  
 Member: George Haenlein  
 Member: Irvin Wisniewski

LIBRARY COMMITTEE

Chair and member: Alfred Wedel  
 Member: Hugh Frick  
 Member: Farley Grubb  
 Member: Anna De Haven

PERFORMING ARTS SUBCOMMITTEE

Chair: Peter Hill  
 Member: Carol Blumberg  
 Member: Cecil Dybowski

PHYSICAL PLANNING AND UTILIZATION, COMMITTEE ON

Chair and member: Kenneth Lomax  
 Member: Samuel Gaertner

PROMOTIONS AND TENURE, COMMITTEE ON

Chair and member: Jon Olson  
 Member: Charles Mason

RESEARCH, COMMITTEE ON

Chair and member: Peter Weil  
 Member: Sherry Kitto  
 Member: Frank South

RETIRING, RETIRED AND EMERITI FACULTY, COMMITTEE ON

Chair: Elizabeth Behning  
 Member: Leo Colchoir

STUDENT AND FACULTY HONORS, COMMITTEE ON

Member: Irwin Greenfield  
 Member: Sandra Winquist  
 Member: Wanda Mialkowski

COMMITTEE APPOINTMENTS FOR SENATE CONFIRMATION

Page 2

STUDENT LIFE, COMMITTEE ON

Chair and member: John Beer  
Member: John Schuster

UNDERGRADUATE ADMISSIONS AND STANDING,  
COMMITTEE ON

Chair and member: Anne Clark  
Member: Conrado Gempesaw  
Member: Mary Gallagher

UNDERGRADUATE RECORDS AND CERTIFICATION,  
COMMITTEE ON

Chair: George Frick  
Member: Palaniappa Krishnan

UNDERGRADUATE STUDIES, COMMITTEE ON

Chair: Charles Marler  
Member: Paul Durbin  
Member: Bonnie Scott  
Member: Herbert Kingsbury

VISITING SCHOLARS AND SPEAKERS,  
SUBCOMMITTEE ON

Chair: Frank Dilley  
Member: Bill Chambliss  
Member: Richard Sylves

/uc



# University of Delaware

COLLEGE OF URBAN AFFAIRS AND PUBLIC POLICY  
NEWARK, DELAWARE 19716

(302) 451-2394  
451-8405

March 27, 1986

## M E M O R A N D U M

To: Carl Toensmeyer, Chair  
Senate Coordinating Committee on Education

From: Jeffrey Raffel, Chair *JR/ma*  
Graduate Committee

Re: Consolidation of two graduate programs into a new  
interdisciplinary program in Vocational Studies.

At the meeting of March 18 the Graduate Committee approved the consolidation of two current programs into a new interdisciplinary, intercollege program leading to the Master of Science in Vocational Studies. The two current programs which would be phased out are: M.S. degree in Education (concentration: Occupational Teacher Education) offered by the Department of Educational Development, and M.S. degree in Home Economics Education offered by the Department of Individual and Family Studies.

The formal steps that need to be presented to the Coordinating Committee and the Senate for approval are the following, all with an effective date of September 1, 1986:

- 1) Disestablish the graduate major of Education (concentration of Occupational Teacher Education) leading to the M.S. degree.
- 2) Disestablish the graduate major of Home Economics Education leading to the M.S. degree.
- 3) Establish a new graduate major of Vocational Studies leading to the M.S. degree, as described in the proposal, for a 4 year provisional period, with review for permanent status to occur in the 1989-90 academic year.

I have attached copies of the proposal.

JAR/lil  
Enclosure

## PROPOSAL FOR RESTRUCTURING OCCUPATIONAL TEACHER EDUCATION AND HOME ECONOMICS EDUCATION MASTER OF SCIENCE PROGRAMS

(A proposed interdisciplinary Master of Science Program in Vocational Studies.)

### Program Overview

The proposed Master of Science Program in Vocational Studies is a interdisciplinary program among the Colleges of Agricultural Sciences, Education, and Human Resources. The program is administered by a Faculty Governing Committee consisting of full-time faculty with experience in home economics education, business education, the agricultural sciences, and industrial education. Graduate students are assigned to an appropriate department and a faculty advisor reflecting their vocational interests and objectives.

