

UNIVERSITY FACULTY SENATE

SUMMARY OF AGENDA

FEBRUARY 6, 1995

- I. **ADOPTION OF THE AGENDA**
- II. **APPROVAL OF THE MINUTES:** December 5, 1994
- III. **REMARKS BY UNIVERSITY PROVOST SCHIAVELLI**
- IV. **ANNOUNCEMENTS:** Senate President McLaughlin

**ANNOUNCEMENTS FOR CHALLENGE**

1. Revision of the M.S. in Agricultural Economics
2. Revision of the major in Agricultural Economics:
  - a. Production and Management
  - b. Resource Economics and Rural Development
3. Revision of the B.A.S. in Agricultural Engineering Technology
4. Revision of the major in Agricultural Business Management
5. Revision of the B.A. in Foreign Languages and Literatures:
  - a. Four Languages
  - b. Three Languages
6. Revision of the B.A. in Latin Education
7. Revision of the minor in Spanish
8. Revision of the minor in German
9. Revision of the B.A. in Mathematical Sciences
10. Revision of the B.S. in Mathematical Sciences to delete concentrations in:
  - a. Mathematics of Computation
  - b. Mathematics of Management Sciences and Operations Research
  - c. Mathematical Physics/Applied Mathematics
11. Revision of the B.A. in Mathematics Education
12. Revision to the Advanced Honors Certificate and First-Year Honors Certificate.
13. Change in name of the Department of Civil Engineering to the Department of Civil and Environmental Engineering
14. New minor in Coaching Science
15. Revision to the Faculty Handbook

V. **OLD BUSINESS** - None

VI. **NEW BUSINESS**

- A. Recommendation to declare the week of April 16-23 as "Earth Week"
- B. Recommendation for permanent status of the major in Apparel Design leading to the B.S. in Human Resources

Summary of Agenda

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- C. Recommendation for provisional approval of a new degree program entitled Bachelor of Environmental Engineering
- D. Recommendation for the approval of two graduate degrees: M.S. in Applied Mathematics and Ph.D. in Applied Mathematics
- E. Recommendation for provisional approval of a new major in Italian Education leading to the B.A. Degree in Italian Education and the Honors B.A. in Italian Education
- F. Introduction of new business



# University of Delaware

UNIVERSITY FACULTY SENATE  
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NEWARK, DELAWARE 19716

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January 26, 1995

TO: All Faculty Members  
FROM: Thomas S. Angell, Vice President  
University Faculty Senate

SUBJECT: Regular Faculty Senate Meeting, February 6, 1995

In accordance with Section IV, paragraph 6 of the Constitution, the regular meeting of the University Faculty Senate will be held on Monday, February 6, 1995 at 4:00 p.m. in room 110 Memorial Hall. The agenda will be as follows:

## AGENDA

- I. Adoption of the Agenda.
- II. Approval of the minutes of the Senate meeting of December 5, 1994.
- III. Remarks by University Provost Schiavelli.
- IV. Announcements: Senate President McLaughlin  
Announcements for Challenge
  1. Revision of the M.S. in Agricultural Economics (Attachment 1)
  2. Revision of the major in Agricultural Economics: (Attachment 2)
    - a. Production and Management
    - b. Resource Economics and Rural Development
  3. Revision of the B.A.S. in Agricultural Engineering Technology (Attachment 3)
  4. Revision of the major in Agricultural Business Management (Attachment 4)
  5. Revision of the B.A. in Foreign Languages and Literatures: (Attachment 5)
    - a. Four Languages
    - b. Three Languages
  6. Revision of the B.A. in Latin Education (Attachment 6)

7. Revision of the minor in Spanish (Attachment 7)
  8. Revision of the minor in German (Attachment 8)
  9. Revision of the B.A. in Mathematical Sciences (Attachment 9)
  10. Revision of the B.S. in Mathematical Sciences to delete concentrations in: (Attachment 10)
    - a. Mathematics of Computation
    - b. Mathematics of Management Sciences and Operations Research
    - c. Mathematical Physics/Applied Mathematics
  11. Revision of the B.A. in Mathematics Education (Attachment 11)
  12. Revision to the Advanced Honors Certificate and First-Year Honors Certificate (Attachment 12)
  13. Change in name of the Department of Civil Engineering to the Department of Civil and Environmental Engineering (Attachment 13)
  14. New minor in Coaching Science (Attachment 14)
  15. Revision to the Faculty Handbook, Section O, under "Leave of Absence," subsection Application Procedure, paragraph (b), page III-39 (Attachment 15)
- V. Old Business - None
- VI. New Business
- A. Recommendation from the Faculty Senate Executive Committee to declare the week of April 16-23 as "Earth Week."
- RESOLVED, that the University Faculty Senate designate and proclaim the week of April 16-23 as "Earth Week" 1995, and that week should be used to encourage activities, including (when appropriate) classroom presentations, promoting preservation of the global environment.
- B. Recommendation from the Committee on Undergraduate Studies (R. Singleton, Chairperson), with the concurrence of the Coordinating Committee on Education (H. Hall, Chairperson), for permanent status of the major in Apparel Design, leading to the B.S. in Human Resources. (Attachment 16)
- WHEREAS, the major in Apparel Design has proved to be a successful program during its provisional period, be it therefore

RESOLVED, that the Faculty Senate approves the permanent establishment of the major in Apparel Design leading to the B.S. in Human Resources.

- C. Recommendation from the Committee on Undergraduate Studies (R. Singleton, Chairperson), with the concurrence of the Coordinating Committee on Education (H. Hall, Chairperson), for provisional approval of a new degree program entitled Bachelor of Environmental Engineering. (Attachment 17)

WHEREAS, for more than 20 years the Civil Engineering Department has had a concentration in Environmental Engineering, and

WHEREAS, the Department has adequate faculty on its staff to support an undergraduate program in addition to its current M.S. and Ph.D. programs in Environmental Engineering, be it therefore

RESOLVED, that the Faculty Senate approves provisionally, for four years, the establishment of a new degree program entitled Bachelor of Environmental Engineering.

- D. Recommendation from the Committee on Graduate Studies (K. Koford, Chairperson), with the concurrence of the Coordinating Committee on Education (H. Hall, Chairperson), for the establishment of two graduate degrees: M.S. in Applied Mathematics and Ph.D. in Applied Mathematics. (Attachment 18)

WHEREAS, the Department of Mathematics has offered graduate programs in Applied Mathematics for many years, and has had numerous graduate students receive degrees in these programs, and

WHEREAS, the University does not currently list a graduate degree in Applied Mathematics on the diploma or transcript, or in the Synopsis of Graduate Programs in the Graduate Catalog, be it therefore

RESOLVED, that the University Faculty Senate approves the establishment of the following degrees:

M.S. in Applied Mathematics  
Ph.D. in Applied Mathematics

- E. Recommendation from the Committee on Undergraduate Studies (R. Singleton, Chairperson), with the concurrence of the Coordinating Committee on Education (H. Hall, Chairperson), for provisional approval of a new major leading to the B.A. in Italian Education and the Honors B.A. in Italian Education. (Attachment 19)

WHEREAS, there is a demand for certification to teach Italian at the secondary school level, and

WHEREAS, the necessary faculty are already in place and the required courses already offered on a regular basis, be it therefore

RESOLVED, that the University Faculty Senate approves provisionally, for four years, the establishment of a new major leading to the B.A. in Italian Education and the Honors B.A. in Italian Education, effective September 1, 1995.

- F. Such items as may come before the Senate. (No motion introduced under new business, except a motion to refer to committee, shall be acted upon until the next meeting of the Senate.)

TA/rg

Attachments: Committee Activities Report

1. Revision of the M.S. in Agricultural Economics
2. Revision of the major in Agricultural Economics
3. Revision of the B.A.S. in Agricultural Engineering Technology
4. Revision of the major in Agricultural Business Management
5. Revision of the B.A. in Foreign Languages and Literatures
6. Revision of the B.A. in Latin Education
7. Revision of the minor in Spanish
8. Revision of the minor in German
9. Revision of the B.A. in Math Sciences
10. Revision of the B.S. in Math Sciences
11. Revision of the B.A. in Math Education
12. Revision to the Advanced Honors Certificate and First-Year Honors Certificate
13. Change in name of the Department of Civil Engineering
14. Minor in Coaching Science
15. Revision to the Faculty Handbook
16. Major in Apparel Design
17. Bachelor of Environmental Engineering
18. M.S. and Ph.D. in Applied Mathematics
19. New major in Italian Education

# COMMITTEE ACTIVITIES REPORT

## Diversity and Affirmative Action, Committee on (Hilton Brown)

Over the past year and a half lengthy discussions have taken place about changing the charge and name of this committee. We have decided to leave both intact. We are undertaking a five-year review of the University's Affirmative Action Plan.