The interdisciplinary nature of the graduate program enables classroom teachers, guidance counselors, administrators, and other individuals with specific vocational interests to obtain a comprehensive understanding of the development, organization, and administration of vocational education from a local, state and national perspective. In this endeavor, the Faculty Governing Committee works cooperatively with the Department of Public Instruction, Delaware State College, Delaware Technical and Community College, and other governmental agencies/institutions in planning, implementing, and evaluating graduate education and research to meet the needs of students seeking graduate credentials and those in need of inservice and continuing education. The resulting mission of the graduate program is the balancing of the professional growth needs of vocational personnel and those needs of vocational education in the State of Delaware and the region.

### Background and Need for the Program

During 1984 and 1985 over a dozen national commissions and task forces scrutinized education in general and vocational education in particular. Of most concern was the need to promote reforms in the preservice and inservice training of both teachers and administrators.

Over 1200 vocational educators are involved in program development and implementation in Delaware. The University of Delaware offers the only graduate programs which address issues related to vocational education. This institution has also provided the major inservice and professional development activities for all vocational education teachers through the Colleges of Agricultural Sciences, Education and Human Resources.

Because of the overlapping of some program offerings in Occupational Education and Home Economics Education (i.e., areas of specialization), there was a strong need to assess the strengths of each program and to make related recommendations for improvement.

A coordinated program which combines the strengths of each of these colleges can provide the essential knowledges and skills in Vocational Studies, which have been lacking.

## Requirements for the Degree

The program requires courses in vocational education, research and a content area. The minimum total number of credits for the Master of Science degree is 30. Students may select a thesis option which requires an oral defense, or a field study option which requires the successful completion of a written comprehensive examination and an oral interview.

## Program Requirements

- I. Vocational Education Core: 9 credit hours
  - \*EDD 650 Foundations of Occupational Education
  - \*EDD 651 Organization, Administration of Occupational Education
  - \*EDD 652 Issues in Contemporary Occupational Education
- II. Professional/Technical Emphasis (content area): 9-12 credit hours
  - \*Credits in content area: 6-9 credits
  - \*Field Experience: 3-6 credits (not required in all programs)
- III. Research: 6-9 credit hours
  - \*Credits may be taken in Research, Research Methodology, Statistics, Thesis and Field Study.
  - \*EDD 869 Thesis or IFS 869 Thesis is required for the thesis option.
  - \*EDD 658 Field Study in Vocational Education is required for the field study option.
- IV. Free Electives: 3-6 credit hours

\*Those persons electing non-formal education emphases (e.g., cooperative extension) may enroll in an alternative course.

## Administration

Because of the interdisciplinary nature of the M.S. program in Vocational Studies, a Faculty Governing Committee, consisting of four faculty representatives, will be appointed as follows: Home Economics Education, College of Human Resources; Agricultural Education, College of Agricultural Sciences; Business Education, College of Human Resources and Industrial Education, College of Education. The Chairperson for the Faculty Governing Committee will be the full-time faculty member from the College of Education. The Chairperson will also serve as the Coordinator of the program. The Faculty Governing Committee will be administratively responsible to the University Council on Teacher Education through its Chairperson. Decisions relating to student admissions and financial matters will be made by the Committee.

Proposed M.S. in Vocational Studies

Area of Study  
Credits

	Vocational Education Research Option	Field Study Option	Home Economics Education Research Option
<u>Vocational Education Core</u>			
EDD 650	3	3	3
EDD 651	3	3	3
EDD 652	3	3	3
<u>*Professional/Technical Emphasis</u>			
Content Area	6-9	6-9	6-9
**Field Experience	3-6	3-6	3-6
<u>Research</u>			
Research Methods	3	3 (IFS 650)	3 (IFS 650)
Thesis	6 (EDD 869)		6 (IFS 869)
Field Study	3 (EDD 658)	3 (EDD 658)	
<u>Field Electives</u>	3-6	3-6	3-6

\*Designation of a professional/technical emphasis (content area) will vary with the background and interests of the student. Examples include Vocational Administration and Leadership, Guidance and Counseling, Special Needs, Computer Technology, Curriculum and Instruction or an emphasis in a vocational field such as: Business and Office, Home Economics, Trade and Industrial, and Agriculture.

\*\*Not required in all programs.