## Graduate Studies, Committee on (Kenneth Koford)

1. Discussing permanent approval of P.T.T.P.
2. Discussing policies regarding academic probation and dismissal
3. Discussing graduate programs in Environmental Science

## Library Committee (Antony Beris)

Discussing the impact and the transition to an electronic library.

## Student and Faculty Honors, Committee on (Robert Taggart)

1. Discussing use of E-mail for Excellence in Teaching and Excellence in Undergraduate Academic Advising awards
2. Discussing faculty eligibility for national C.A.S.E. award

## Student Life, Committee on (Bonnie Kime Scott)

1. Discussing excused student absences
2. Discussing revision to student code of conduct
3. Discussing student handbook revisions in response to Freedom of Expression resolution
4. Discussing search for V.P. of Student Affairs

## Undergraduate Studies, Committee on (Rivers Singleton)

Discussing separation of the School of Life and Health Sciences

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**PRESENT CATALOG ENTRY**

**PROPOSED CHANGE**

FREC 801 Advanced Food Marketing

FREC 801 Applied Demand and Marketing Analysis

A study of the food industry, conduct performance and its effect on pricing, supply and demand in the industry.

This course deals with research techniques and procedures in applied economics with focus on empirical applications of economics theory and econometric tools in consumer demand and marketing analysis.

**ATTACHMENT 2a**

**FOOD AND RESOURCE ECONOMICS • COLLEGE OF AGRICULTURAL SCIENCES**

**DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE**  
**MAJOR: AGRICULTURAL ECONOMICS**  
**CONCENTRATION: PRODUCTION AND MANAGEMENT**

| CURRICULUM  | CREDITS*         |
|---|------------------|
| <b>UNIVERSITY REQUIREMENTS</b>  |                  |
| ENGL 110 Critical Reading and Writing**   | 3 <sup>1</sup>   |
| Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.† | 3 <sup>1-4</sup> |
| <b>COLLEGE REQUIREMENTS</b>   |                  |
| Mathematics and Computer Science  |                  |
| Mathematics course (MATH 115 or higher level)†  | 3 <sup>1</sup>   |
| Computer Science course (FREC 222 or equivalent)  | 3 <sup>1</sup>   |

135

A maximum of three credits of Independent Study in Food and Resource Economics and a maximum of six credits of Independent Study in all areas, including Food and Resource Economics, may be counted toward a degree.

| ELECTIVES   | CREDITS*             |
|---|----------------------|
| Electives   | 11-15 <sup>1-4</sup> |
| 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.) |                      |
| <b>CREDITS TO TOTAL A MINIMUM OF</b>  | <b>130</b>           |

|  |                     |
|--|---------------------|
| <b>Agricultural and Biological Sciences</b>  | 9-12 <sup>1-2</sup> |
| Minimum of one course outside the student's major in three of the following areas: Food and Resource Economics, Food Science, Agricultural Engineering, Animal Science, Entomology and Applied Ecology, Plant and Soil Sciences, or Biology. |                     |
| <b>Literature and Arts</b>   | 6 <sup>2</sup>      |
| Six credits selected from the general areas of English, Art, Art History, Communication, Music, Theatre, or Foreign Language.  |                     |
| <b>Social Sciences and Humanities</b>  | 9 <sup>2</sup>      |
| 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.           |                     |
| <b>Physical Sciences</b>   | 8-12                |
| Minimum of eight credits selected from one of the following areas: Chemistry, Physics, Geology, or Physical Science.   |                     |
| <b>MAJOR REQUIREMENTS</b>  |                     |
| <b>External to the College</b>   |                     |
| COMM 312 Oral Communication in Business  | 3 <sup>4</sup>      |
| ENGL 312 Written Communications in Business  | 3 <sup>1</sup>      |
| ECON 151 Introduction to Microeconomics  | 3-1,2               |
| ECON 152 Introduction to Macroeconomics  | 3-1,2               |
| ECON 302 Money, Credit and Banking   | 3-4                 |
| ECON 300 Intermediate Macroeconomic Theory   | 3-4                 |
| ECON 303 Intermediate Macroeconomic Theory   | 3-4                 |
| Two additional courses offered by the College of Business and Economics at the 300 level or higher.‡   | 6-3,4               |
| <b>Within the Department of Agriculture and Natural Resources</b>  |                     |
| FREC 150 Elementary Agricultural Economics: Applications   | 3 <sup>1</sup>      |
| FREC 201 Records and Accounts  | 3 <sup>2</sup>      |
| FREC 215 Introduction to Data Analysis   | 3 <sup>1</sup>      |
| FREC 240 Quantitative Methods in Agricultural Economics  | 3 <sup>2</sup>      |
| FREC 465 Seminar   | 1 <sup>4</sup>      |
| Seven courses at the 400 level or above with at least two in each of the following general areas:  |                     |
| 1. Marketing/International Trade and Fiber Marketing   | 3-3,4               |
| FREC 404 Food Marketing  | 3-3,4               |
| FREC 410 International Agricultural Trade  | 3-3,4               |
| FREC 441 Futures Management and Options Markets  | 4-3,4               |
| 2. Production/Management   | 3-3,4               |
| FREC 403 Production Economics  | 3-3,4               |
| FREC 406 Agricultural Policy   | 3-3,4               |
| FREC 408 Research Methods  | 3-3,4               |
| FREC 427 Agricultural Extension  | 3-3,4               |
| 3. Resources/Development   | 3-3,4               |
| FREC 420 Agriculture in Economic Development   | 3-3,4               |
| FREC 424 Resource Economics—Theory and Policy  | 3-3,4               |
| FREC 429 Rural Economic Development—Theory and Policy  | 3-3,4               |
| FREC 444 Economics of Environmental Management   | 3-3,4               |
| The requirements for the major in Agricultural Economics must be met. In addition, the following courses must be taken:  |                     |
| FREC 350 Farm Management   | 3 <sup>3</sup>      |
| FREC 403 Production in Economics   | 3-3,4               |
| Agricultural Economics (FREC) courses required for the Agricultural Economics major may be used to satisfy requirements for the Production and Management concentration.   |                     |
| In addition to the Business and Economics courses required for the Agricultural Economics major, the following courses must be taken:  |                     |
| BUAD 309 Management and Organizational Behavior  | 3-3,4               |
| BUAD 382 International Business Management   | 3-3,4               |
| ECON 415 Economic Forecasting  | 3-3,4               |
| STAT 201 Introduction to Statistics I  | 3-1,2               |
| STAT 202 Introduction to Statistics II   | 3-1,2               |
| FREC 405, FREC 435, FREC 630, and Independent Study may not be counted in the seven courses.   |                     |

**DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE**  
**MAJOR: AGRICULTURAL ECONOMICS**  
**CONCENTRATION: RESOURCE ECONOMICS AND RURAL DEVELOPMENT**

| CURRICULUM   | CREDITS*            |
|--|---------------------|
| <b>UNIVERSITY REQUIREMENTS</b>   |                     |
| ENGL 110 Critical Reading and Writing**  | 3 <sup>1</sup>      |
| Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.†  | 3 <sup>1-4</sup>    |
| <b>COLLEGE REQUIREMENTS</b>  |                     |
| <b>Mathematics and Computer Science</b>  |                     |
| Mathematics course (MATH 115 or higher level)†   | 3 <sup>1</sup>      |
| Computer Science course (FREC 222 or equivalent)   | 3 <sup>1</sup>      |
| <b>Agricultural and Biological Sciences</b>  | 9-12 <sup>1,2</sup> |
| Minimum of one course outside the student's major in three of the following areas: Food and Resource Economics, Food Science, Agricultural Engineering, Animal Science, Entomology and Applied Ecology, Plant and Soil Sciences, or Biology. |                     |
| <b>Literature and Arts</b>   | 6 <sup>2</sup>      |
| Six credits selected from the general areas of English, Art, Art History, Communication, Music, Theatre, or Foreign Language.  |                     |
| <b>Social Sciences and Humanities</b>  | 9 <sup>2</sup>      |
| 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.           |                     |
| <b>Physical Sciences</b>   | 8 <sup>1</sup>      |
| Minimum of eight credits selected from one of the following areas: Chemistry, Physics, Geology, or Physical Science.   |                     |
| <b>MAJOR REQUIREMENTS</b>  |                     |
| <b>External to the College</b>   |                     |
| COMM 312 Oral Communication in Business  | 3 <sup>4</sup>      |
| ENGL 312 Written Communications in Business  | 3 <sup>1</sup>      |
| ECON 151 Introduction to Microeconomics  | 3-1,2               |
| ECON 152 Introduction to Macroeconomics  | 3-1,2               |
| ECON 302 Money, Credit and Banking   | 3-4                 |
| ECON 300 Intermediate Macroeconomic Theory   | 3-4                 |
| ECON 303 Intermediate Macroeconomic Theory   | 3-4                 |
| Two additional courses offered by the College of Business and Economics at the 300 level or higher.‡   | 6-3,4               |
| <b>Within the Department of Agriculture and Natural Resources</b>  |                     |
| FREC 150 Elementary Agricultural Economics: Applications   | 3 <sup>1</sup>      |
| FREC 125 Records and Accounts  | 3 <sup>2</sup>      |
| FREC 201 Records and Accounts  | 3 <sup>2</sup>      |
| FREC 215 Introduction to Data Analysis   | 3 <sup>1</sup>      |
| FREC 240 Quantitative Methods in Agricultural Economics  | 3 <sup>2</sup>      |
| FREC 465 Seminar   | 1 <sup>4</sup>      |
| Seven courses at the 400 level or above with at least two in each of the following general areas:  |                     |
| 1. Marketing/International Trade and Fiber Marketing   | 3-3,4               |
| FREC 404 Food Marketing  | 3-3,4               |

**ATTACHMENT 2b**

|   |                      |
|---|----------------------|
| FREC 410 International Agricultural Trade   | 3-3,4                |
| FREC 441 Futures Management and Options Markets   | 4-3,4                |
| <b>2. Production/Management and Options Markets</b>   |                      |
| FREC 403 Production Economics   | 3-3,4                |
| FREC 406 Agricultural Policy  | 3-3,4                |
| FREC 408 Research Methods   | 3-3,4                |
| FREC 427 Agricultural Extension   | 3-3,4                |
| <b>3. Resources/Development and Financial Management</b>  |                      |
| FREC 420 Agriculture in Economic Development  | 3-3,4                |
| FREC 424 Resource Economics—Theory and Policy   | 3-3,4                |
| FREC 429 Rural Economic Development—Theory and Policy   | 3-3,4                |
| FREC 444 Economics of Environmental Management  | 3-3,4                |
| The requirements for the major in Agricultural Economics must be met. In addition, the following courses must be taken:   |                      |
| FREC 424 Resource Economics—Theory and Policy   | 3-3,4                |
| FREC 429 Rural Economic Development—Theory and Policy   | 3-3,4                |
| FREC 444 Economics of Environmental Management  | 3-3,4                |
| Agricultural Economics (FREC) courses required for the Agricultural Economics major may be used to satisfy requirements for the Resource Economics and Rural Development concentration. One course in Geography       |                      |
| In addition to the Business and Economics courses required for the Agricultural Economics major, four of the following courses, with at least one in each area, must be taken:  |                      |
| <b>1. Political Economy</b>   |                      |
| ECON 306 Public Choice  | 3-3,4                |
| ECON 311 Economic Growth and Development Policy   | 3-3,4                |
| ECON 408 Economics of Law   | 3-3,4                |
| ECON 411 Economics of Growth and Development  | 3-3,4                |
| <b>2. Quantitative Methods</b>  |                      |
| ECON 415 Economic Forecasting   | 3-3,4                |
| ECON 422 Introduction to Econometrics   | 3-3,4                |
| ECON 423 Econometric Applications   | 3-3,4                |
| ECON 426 Introduction to Mathematical Economics   | 3-3,4                |
| <b>3. Applications</b>  |                      |
| ECON 433 Economics of the Public Sector   | 3-3,4                |
| ECON 475 Economics of Natural Resources   | 3-3,4                |
| ECON 477 Benefit/Cost Analysis  | 3-3,4                |
| FREC 405, FREC 435, FREC 630, and Independent Study may not be counted in the seven courses.  |                      |
| A maximum of three credits of Independent Study in Food and Resource Economics and a maximum of six credits of Independent Study in all areas, including Food and Resource Economics, may be counted toward a degree. |                      |
| <b>ELECTIVES</b>  |                      |
| Electives   | 14-18 <sup>1-4</sup> |
| 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.)     |                      |
| <b>CREDITS TO TOTAL A MINIMUM OF</b>  | <b>130</b>           |



ATTACHMENT 3

REVISION OF THE B.A.S. IN AGRICULTURAL ENGINEERING TECHNOLOGY

PRESENT CATALOG ENTRY

PROPOSED CHANGE

Specific requirement:  
PCSC 204 Introduction to Soil  
Science

Specific requirement:  
PLSC 204 Introduction to Soil  
Science

Select one of the following:  
ENTO 201 Wildlife Conservation  
FREC 201 Records and Accounts  
FOSC 201/211 Food Principals and Lab  
ANSC 101 Introduction to Animal  
Science  
FREC 408 Research Methods

Select at least one additional  
course in the college outside  
of the department.

ATTACHMENT 4

|  |                 |
|--|-----------------|
| * <b>DEGREE: BACHELOR OF SCIENCE IN AGRICULTURE</b>  |                 |
| <b>MAJOR: AGRICULTURAL BUSINESS MANAGEMENT</b>   |                 |
| <b>CURRICULUM</b>  | <b>CREDITS*</b> |
| <b>UNIVERSITY REQUIREMENTS</b>   |                 |
| ENGL 110 Critical Reading and Writing**  | 3 1             |
| Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. #   | 3 1             |
| <b>COLLEGE REQUIREMENTS</b>  |                 |
| <i>Mathematics and Computer Science</i>  |                 |
| Mathematics course (MATH 115 or higher level)†   | 3 1             |
| Computer Science course (FREC 226 or equivalent)   | 3 1             |
| <i>Agricultural and Biological Sciences</i>  | 9-12 1,2        |
| Minimum of one course outside the student's major in three of the following areas: Food and Resource Economics, Food Science, Agricultural Engineering, Animal Science, Entomology and Applied Ecology, Plant and Soil Sciences, or Biology. |                 |
| <i>Literature and Arts</i>   | 6 2             |
| Six credits selected from the general areas of English, Art, Art History, Communication, Music, Theatre, or Foreign Language.  |                 |
| <i>Social Sciences and Humanities</i>  | 9 2             |
| 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.  |                 |
| <i>Physical Sciences</i>   | 8 1             |
| Minimum of eight credits selected from one of the following areas: Chemistry, Physics, Geology, or Physical Science.   |                 |
| <b>MAJOR REQUIREMENTS</b>  |                 |
| <b>External to the College</b>   |                 |
| ACCT 207 Accounting I  | 3 2             |
| ACCT 208 Accounting II   | 3 2             |
| COMM 312 Oral Communication in Business  | 3 2             |
| ENGL 312 Written Communications in Business  | 3 2             |
| ECON 151 Introduction to Microeconomics  | 3 2             |
| ECON 152 Introduction to Macroeconomics  | 3 2             |
| BUAD 301 Introduction to Marketing   | 3 2,4           |
| Two additional courses offered by the College of Business and Economics.   | 6 3,4           |
| <b>Within the Department of Agriculture and Natural Resources</b>  |                 |
| FREC 120 Elementary Agricultural Economics   | 3 1             |
| FREC 125 Elementary Agricultural Economics: Applications   | 1 1             |
| FREC 226 Introduction to Data Analysis   | 3 1             |
| FREC 240 Quantitative Methods in Agricultural Economics  | 3 2             |
| FREC 465 Seminar   | 1 4             |
| Seven courses at the 400 level or above with at least two in each of the following general areas:  |                 |
| 1. Marketing/International Trade <i>and Fiber Marketing</i>  |                 |
| FREC 404 Food Marketing <i>and Fiber Marketing</i>   | 3 2,4           |
| FREC 410 International Agricultural Trade <i>and Trade and Marketing</i>   | 3 2,4           |
| FREC 441 Futures Marketing <i>and Agribusiness Markets</i>   | 4 2,4           |
| 2. Production/Management   |                 |
| FREC 403 Production Economics  | 3 2,4           |
| FREC 406 Agricultural Policy   | 3 2,4           |
| FREC 408 Research Methods  | 3 2,4           |
| FREC 427 Agricultural Finance <i>and Agribusiness Financial Management</i>   | 3 2,4           |
| 3. Resources/Development   |                 |
| FREC 420 Agriculture in Economic Development   | 3 2,4           |
| FREC 424 Resource Economics Theory and Policy  | 3 2,4           |
| FREC 429 Rural Development Theory and Policy   | 3 2,4           |
| FREC 444 Economics of Environmental Management   | 3 2,4           |
| FREC 405, FREC 435, FREC 630, and Independent Study may not be counted in the seven courses.   |                 |
| A maximum of three credits of Independent Study in Food and Resource Economics and a maximum of six credits of Independent Study in all areas, including Food and Resource Economics, may be counted toward a degree.                        |                 |
| <b>ELECTIVES</b>   |                 |
| Electives  | 32-36 1-4       |
| 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.)                             |                 |
| <b>CREDITS TO TOTAL A MINIMUM OF</b> 130   |                 |