### Faculty Support

The following faculty members from the various colleges will be responsible for teaching core and related courses in Vocational Education, advising graduate students and providing inservice activities as needed:

Dr. Richard Dean Shippy, College of Agriculture  
Dr. Mary Lou Liprie, College of Human Resources  
Dr. James Morrison, College of Human Resources  
Dr. Lila Murphy, College of Human Resources  
Dr. Hester Stewart, College of Human Resources  
Faculty Member, Industrial Education,  
College of Education (New Hire)

### Financial Support

The Delaware State Legislature has provided funds for Occupational Teacher Education over the past ten years, currently support is at \$75,000 per year. A portion of these funds will be used to support vocational studies. Participating colleges will provide additional services such as advisement, facilities and services. The Faculty Governing Committee will submit an annual budget to the Provost and the Chair of the University Council on Teacher Education for supporting services and additional faculty services as needed.

### Summary Statement

We believe a quality graduate program in Vocational Studies for Delaware personnel must include:

1. Qualified faculty with educational and experiential backgrounds in vocational education.
2. An adequate number of faculty to offer core courses, provide supplementary courses, professional activities, and administration and advisement.
3. Adequate facilities for teaching, research, and inservice activities in vocational education.
4. Involvement with business, industry and service agencies.

### Developed By

Dr. Ralph Barwick  
College of Agricultural Sciences

Dr. Rita Fillos  
College of Education

Dr. Mary Lou Liprie  
College of Human Resources

Dr. James Morrison  
College of Human Resources

Dr. Lila Murphy  
College of Human Resources

Dr. Hester Stewart  
College of Human Resources



## PROPOSED GRADUATE POLICY STATEMENT

### Program Overview

The proposed Master of Science Program in Vocational Studies is an interdisciplinary program among the Colleges of Agricultural Sciences, Education, and Human Resources. The program is administered by a Faculty Governing Committee consisting of full-time faculty with experience in home economics, business and office, trade and industrial, and agricultural education. Graduate students are matched with an appropriate department and a faculty advisor reflecting their vocational interests and objectives.

The interdisciplinary nature of the graduate program enables classroom teachers, guidance counselors, administrators, and other individuals with specific vocational interests to obtain a comprehensive understanding of the development, organization, and administration of vocational education in secondary and post-secondary institutions. In this endeavor, the Faculty Governing Committee works cooperatively with the Department of Public Instruction, Delaware State College, Delaware Technical and Community College, and other governmental agencies/institutions in planning, implementing, and evaluating graduate education and research to meet the needs of students seeking graduate credentials and those in need of inservice education. The resulting mission of the graduate program is the balancing of the professional growth needs of vocational educators and those needs of vocational education in the State of Delaware and the region.

### Program Description

Students are required to complete a core of study focusing upon the historical development, contemporary issues and future trends in vocational education, and dimensions of leadership in both public and private educational systems. Students are permitted to update both technical and professional skills by participating in appropriate field experiences and completing formal study in program improvement, developing, implementing, and evaluating instructional strategies and curriculum design. Students may designate a professional/technical emphasis in such areas as Administration, Supervision and Leadership, Guidance and Counseling, Special Needs, Computer Technology, Curriculum and Instruction or an emphasis in a vocational field such as: Business and Office, Home Economics, Trade and Industrial, or Agriculture. This interdisciplinary program enables students to study and interact with educators in a variety of vocational fields while simultaneously performing in-depth studies reflective of specific vocational interests.

### Admission Policy

The following items are required for admission:

1. 2.5 undergraduate index - overall
2. 3.0 undergraduate index in Major field
3. 3.0 graduate index, if applicable
4. Graduate Record Examination scores of 1050
5. 3 letters of recommendation from recent professional references
6. Transcripts from all previous undergraduate and graduate work

A minimum of 500 is required on the TOEFL exam for applicants from foreign countries.

#### Program Requirements

- I. Vocational Education Core: 9 credit hours
  - \*EDD 650 Foundations of Occupational Education
  - \*EDD 651 Organization and Administration of Occupational Education
  - \*EDD 652 Issues in Contemporary Occupational Education
- II. Professional/Technical Emphasis (content area): 9-12 credit hours
  - \*Credits in content area: 6-9 credits
  - \*Field Experience: 3-6 credits (not required in all programs)
- III. Research: 6-9 credit hours
  - \*Credits may be taken in Research, Research Methodology, Statistics, Thesis and Field Study
  - \*EDD 869 Thesis or IFS 869 Thesis is required for the thesis option
  - \*EDD 658 Field Study in Vocational Education is required for the field study option
- IV. Free Electives: 3-6 credit hours

\*Those persons electing non-formal education emphases (e.g., cooperative extension) may enroll in an alternative course.