ATTACHMENT 5a

REVISION OF THE B.A. in FOREIGN LANGUAGES AND LITERATURES

FOUR LANGUAGES

PRESENT CATALOG ENTRY

Within the College

- LIN    XXX    Three credits of Linguistics  
                  courses at the 200, 300 or  
                  400-level
- XX     XXX    Three credits of courses selected  
                  in consultation with the adviser  
                  from Foreign Languages and  
                  Literatures, Comparative Literature  
                  or Linguistics

PROPOSED CHANGE

Related Work

SIX credits from 200-, 300-, or 400-level courses.....6  
(including courses in translation) in Foreign Languages and  
Literatures, Comparative Literatures, or Linguistics,  
selected in consultation with the adviser.

ATTACHMENT 5b

REVISION OF THE B.A. in FOREIGN LANGUAGES AND LITERATURES

THREE LANGUAGES

PRESENT CATALOG ENTRY

Within the College

- LIN    XXX    Three credits of Linguistics  
                  courses at the 200, 300 or  
                  400-level
- XX     XXX    Three credits selected in  
                  consultation with the adviser  
                  from Foreign Languages and  
                  Literatures, Comparative Literature  
                  or Linguistics

PROPOSED CHANGE

Related Work

SIX credits from 200-, 300-, or 400-level courses.....6  
(including courses in translation) in Foreign Languages and  
Literatures, Comparative Literatures, or Linguistics,  
selected in consultation with the adviser.

ATTACHMENT 6

**DEGREE: BACHELOR OF ARTS  
MAJOR: LATIN EDUCATION**

**CURRICULUM**

CREDITS\*

See page 70 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department**

|   |   |     |
|---|---|-----|
| LATN 2xx .....                                  | 6 |     |
| LATN-321 Latin Prose Composition .....          | 1 | 1   |
| <del>and</del>                                  |   |     |
| LATN-322 Latin Prose Composition .....          | 1 | 1   |
| LATN 3xx and/or LATN 4xx .....                  | 9 |     |
| LATN 421 Advanced Latin Prose Composition ..... | 1 | X 3 |
| <del>and</del>                                  |   |     |
| LATN 422 Advanced Latin Prose Composition ..... | 1 | 1   |
| LATN 431 History of Latin Literature .....      | 1 | X 3 |
| <del>and</del>                                  |   |     |
| LATN-432 History of Latin Literature .....      | 1 | 1   |
| LATN 4xx .....                                  | 9 |     |

**Professional Studies**

|   |   |
|---|---|
| EDST 201 Education and Society .....                      | 3 |
| EDST 304 Educational Psychology - Social Aspects .....    | 3 |
| EDST 305 Educational Psychology - Cognitive Aspects ..... | 3 |
| FLIT/LING 421 Methods of Teaching Foreign Languages ..... | 3 |
| FLIT/LING 422 Language Syllabus Design .....              | 3 |
| LING/FLIT 424 Second Language Testing .....               | 3 |
| EDDV 400 Student Teaching .....                           | 9 |

**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 ..... 124**

ATTACHMENT 7

DEPARTMENT OF FOREIGN LANGUAGES & LITERATURES

REQUIREMENTS FOR A MINOR IN A LANGUAGE

A minor in a foreign language requires a minimum of 18-21 credits (100-level courses do not count in the French, German or Spanish minor) as follows:

SPANISH

21 credits including SPAN 200 and SPAN 201 and an additional 200-level course; two 300-level courses (one must be a Survey of Literature), and two 400-level courses (one must be a literature course).

ATTACHMENT 8

DEPARTMENT OF FOREIGN LANGUAGES & LITERATURES

Requirements for a Minor in German

Present Requirements

18 Credits above the 100-level including

- Two 300-level courses
- One 400-level literature course and
- One other 400-level course

Proposed requirements for a Minor in German

18 Credits above the 100-level including

- GRMN 311 or GRMN 312
- One other 300-level course
- One 400-level literature course
- One other 400-level course

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: MATHEMATICAL SCIENCES**  
**ATTACHMENT 9**  
**CURRICULUM**  
**CREDITS**

See page 70 for University and College requirements.

**MAJOR REQUIREMENTS:**

|   |        |
|---|--------|
| Within the Department   |        |
| MATH 210 Discrete Mathematics I   | 3      |
| MATH 242 Analytic Geometry and Calculus B***  | 4      |
| MATH 243 Analytic Geometry and Calculus C   | 4      |
| MATH 349 Elementary Linear Algebra  | 3      |
| MATH 302 Ordinary Differential Equations  | 3      |
| MATH 503 Advanced Calculus for Applications   | 3      |
| MATH 508 Introduction to Complex Variables and Applications   | 3      |
| MATH 600 Fundamentals of Real Analysis  | 3      |
| MATH 389 Graph Theory   | 3      |
| MATH 329 Linear Programming: Methods and Applications   | 3      |
| STAT 350 Introduction to Statistical Analysis I   | 3      |
| STAT 371 Introduction to Statistical Analysis II  | 3      |
| Twelve credits of mathematics and/or statistics at the 300 level or above: MATH 379, MATH 380, MATH 381, MATH 555, STAT 450, and STAT 555 are not applicable. | 12 3 4 |
| Within the College  |        |
| CISC 105 General Computer Science   | 3 1 2  |
| CISC 106 General Computer Science for Engineers   | 3      |
| CISC 180 Introduction to Computer Science I   | 3      |
| ENGL 312 Written Communications in Business   | 3 4    |
| Suitable equivalent   |        |

**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: MATHEMATICAL SCIENCES**  
**CONCENTRATION: MATHEMATICS OF COMPUTERS**

|   |        |
|---|--------|
| UNIVERSITY REQUIREMENTS   |        |
| ENGL 110 Critical Reading and Writing**   | 3 1    |
| Three credits in an approved course or courses addressing multicultural, ethnic, and/or gender-related content #  | 3 1 4  |
| COLLEGE REQUIREMENTS  |        |
| STAT Requirements   | 3 4    |
| Writing**   | 3 4    |
| A second 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 after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's registration booklet [See list of courses approved for second writing requirement, page 70.] |        |
| Foreign Language:   | 0 1 2  |
| Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.   |        |
| French, Russian, or German is recommended.  |        |
| Breadth Requirements (See page 71)  |        |
| 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 area.   | 21 1 4 |
| Group A   |        |
| Understanding and appreciation of the creative arts and humanities.   |        |
| Group B   |        |
| The study of culture and institutions over time.  |        |
| Group C   |        |
| Empirically based study of human beings and their environment.  |        |

**PROPOSED CURRICULUM**

|   |  |
|---|--|
| MATH 210 Discrete Mathematics I   |  |
| MATH 242 Analytic Geometry and Calculus B   |  |
| MATH 243 Analytic Geometry and Calculus C   |  |
| MATH 245 An Introduction to Proof   |  |
| MATH 302 Ordinary Differential Equations  |  |
| MATH 349 Elementary Linear Algebra  |  |
| STAT 300  |  |
| Nine additional credits of mathematics and/or statistics at the 300 level or above. |  |
| MATH 379, MATH 380, MATH 381, MATH 555, STAT 450, and STAT 555 are not applicable.  |  |
| Within the College  |  |
| Related Work  |  |
| CISC 181 Introduction to Computer Science   |  |
| or  |  |
| CISC 105 General Computer Science   |  |
| and   |  |
| CISC 120 Object Oriented Programming in C++   |  |
| then  |  |
| CISC 220 Data Structures  |  |

Any substitutions must be approved by the department Undergraduate Studies Committee.

ENGL 312 Written Communications in Business or suitable equivalent

**ATTACHMENT 10**

**MAJOR REQUIREMENTS:**

|   |       |
|---|-------|
| Within the Department   |       |
| MATH 210 Discrete Mathematics I   | 3 1   |
| MATH 242 Analytic Geometry and Calculus B***                            | 4 1   |
| MATH 243 Analytic Geometry and Calculus C                               | 4 2   |
| MATH 245 An Introduction to Proof                                       | 4 2   |
| MATH 302 Ordinary Differential Equations                                | 3 2   |
| MATH 349 Elementary Linear Algebra                                      | 3 2   |
| MATH 302 Ordinary Differential Equations                                | 3 2   |
| MATH 315 Discrete Mathematics II  | 3 2 3 |
| MATH 389 Graph Theory   | 3 2 3 |
| MATH 426 Introduction to Numerical Analysis and Algorithmic Computation | 3 4   |
| MATH 450 Abstract Algebra   | 3 4   |
| MATH 503 Advanced Calculus for Applications                             | 3 4   |
| or  |       |
| MATH 600 Advanced Calculus - Introduction to Analysis I                 | 3 4   |
| and   |       |
| MATH 502 Advanced Calculus - Introduction to Analysis II                | 3     |
| MATH 508 Introduction to Complex Variables and Application              | 3 4   |
| MATH 529 Linear Programming: Methods and Applications                   | 3 4   |
| STAT 370 Introduction to Statistical Analysis I                         | 3 3   |
| STAT 371 Introduction to Statistical Analysis II                        | 3 3   |
| Within the College  |       |
| Related Work  |       |
| CISC 180 Introduction to Computer Science I                             | 3 2   |
| and   |       |
| CISC 181 Introduction to Computer Science II                            | 3     |
| CISC 220 Data Structures  | 3 4   |
| CISC 211 Algorithmic and Numerical Solution of Differential Equations   | 3 4   |
| CISC 627 Simulation of Discrete Systems                                 | 3 4   |
| ENGL 312 Written Communications in Business                             | 3 4   |
| Two-semester sequence of laboratory science                             | 8 1 2 |

**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**

Within the University  
 Area of application outside the department must be approved by the department Undergraduate Studies Committee. Student should check with adviser

15 1 4

**ELECTIVES**

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree, of least 79 outside Mathematical Sciences.

**CREDITS TO TOTAL A MINIMUM OF 124**

**PROPOSED CURRICULUM**

|   |  |
|---|--|
| MATH 210 Discrete Mathematics I   |  |
| MATH 242 Analytic Geometry and Calculus B   |  |
| MATH 243 Analytic Geometry and Calculus C   |  |
| MATH 245 An Introduction to Proof   |  |
| MATH 302 Ordinary Differential Equations  |  |
| MATH 349 Elementary Linear Algebra  |  |
| MATH 401 Advanced Calculus  |  |
| MATH 451 Abstract Algebra I   |  |
| MATH 426 Introduction to Numerical Analysis and Algorithmic Computation                 |  |
| STAT 300  |  |
| Eighteen additional credits of mathematics and/or statistics at the 300 level or above. |  |
| MATH 379, MATH 380, MATH 381, MATH 555, STAT 450, and STAT 555 are not applicable.      |  |
| Within the College  |  |
| Related Work  |  |
| CISC 181 Introduction to Computer Science   |  |
| or  |  |
| CISC 105 General Computer Science   |  |
| and   |  |
| CISC 120 Object Oriented Programming in C++   |  |
| then  |  |
| CISC 220 Data Structures  |  |
| Any substitutions must be approved by the department Undergraduate Studies Committee.   |  |
| ENGL 312 Written Communications in Business or suitable equivalent                      |  |
| Two-semester sequence of laboratory science   |  |

**DEGREE: BACHELOR OF ARTS  
MAJOR: MATHEMATICS EDUCATION**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**  
ENGL 110 Critical Reading and Writing\*\* 3 1  
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. # 3 14

**COLLEGE REQUIREMENTS**  
**Skill Requirements**  
Writing\*\* 3 34  
A second writing course involving significant writing experience including two courses 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 after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. See list of courses approved for second writing requirement, page 70.1

**Foreign Languages:** 0 12  
Completion of the intermediate-level course (107 or 112) in a given language or for students with more than 4 years of high school foreign language or the equivalent, satisfactory performance on a proficiency test in that language. French, Russian or German is recommended.

**Discrete Mathematics I**  
MATH 210  
MATH 242  
MATH 243  
MATH 245  
MATH 349  
MATH 389  
MATH 401  
MATH 451  
MATH 518  
MATH 540  
STAT 300

**Analytic Geometry and Calculus B**  
**An Introduction to Proof**  
**Elementary Linear Algebra**  
**Graph Theory**  
**Advanced Calculus**  
**Abstract Algebra I**  
**Mathematical Models and Applications**  
**or another Modeling Course**  
**Geometry**

**General Computer Science**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**General Computer Science for Engineers**  
CISC 105  
or  
CISC 106  
or  
CISC 181  
PHYS 207  
ENGL 312  
or suitable equivalent

**ATTACHMENT 11**

**Breadth Requirement (See page 71)**

Group A 12 14  
Understanding and appreciation of the creative arts and humanities  
in one credit representing at least two areas.

Group B 9 14  
The study of culture and institutions over time. Nine credits representing  
at least two areas.

Group C 9 14  
Empirically based study of human beings and their environment. Nine  
credits representing at least two areas.

Group D 13 14  
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.

**MAJOR REQUIREMENTS:**

**Within the Department**

MATH 210 Discrete Mathematics I 3 1  
MATH 242 Analytic Geometry and Calculus B\*\*\* 4 2  
MATH 243 Analytic Geometry and Calculus C 4 2  
MATH 340 Concepts of Analysis 3 3  
MATH 302 Ordinary Differential Equations 3 2  
MATH 349 Elementary Linear Algebra 3 3  
MATH 450 Abstract Algebra 3 3  
MATH 518 Mathematical Models and Applications 3 14  
MATH 540 Fundamentals of Geometry 3 3  
STAT 370 Introduction to Statistical Analysis I 3 3  
STAT 371 Introduction to Statistical Analysis II 3 3  
In addition, students seeking certification to teach calculus must complete  
MATH 303 Advanced Calculus for Applications 3 14  
MATH 308 Introduction to Complex Variables and Application 3 14

**Within the College**

CISC 105 General Computer Science 3 12  
or  
CISC 106 General Computer Science for Engineering 3  
or  
CISC 180 Introduction to Computer Science 3  
PHYS 207 General Physics 4 12  
ENGL 312 Written Communications in Business 3 14

**Professional Studies**

EDST 201 Education and Society 3 14  
EDST 304 Educational Psychology - Social Aspects 3 14  
EDST 305 Educational Psychology - Cognitive Aspects 3 14  
MATH 379 Problem Solving Strategies 1 4  
MATH 380 Approaches to Teaching Mathematics 3 4  
MATH 381 Practicum in Secondary Mathematics 1 2  
EDST 420 Reading in the Content Areas 1 14  
EDV 400 Student Teaching 9 4

**ELECTIVES**

Electives  
After required courses are completed, sufficient elective credits must be  
taken to meet the minimum credit requirement for the degree, 79 outside  
of Mathematical Sciences.

**CREDITS TO TOTAL A MINIMUM OF 124**

**ATTACHMENT 12**

**TO:** Rivers Singleton  
Chairperson  
University Senate Committee on Undergraduate Studies

**FROM:** Robert F. Brown  
Director  
University Honors Program

**DATE:** November 16, 1994

**SUBJECT:** Minor Changes in Requirements for the First-Year Honors Certificate and the Advanced Honors Certificate

Enclosed are sheets listing the requirements for these two awards, which were approved by the University Senate several years ago. We now seek approval for the following changes (also noted on the requirements sheets):

**First-Year Honors Certificate.** Delete, in 1.b, the words: "and an Honors Forum."

The effect of this change is to make the one-credit Honors Forum course (a number of which have been offered each semester) no longer specifically required for this award, without changing the minimum number of Honors credits required for the award.