#### Financial Support

The Delaware State Legislature has provided funds for this program over the past ten years, averaging approximately \$75,000 per year. These funds will contribute to the support of the program. Participating colleges will provide additional services such as advisement, facilities and services. The Faculty Governing Committee will submit an annual budget to the Provost and the Chair of the University Council on Teacher Education for supporting services and additional faculty services as needed.

#### Administration

Because of the interdisciplinary nature of the M.S. program in Vocational Studies, a Faculty Governing Committee, consisting of four faculty representatives, will be appointed as follows: Home Economics Education, College of Human Resources; Agricultural Education, College of Agricultural Science; Business Education, College of Human Resources and Industrial Education, College of Education. Chairperson for the Faculty Governing Committee will be the full-time faculty member from the College of Education. The Chairperson will also serve as the Coordinator of the program. The Faculty Governing Committee will be administratively responsible to the University Council on Teacher Education through its Chairperson. Decisions relating to student admissions and financial matters will be made by the Committee.

### Degree Requirements

The program requires courses in Vocational Education, research and a content/technical area. The minimum total number of credits for the Master of Science degree is 30. Students may select a thesis option which requires an oral defense, or a field study option which requires the successful completion of a written comprehensive examination and an oral interview.

### Student Review Process

Upon acceptance into the program each student will be assigned an advisor in their area of interest. Upon completion of nine credit hours the student will have a program review at which time the thesis or field study advisor and other Committee members will be identified.

Graduate Faculty

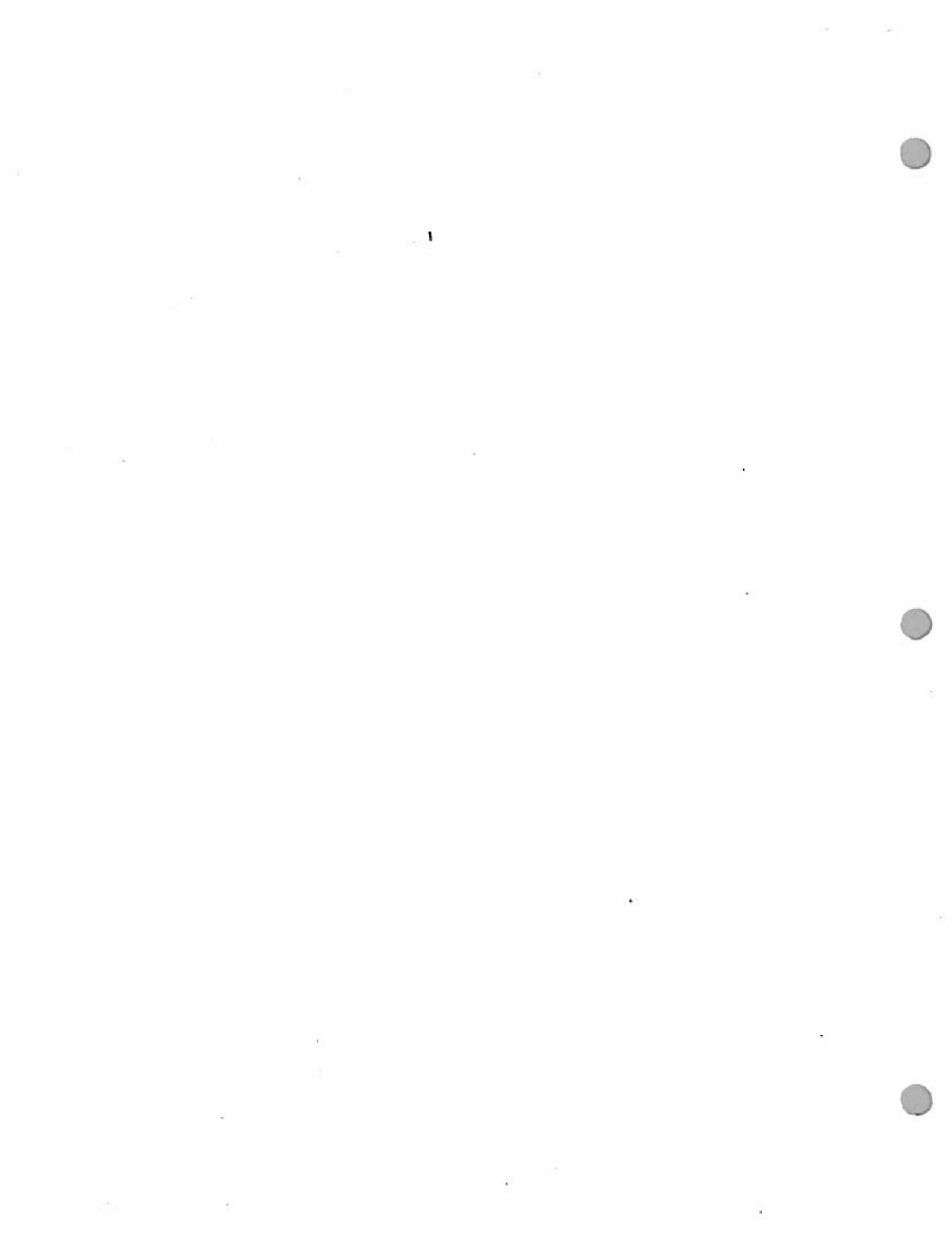
Richard D. Shippy, Ed.D. (Pennsylvania State) Associate Professor  
and Assistant Dean for Instruction: Agricultural Education