**Advanced Honors Certificate.** Add an item: "1.c The Honors Forum." Credits are to include a course designated as an Honors Forum."

The effect of this change is to make a one-credit Honors Forum course a specific requirement for this award, without changing the minimum number of Honors credits required for the award.

ATTACHMENT 13

**To:** University Faculty Senate

**From:** Steven K. Dentel, Coordinator *Steven K. Dentel*  
Environmental Engineering Program

Robert A. Dalrymple, Acting Chairman *Robert A. Dalrymple*  
Civil Engineering Department

Stuart L. Cooper, Dean *Stuart L. Cooper*  
College of Engineering

**Date:** March 24, 1994

**Subject:** College of Engineering Vote

On March 18, 1994, the Faculty of the College of Engineering approved, by a written ballot margin of 46 to 19 (one abstention), the resolution

Resolved, that the College of Engineering recommends the Department of Civil Engineering be renamed the Department of Civil and Environmental Engineering, effective September 1, 1994.

The Department of Civil Engineering, in an earlier vote, also approved the renaming of the department, by a vote of 13 to 1.

The College of Engineering endorsed this step concomitant with endorsement of a provisional degree program leading to a Bachelor of Environmental Engineering, to be effective September 1, 1995. The new departmental name will reflect the availability of this degree, as well as the substantial graduate and research programs in Environmental Engineering that are becoming increasingly prominent.

We are requesting approval of this new departmental name by the Faculty Senate, following review by any appropriate committees. The requested effective date of September 1 is to allow preparation over the next year for the anticipated undergraduate program in Environmental Engineering.

ATTACHMENT 14

Resolution for University Faculty Senate Agenda

RESOLVED, that the Faculty Senate approves the establishment of a new minor in the College of Physical Education, Athletics and Recreation entitled Coaching Science Minor, effective immediately.

Coaching Science Minor  
Proposal

A. Description - Statement of Mission

In Delaware and the surrounding states there is a need for qualified athletic coaches (particularly at the scholastic level). Many current coaches have not had any formal training or education in youth sport and coaching principles or skills. This program will help the student develop a personal coaching philosophy, an understanding of the body, how it performs, injury and injury prevention, teaching of skills and progressions, sport psychology, and a variety of team management responsibilities. The practicum will offer a field experience in the students's chosen sport, to further use and develop one's personal coaching skill and philosophy.

B. Rationale and Demand

1. Institutional factors  
The intent of the coaching minor is to help student athletes and other U of D students with an athletic interest develop a better understanding of how to coach and exchange old and new ideas about coaching. Attendance at the U.S.O.C (United States Olympic Committee) Coaching Symposium, informative materials from American Sport Education Program (ASEP), National Association of Sport and Physical Education (NAPE), and investigation of the Coaching Minor at various universities helped in the development of this proposal. The Physical Education Program (PPER) at the University of Delaware already has most of the necessary courses in place. The faculty also possess hundreds of years of successful coaching experience and expertise.

2. Student demand

We expect to interview and screen applicants who have a sincere interest and desire in athletic coaching. A limit of 6-8 students per class would provide a maximum group of 25 - 30 students in the program at any one time. The minor will require 18 hours of course work. Thirteen of these credit hours are already being taught within the HPER Department. New courses will be Principles of Coaching (3 hrs) and Coaching Practicum (2 hrs) arranged in a secondary school or club setting. This program is designed to meet the needs of student athletes on campus who have had high school or college experience and desire to enter the coaching field after

graduation.

3. Transferability

Credit hrs taken in the program would transfer the same as any other credits within the University. Course work would prepare students to meet standards currently being proposed by National Association for Sport and Physical Education (N.A.S.P.E.) and American Sport Education Program (A.S.E.P.).

4. Access to graduate and professional programs  
N/A.

5. Demand and Employment factors  
It is estimated that more than two-thirds of interscholastic coaches have received little or no formal coaching education. In the '60's a divorce of sorts occurred between coaching and physical education. By the '70's Title IX brought about a dramatic increase in the number of girls' and womens' teams, and likewise a need for coaches. Recently, a national awareness has developed for the need to have professionally prepared coaches working with the young athletes. Many states already require coaching education or certification and others will surely follow. This minor will prepare students to fill positions with a coaching requirement.

6. Regional, state, and national factors  
At present, we do not have a coaching education or certification program available in the state of Delaware. The Delaware Secondary School Athletic Association recommends that certified employed teachers coach or assist and that all coaches complete the National Federation Interscholastic Coaches Education Program (N.F.I.C.E.P.) This consists of a Sport Science and Sport First Aid Course. Sport-specific technique and tactics courses will soon be part of this program. N.F.I.C.E.P. is required or recommended by various interscholastic associations in 35 states.

7. Describe other strengths

Our active and past coaches in the Physical Education (HPER) and Athletic Programs represent hundreds of years of successful coaching experiences. The minor will give a wealth of ideas and experiences in the coaching profession to the University of Delaware students with ambitions to entering the coaching field.

C. Enrollment, Admissions, and Financial Aid

1. Enrollment  
It is anticipated that this minor will enroll 6-8 students per year beginning Fall of 95 and that maximum of 25 to 30 students will be in the program at any one time. This would not place an unusually heavy load on our present teacher education program.

2. Admission requirements

- a. Students applying for the minor in Coach Science must have completed at least one semester of full time study at the University with a grade-point average of at least 2.25.
- b. Applications must be processed and courses assigned by the Department Chair or a designated representative.
- c. An interview will be required of all applicants and acceptance will be on a competitive basis.
- d. A minimum grade of C is required in all courses of the minor.

\*Note - This minor does not fulfill the minor or concentration requirement of the PES degree program.  
These requirements are similar to other minors offered under University guidelines.

The coaching minor will present an additional way for students interested in this particular field to compliment their major or to foster personal growth.

3. Student expenses and financial aid

No additional student expenses or financial aid are necessary. The coaching practicum, however, will require transportation to and from the school and/or coaching site.

D. Curriculum Specifics

- 1. Institutional Factors  
A minor in Coaching Science is accomplished in addition to a Major Degree. This is a program of study less intense and comprehensive than a major but with a greater coherence than a group of courses selected at random.

2. Describe the curriculum  
Curriculum

|          | CREDITS | COURSE  |
|----------|---------|---|
| Required | 3       | HPER 310 First Aid, Safety & Emergency Care   |
| Required | 3       | HPER 220 Anatomy & Physiology   |
| Required | 3       | HPER 320 Principles of Strength/Conditioning  |
| Required | 3       | HPER 390 Principles of Coaching   |
| Required | 1       | HPER 360 Psychology of Coaching   |
| Required | 2       | HPER 460 Coaching Practicum   |
| Required | 3       | Sport Specific Electives in Skills/Coaching<br>*1 credit may be from a skills course, with advisors approval. |

**ELECTIVES**

- HPER 121 Water Safety Instruction
- HPER 138 Lifeguard Training Instructor
- HPER 142 Skills, Techniques and Knowledge of Beginning Swimming/Diving
- HPER 143 Skills, Techniques and Knowledge of Stunts, Tumbling and Gymnastic
- HPER 144 Skills, Techniques and Knowledge of Volleyball and Self Defense
- HPER 242 Skills, Techniques and Knowledge of Lacrosse and Field Hockey
- HPER 243 Skills, Techniques and Knowledge of Softball and Track and Field
- HPER 244 Skills, Techniques and Knowledge of Soccer and Basketball
- HPER 252 Skills, Techniques and Knowledge of Golf and Archery
- HPER 255 Skills, Techniques and Knowledge of Racquet Sports
- HPER 246 Techniques for Men's Lacrosse
- HPER 247 Techniques for Women's Lacrosse
- HPER 225 Officiating Recreational Sports
- HPER 361 Coaching Volleyball
- HPER 362 Coaching Baseball
- HPER 363 Coaching Tennis
- HPER 365 Coaching Basketball
- HPER 368 Coaching Track and Field
- HPER 372 Coaching Swimming and Diving
- HPER 373 Coaching Football
- HPER 374 Coaching Lacrosse
- HPER 376 Coaching Soccer
- HPER 377 Coaching Field Hockey
- HPER 378 Coaching Softball
- HPER 256 Taping Techniques

**E. Resources Available**

- 1. Learning resources  
All texts, classroom materials, labs, videos, and other various instructional aids are presently used by the Physical Education Program in HPER courses involving 310, 220, 320, 360, plus all 1 credit sport specific electives.
- 2. Faculty/Administrative Resources  
The Dean, Chairperson, teaching faculty, coaching professionals and administrative support staff currently involved in our Physical Education and Athletic Programs.