James L. Morrison, Ed.D. (Temple University) Professor: Consumer Economics,  
Occupational Education.

Lila C. Murphy, Ph.D. (Ohio State) Professor: Administration, leadership  
development, Vocational Education.

Mary Lou Liprie, Ph.D. (Ohio State) Associate Professor: Home Economics  
Education, teacher education, curriculum and foundations.

Hester R. Stewart, Ph.D. (Southern Illinois) Associate Professor: Home  
Economics Education, supervision, curriculum and instruction in secondary  
education.





# University of Delaware

SCHOOL OF LIFE AND HEALTH SCIENCES  
NEWARK, DELAWARE 19716

(302) 451-2281

## MEMORANDUM

February 10, 1986

TO: Dr. M. Statson, Chair  
Educational Affairs Committee

FROM: David W. Smith, Special Assistant to the Dean  
for Secondary Science Education

SUBJECT: Proposal for Major in Earth Science Education

With this memorandum I present a revised proposal for the establishment of a new major, "Earth Science Education." The purpose of this proposal is to meet a demand for an increased number of Earth Science teachers in the State of Delaware and in surrounding states. This demand is both current and projected, based on my own experience in coordinating secondary science education at this University and on my conversations with education officials, from school principals to the State Secondary Science Supervisor. There are a number of specific points to be made about the proposal.

1. The College of Arts and Science currently offers corresponding programs leading to certification in Biology, Chemistry, and Physics (in addition to several other, non-science areas). An Earth Science program would be a significant response to State and student requests by rounding out our science education offerings. University of Delaware students who wish to obtain Earth Science certification only in the State of Delaware may do so presently by taking the appropriate courses to satisfy the State requirements. The other science education courses of study are, however, so-called Approved Programs, examined and accredited by NASDTEC, a national agency. The primary advantage of a NASDTEC-endorsed Approved Program is that such a program carries it with eligibility for certification in 27 states in addition to Delaware.
2. As you will see by examining the specifics of the proposal, the program is clearly interdisciplinary, although the majority of the courses are within the departments of Geology and Geography. Earth Science programs are inherently interdisciplinary, as indicated by the relevant NASDTEC standards (attached.)

3. Earlier versions of this proposal have already been circulated to six different academic units on campus. The current document represents the net result of several months of discussion. The Geology and Geography departments have been consulted in greatest detail, since the majority of the major requirements will be in these two departments. The Geology department has taken a formal vote on the proposal as it now stands and that faculty has endorsed it overwhelmingly. I have had several conversations with the Geography department Chair and his designate; they also support the proposal.
4. The specification of courses for inclusion in the program includes a consideration for the level of the course as well as the content. It is important to note that in several instances the courses required are not the lowest level introductions to the fields. In particular I note the requirement that students majoring in this program take the intermediate level Chemistry and Physics sequences.
5. The "Professional Education" requirements (22 credits total) are the same as those for the other three science education Approved Programs. This list of courses is approved by NASDTEC as well.

cc: F. Swain, Chair Geology  
T. Maierding, Geography  
J. Miller, Physics  
J. Burneater, Associate Chair Chemistry  
M. Tripp, Director Life Science  
C. Thoroughgood, Dean Marine Studies  
J. Del Fattore, Chair Arts and Science Secondary  
Education Coordinators

## PROPOSED MAJOR IN EARTH SCIENCE EDUCATION

### MAJOR REQUIREMENTS

- |  |      |  |
|--|------|--|
| GEO 105 (4) General Geology                            | -OR- | GEO 107 (4) General Geology I                    |
| GEO 106 (4) General Geology                            |      | GEO 108 (4) General Geology II                   |
| GEO 204 (4) Physical Mineralogy<br>and Crystallography |      |  |
| GEO 302 (4) Stratigraphic and Sedi-<br>mentary Geology |      |  |
| GEO 432 (3) Recent Sedimentary<br>Environments         | -OR- | GEO 467 (3) Field Geology in<br>the Appalachians |
| G 101 (3) Physical Geography                           |      |  |
| G 220 (3) Meteorology                                  |      |  |
| G 235 (3) Conservation of<br>Natural Resources         |      |  |
| G 443 (3) Climatic Geomorphology                       | -OR- | G 255 (3) Applied Climatology                    |
| CMS 200 (3) Introduction to<br>Marine Studies          |      |  |
| PS 133 (4) Introduction to Astronomy                   |      |  |

### RELATED COURSES IN THE COLLEGE

- PS 201 (4) General Physics I
- PS 202 (4) General Physics II
- C 103 (4) General Chemistry
- B 195 (3) Biological Evolution
- M 221 (3) Calculus I

University requirements, College requirements and Professional Studies requirements are the same as for other B.A. Science Education programs in the College of Arts and Science. These requirements are summarized on the following page. The Professional Studies component of all Arts and Science Teacher Education programs has recently been revised and is currently under review within the University. The requirements listed below for the Earth Science program are the revised requirements. If, for some reason, the revisions are not approved, then the Earth Science program will go forward with the same Professional Studies requirements as the other Science Education programs within the College of Arts and Science.



## E-110 Critical Reading and Writing

### 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.

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

- 3<sup>1</sup> **Group A.** Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.
- 3<sup>1</sup> **Group B.** The study of culture and institutions over time. Twelve credits representing at least two areas.
- Group C.** Empirically based study of human beings and their environment. Twelve credits representing at least two areas.
- 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.

12<sup>1-4</sup>

12<sup>1-4</sup>

12<sup>1-4</sup>

13<sup>1-4</sup>

### Professional Studies

- EDS 301(3) Psychological Foundations of Education
- EDS 302(3) Educational Psychology
- EDS 201(3) Education in Society
- SC 491(3) Science Materials and Approaches
- EDD 400(9) Student Teaching
- (1) credit of upper level reading instruction at 300 level

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

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

### SUMMARY

Major Requirements	38 credits
Related Courses in College	18 credits
University Requirement	3 credits
College Requirements	36 credits*
Language Requirement	0-12 credits
Electives	0-7 credits
<u>Professional Studies</u>	<u>22 credits</u>
Total	124 <del>124</del> credits

(variation in credit total and in number of electives depends on the number of courses a student takes to fulfill the language requirement)

\*Note that Group D requirements are satisfied by the completion of the interdisciplinary major courses, hence the total here of 36, not 49 credits.

STANDARD IV The program shall require study and experiences designed to develop the laboratory skills necessary to prepare experiments and demonstrations.

#### Earth and Space Science

STANDARD I The program shall require study of mathematics and the basic sciences (biology, chemistry, and physics), and a specialization in one of the earth and space sciences (astronomy, geology, meteorology and/or oceanography) with supporting work in the other three.

STANDARD II The program shall require study designed to develop the ability to view and present earth science as an interdisciplinary science involving the study of the lithosphere, atmosphere, and hydrosphere and their relationship to man's environment.

STANDARD III The program shall require experiences assuring a mastery of technique in using the local environment as a laboratory in addition to laboratory demonstrations, experimentation, and research.

#### General Science

STANDARD I The program shall require study of the basic principles of biology, chemistry, physics, and earth and space science with a specialization in one of the disciplines.

STANDARD II The program shall require study of the interrelationships among the sciences and the history and philosophy of science.

STANDARD III The program shall require experiences in the use of teaching aids and laboratory equipment of all science fields.

#### Physical Science

STANDARD I The program shall require study in chemistry and physics which provides for a balance between the two disciplines.