- 3. External Funding  
Additional external funding is not required in Physical Education to support the minor.

**F. Resources Required**

- 1. Learning resources  
Textbook materials for the Principle of Coaching Course, Instructor guide and Principles of Coaching Videos.
- 2. Personnel Resources  
Leadership training seminars for selected faculty directly involved in the Principles of Coaching Course and those people coordinating the Coaching Practicum - some additional workload responsibilities for

faculty but no new positions.

**3. Budgetary Needs**

Seminar training, text, instructor guide, video resources.

**G. Implementation and Evaluation**

**1. Implementation Plan**

Interested students may register for courses which will apply to the Coaching Science Minor - Fall 94. When the Minor is approved candidates will officially apply, be screened and interviewed by the Department Chairperson and Coaching Minor Coordinator. We should have students officially registered in the Coaching Science Minor 8/95.

**2. Evaluation Plan**

The evaluation process will be on going. The students will be tested for their knowledge of coaching standards and competencies as stated in their course syllabus. They will also be expected to meet or exceed standards set forth by the A.S.E.P. and N.A.S.P.E. Students will be observed during their coaching practicum by their cooperating coach and Coaching Minor Coordinator. Feedback from cooperating coaches, parents, administrators and athletes will assist in evaluating the effectiveness and direction of the Coaching Science Minor.

After the second year of this program, representatives from A.S.E.P. and N.A.S.P.E. will be invited to our campus for purposes of evaluating and reviewing the curriculum, resources, faculty and students of the Coaching Science minor.

**Appendices**

- 1. Accreditation Criteria N/A
- 2. Letters of Collaborative Agreement N/A
- 3. Transfer/Retention N/A
- 4. Letters of Approval from Impacted Departments N/A
- 5. Other Pertinent Documents (See attached)



**REVISION TO THE FACULTY HANDBOOK**

Deleted text is double underlined and added text is in bold type.

Page III-39 of the Faculty Handbook, paragraph (b) under Application Procedure

- (b) "Applications for full-year sabbatical leave should reach the department chair by September 1, the first Friday in September, twelve months before the leave period; notification of the action on the grant shall be made not later than December 1 the first Friday in December following. Applications for half-year sabbaticals should reach department chairs either by September 1 or February 1 the first Friday in September or the first Friday in February, depending upon the period for which the leave is requested, but in either case twelve months before the leave period; notification of the action shall be made not later than December 1 or March 1 the first Friday in December or the first Friday in May following. The importance. . . ."

ATTACHMENT 16

September 8, 1994

RECEIVED  
UNIVERSITY OF DELAWARE

SEP - 9 1994

MEMORANDUM

TO: John McLaughlin, President  
University Faculty Senate

FROM: Melvyn D. Schiavelli  
University Provost *Mel Schiavelli*

SUBJECT: Permanent Approval for Major in Apparel Design

FACULTY SENATE

I have reviewed the report of the External Review committee for the Apparel Design major and support the final approval of this undergraduate degree program. The external report points to the excellent work of the Apparel Design faculty in preparing students. Notably, it commends the program for being a leader in the use of computer-assisted design, its sound leadership, and the reputation of the faculty. In addition, the review notes a strong core curriculum that prepares students well for work in this field; this has been achieved in part through good interaction with industrial sponsors.

I encourage the faculty in the program to heed the advice of the review committee regarding innovative instructional activities. Budgetary resources do not allow conversion of an additional line to a tenure-track position, but the program can continue to do well with existing resources. I also assume that the Dean of the College will include any equipment upgrading/replacement needs in her priorities.

In sum I am pleased that the external review has noted the strengths of this program, the strong reputation of the faculty, and the excellent training that students receive. I support permanent approval.

MDS:lp

cc: Karen Stein, Chair, Department of Textiles, Design and Consumer Economics  
David Barlow, Chair, Review Committee  
Margaret L. Andersen, Vice Provost for Academic Affairs



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UNIVERSITY OF DELAWARE

JAN 11 1995

FACULTY SENATE

January 9, 1995

TO: Harrison B. Hall, Chair  
University Faculty Senate Coordinating Committee

FROM: Melvyn D. Schiavelli  
University Provost *mel schiavelli*

SUBJECT: ENVIRONMENTAL ENGINEERING PROGRAM

I write to indicate my support for the undergraduate degree program in Environmental Engineering, proposed by the Department of Civil Engineering. This program will provide excellent new opportunities for students in Engineering who want to utilize engineering skills to work in the environmental area--an area of increasing importance. This is an area of growing national interest, and it will add to the University's overall commitment in the area of environmental studies.

The Dean of Engineering has assured me that the program can be developed with existing resources. My discussions with the Chemistry Department indicate that the need for an additional teaching assistant in Chemistry is not immediate, and can be supported with existing University resources should that need arise. I am also assured that the Department of Civil Engineering has a plan for phasing out the program by serving students within it, if the program does not succeed as expected. The program is likely to recruit additional outstanding students to the College of Engineering, where there is the capacity for more students. Because the resources needed (faculty, facilities, and administrative support) are in place, I am confident of the success of this program.

jrb

cc: Dean Stuart L. Cooper  
Ib A. Svendsen, Chair, Civil Engineering

| Engineering Science and Design Content by Course        |   |              |               |                |
|---|---|--------------|---------------|----------------|
| Course  | Course title                              | Credit hours | Eng'g science | Design content |
| <i>Required courses - both concentrations</i>           |   |              |               |                |
| BISC321   | Environmental Biology                     | 3            | 3             | 0              |
| CIEG135   | Introduction to Environmental Engineering | 1            | 1             | 0              |
| CIEG211   | Statics                                   | 3            | 3             | 0              |
| CIEG212   | Strength of Materials                     | 1            | 1             | 0              |
| CIEG213   | Materials Laboratory                      | 3            | 3             | 0              |
| CIEG233   | Environmental Engineering Processes       | 1            | 1             | 0              |
| CIEG337   | Environmental Engineering Laboratory      | 3            | 3             | 2              |
| CIEG431   | Water Supply                              | 3            | 1             | 2              |
| CIEG432   | Wastewater Engineering                    | 3            | 1             | 2              |
| CIEG436   | Solid Waste Management                    | 3            | 0             | 3              |
| CIEG437   | Water & Wastewater Quality Laboratory     | 3            | 3             | 0              |
| CIEG441   | Hydrology                                 | 3            | 2             | 1              |
| CIEG442   | Hydraulic Engineering                     | 3            | 2             | 1              |
| CIEG461   | Senior Design                             | 3            | 0             | 3              |
| CISC106   | General Computer Science for Engineers    | 3            | 3             | 0              |
| CHEG231   | Thermodynamics I                          | 3            | 3             | 0              |
| CHEG235   | Thermodynamics II                         | 3            | 3             | 0              |
| MECH305   | Fluid Mechanics                           | 3            | 3             | 0              |
| MECH306   | Fluid Mechanics Laboratory                | 1            | 1             | 0              |
| MEEG438   | Air Pollution Control                     | 3            | 1             | 2              |
|   | <b>SUBTOTAL - REQUIRED COURSES</b>        | <b>52</b>    | <b>38</b>     | <b>14</b>      |
| <i>Environmental facilities design and construction</i> |   |              |               |                |
| CIEG301   | Analysis of Structures                    | 4            | 4             | 0              |
| CIEG403   | Concrete Design                           | 3            | 0             | 3              |
| CIEG420   | Soil Mechanics                            | 4            | 4             | 0              |
|   | <b>TOTAL</b>                              | <b>63</b>    | <b>46</b>     | <b>17</b>      |
| <i>Pollution transport and control processes</i>        |   |              |               |                |
| CHEG332   | Chemical Engineering Kinetics             | 3            | 2             | 1              |
| CHEG342   | Heat and Mass Transfer                    | 4            | 3             | 1              |
| CHEM443   | Physical Chemistry                        | 3            | 0             | 0              |
|   | <b>TOTAL</b>                              | <b>62</b>    | <b>43</b>     | <b>16</b>      |
| <i>Technical elective courses</i>                       |   |              |               |                |
| CHEM444   | Physical Chemistry                        | 3            | 0             | 0              |
| CIEG402   | Steel Design                              | 3            | 0             | 3              |
| CIEG404   | Prestressed Concrete Design               | 3            | 0             | 3              |
| CIEG421   | Foundations and Substructures             | 3            | 0             | 3              |
| CIEG433   | Hazardous Waste Management                | 3            | 1             | 2              |
| CIEG435   | Industrial Wastes Management              | 3            | 3             | 0              |
| CIEG437   | Water and Wastewater Quality              | 3            | 1             | 2              |
| CIEG482   | Systems Design and Operation              | 3            | 2             | 1              |
| CIEG486   | Engineering Management                    | 3            | 2             | 1              |
| MEEG424   | Air Pollution Processes                   | 3            | 2             | 1              |

### REQUIREMENTS FOR THE PH.D. IN APPLIED MATHEMATICS

Students planning to study for a Ph.D. must pass two written examinations. The first written examination is given at the beginning of each semester and consists of two parts, the first based on the content of MATH 600-602 and the second on the content of MATH 609-610. Both parts of the written exam must be passed no later than the beginning of the fourth semester of study. A student may satisfy the course requirement for any of these courses by passing this examination.

The second written exam is administered by an examining committee consisting of three faculty members. This examination encompasses a major and a minor area. The Committee on Graduate Studies will give final approval of areas chosen and the makeup of the examining committee. A student must demonstrate competence in the major and minor areas through a written examination as decided by this committee.

Students with no prior graduate course work must complete at least 54 hours of course work of which 24 hours must be at the 800 level in mathematics including 6 hours of MATH 824 in an area of application as approved by the graduate committee or 6 hours of graduate level courses outside the department as approved by the graduate committee. In addition, all students must fulfill the requirements for a master's degree and pass MATH 805 and MATH 806. It is recommended that courses be chosen from the following:

- (a) Differential Equations: MATH 818, MATH 835, MATH 836
- (b) Mathematical Methods in Physics and Engineering: MATH 887
- (c) Optimization: MATH 694, MATH 801, MATH 804
- (d) Integral Equations: MATH 822, MATH 823
- (e) Numerical Analysis: MATH 612, MATH 838, MATH 839
- (f) Topics in Applied Mathematics: MATH 617, MATH 824
- (g) Probability: MATH 630, MATH 631

Each student will be required to have a reading knowledge of two of three languages: French, German or Russian. Substitutions may be allowed by the Graduate Committee upon petition. Departmental examinations are given on request.

### REQUIREMENTS FOR MASTER OF SCIENCE IN APPLIED MATHEMATICS

Candidates for the M.A. and M.S. degrees choose one of the following programs:

- I. Master's with thesis;
- II. Master's without thesis.

A Master's degree candidate must complete 30 hours of course work with MATH 600, MATH 602, MATH 605, MATH 609, MATH 610, MATH 611, MATH 616, MATH 807 required. For the remaining course work in mathematics it is recommended that courses be selected from the following:

- (a) Analysis: MATH 805
- (b) Numerical Analysis: MATH 612
- (c) Integral Equations: MATH 822
- (d) Optimization: MATH 694, MATH 801
- (e) Probability: MATH 630, MATH 631
- (f) Modeling: MATH 617 or graduate level courses taken outside the Department as approved by the graduate committee.

If the student chooses program I, then 6 of the hours devoted to departmental courses would be devoted to thesis work. A student choosing Program II must enroll for 4 hours of MATH 697 (Thematic Seminar).

A student electing a Master's degree with thesis must successfully defend that thesis before a committee of three faculty members including the thesis adviser.

B. Student Demand

The Italian Concentration of the B.A. in Foreign Languages and Literatures currently has approximately ten majors. Two of these students have asked for the creation of an education major so that they might pursue a career in the secondary schools. We do not anticipate large numbers of new students enrolling in this program, but we do wish to make the reciprocal certification available to those who choose to become teachers. One of the persons requesting the program is a full-time regular student, the other is a part-time student with a full-time job.

C. Transferability

As indicated above, this program will be transferable in that it will result in reciprocal certification in about 30 states. We do not anticipate that students in other colleges and universities in the state will transfer into this program because Italian courses beyond the intermediate level are not taught elsewhere in the state.

D. Access to Graduate and Professional Programs

Students receiving the B.A. in Italian Education will be eligible for admission to any university offering an M.A. in Italian or a professional master's degree (e.g., the Master's in Instruction). Such programs would typically attract persons already actively employed as high school teachers of Italian.

E. Demand and Employment Factors in the State and the Region

There are currently in Delaware two high schools offering Italian as a field of study, and a much larger number of such schools in surrounding states.

III. ADMISSIONS REQUIREMENTS

Students enrolling in this program must have completed ITAL 107 (Intermediate Italian) or the equivalent, with a grade of at least B-. The required GPA for graduation is 2.75 in Italian and overall.

IV. CURRICULUM SPECIFICS

A. Institutional Factors

Students completing the requirements for this program will be awarded the B.A. in Italian Education. This degree is the usual form of recognition for students who prepare themselves for a career in secondary education. Students opting for the Honors Track will be awarded the Honors B.A. in Italian Education.<sup>1</sup>

B. DESCRIPTION OF THE CURRICULUM

The curriculum requires at least 124 credit hours of instruction, including 30 credits of Italian at the 200 level or above, and 27 credits of pedagogy courses. All applicable University and College of Arts and Science requirements apply (ENGL 110, multicultural requirement, distribution and skill requirements, etc.). As indicated above, no new courses have to be created for this program.

CURRICULUM

See page 82 of the 1993-1994 Undergraduate Catalog for University and College Requirements.

MAJOR REQUIREMENTS

Within the Department

|                         |   |
|-------------------------|---|
| ITAL 200 or 250         | 3 |
| ITAL 205 or 206*        | 3 |
| ITAL 211 or 212         | 3 |
| ITAL 305 or 306*        | 3 |
| ITAL 3XX (literature)   | 6 |
| ITAL 3XX (civilization) | 3 |
| ITAL 4XX (literature)   | 6 |
| ITAL 4XX (language)     | 3 |

\*ITAL 306 is being developed for a Fall Semester in Siena program. It will be offered only in Siena. ITAL 206 is offered only in Siena.

Professional Studies

|               |   |
|---------------|---|
| EDST 201      | 3 |
| EDST 304      | 3 |
| EDST 305      | 3 |
| FLLT/LING 421 | 3 |
| FLLT/LING 422 | 3 |
| LING/FLLT 424 | 3 |
| EDDV 400      | 9 |

V. RESOURCES AVAILABLE

A. Learning Resources

Library holdings are already adequate for the Italian Concentration of the B.A. in Foreign Languages and Literatures, and for the B.A. in Foreign Language Education programs named above.<sup>2</sup> The Department has extensive courseware and videos in Italian, as well as word-processing facilities in Italian in its state-of-the-art Foreign Language Media Center.

B. Faculty/Administrative Resources

The present full-time Italian staff is well equipped carry on the proposed program. Indeed, since no new course will be required for the B.A. in Italian Education, and since the B.A. in F.L.L. already has a fully-functioning Italian Concentration, all the courses are already being taught. The Department has a Coordinator of Foreign Language Education whose duties include working with appropriate officers of the College of Education to place students with cooperating teachers, and a faculty already teaching the FLLT/LING 421, 422, and 424 courses.

VI. RESOURCES REQUIRED

For the reasons indicated above, no new resources of any kind are required for this program.

<sup>2</sup>See the attached letter from the Director of Libraries, Susan Brynteson.

<sup>1</sup>The Honors B.A. in Foreign Languages and Literatures and in Foreign Language Education were approved by the University Faculty Senate on 8 February 1993. At that time, the Senate also approved the following statement which was part of the proposal (see Attachment 23, p.1): "The Honors Degree track will also apply to any new major or concentration comparable to the above [i.e., to the then-existing majors and concentrations] that the Department may create in the future, unless the Department stipulates otherwise."