11-20-1969

57th Curricular Affairs Committee Report

University of Rhode Island Faculty Senate

Serial Number #69-70 - 3

UNIVERSITY OF RHODE ISLAND

FACULTY SENATE

BILL

Adopted by the Faculty Senate

TO: President Werner A. Baum

FROM: Chairman of the Faculty Senate

1. The Attached BILL, titled 57th Curricular Affairs Committee Report

_____

_____,

is forwarded for your consideration.

2. The original and two copies for your use are included.

3. This BILL was adopted by vote of the Faculty Senate on November 20, 1969 (date).

4. After considering this bill, will you please indicate your approval or disapproval. Return the original or forward it to the Board of Trustees, completing the appropriate endorsement below.

5. In accordance with Section 8, paragraph 2 of the Senate's By-Laws, this bill will become effective on December 11, 1969 (date), three weeks after Senate approval, unless: (1) specific dates for implementation are written into the bill; (2) you return it disapproved; (3) you forward it to the Board of Trustees for their approval; or (4) the University Faculty petitions for a referendum. If the bill is forwarded to the Board of Trustees, it will not become effective until approved by the Board.

November 21, 1969 (date)

Walter E. Trunbull /s/
Chairman of the Faculty Senate

- -

ENDORSEMENT 1.

TO: Chairman of the Faculty Senate

FROM: President of the University

1. Returned.

2. Approved ✓. Disapproved _____.

3. (If approved) In my opinion, transmittal to the Board of Trustees is ~~not~~ necessary.

12/8/69 (date)

William R. Barron /s/
President

Form approved 11/65

(OVER)

ALTERNATE ENDORSEMENT 1.

TO: Chairman of the Board of Trustees.

FROM: The University President

1. Forwarded.

2. Approved.

_____ _____/s/
(date) President

- -

ENDORSEMENT 2.

TO: Chairman of the Faculty Senate

FROM: Chairman of the Board of Trustees, via the University President.

1. Forwarded.

_____ _____/s/
(date)

_____
(Office)

- -

ENDORSEMENT 3.

TO: Chairman of the Faculty Senate

FROM: The University President

1. Forwarded from the Chairman of the Board of Trustees.

_____ _____/s/
(date) President

- -

Original received and forwarded to the Secretary of the Senate and Registrar for filing in the Archives of the University.

_____ _____/s/
(date) Chairman of the Faculty Senate

UNIVERSITY OF RHODE ISLAND
KINGSTON, RHODE ISLAND

November 10, 1969

Faculty Senate Curricular Affairs Committee Fifty-seventh Report (Full)

At its meeting on October 30, 1969 the Faculty Senate Curricular Affairs Committee considered the following matters which are now submitted to the Faculty Senate for information or confirmation as indicated.

I. Matters of Information (for further details consult the chairman of the department concerned).

A. College of Arts and Sciences.

1. Department of Chemistry

a. Change the description of Chemistry 202, The Transition Metals, to read:

Chemistry 202 The Transition Metals Semester II, 3 credits
Structure, bonding and reaction mechanisms of transition metals and their compounds. Applications of Ligand Field Theory. (Lec. 3) Prerequisite: Chem. 102. Nelson.

II. Matters Requiring Confirmation by the Faculty Senate.

A. College of Arts and Sciences

1. Department of Biochemistry

a. Add (new):

Biochemistry 111 (411) Biochemistry Laboratory Semester II, 3 credits
As an introduction to the biochemical approach to biological research this course is designed to guide the student through the study of a biological problem in metabolism at the level of enzymology. The effect of an alteration of the hormonal or nutritional status of an organism on enzyme-systems will be evaluated. Instruction will be provided in the use of instruments and biochemical methods associated with each project. Prerequisite: Biochem. 10 or equivalent and permission of the department. (Lec. 1, Lab. 4) Tremblay (Grad. #62)

b. Change level of instruction and number of Biochemistry 180, 181 to:
581, 582 (180, 181) General Biochemistry. (Grad. #62)

c. Delete:
Biochemistry II Biochemistry Laboratory Semester II, 1 credit

2. Department of Chemistry

a. Add (new)

Chemistry 204 Molecular Structure in Inorganic Chemistry, Semester II, 3 credits
Systematic analysis of bonding schemes and structural aspects of molecular systems encountered in inorganic chemistry. Special emphasis on electron density distributions, physical methods of analysis, and practical applications of quantum mechanics. (Lec. 3) Prerequisite: Chem. 102. Petersen. (Grad. #61)

Chemistry 205 Chemistry of the Representative Elements Semester I, 3 credits
Guided literature study. Special emphasis placed on compounds of boron, silicon, phosphorus, sulfur, fluorine and related elements of Groups III-VII. (Lec. 3) Prerequisite: Chem. 102. Nelson. (Grad. #61)

Chemistry 303 Light Scattering, Applications to Research Semester I or II, 2 crs.
Thermodynamical and quantum mechanical treatment of radiation scattering from pure liquids and solutions. Emphasis will be upon the application related to molecular structural analysis. (Lec. 2) Prerequisite: Permission of Instructor. In alternate years, next offered 1969-70. Nelson. (Grad. #61).

Chemistry 304 Semiempirical Molecular Orbital Theory Semester I or II, 2 crs.
Description and application of semiempirical molecular orbital calculations to problems in inorganic chemistry. Use of the computer will be emphasized. (Lec. 2) Prerequisite: Permission of Instructor. In alternate years, next offered 1969-70. Petersen. (Grad. #61).

b. Change level of instruction and description of Chem. 321 and 322 to read:

521 (321) Carbanion Theory I, 3 cr.
Modern theories of organic chemistry pertaining to carbanion reactions such as hydrogen transfer, displacement addition to multiple bonds, elimination, condensations and rearrangements. (Lec. 3) Prerequisite: Chem. 21, 22. MacKenzie (Grad. #61).

522 (322) Carbonium Ion Theory II, 3 cr.
Modern theories of organic chemistry pertaining to carbonium ion formation, stabilization, solvolysis and rearrangement. Included will be material on other acid-catalyzed reactions such as ester and ether hydrolysis and electrophilic aromatic substitutions. (Lec. 3) Prerequisite: Chem. 21, 22.
Abell (Grad #61)

3. Department of English

a. Change English 141 American Authors to a two-semester course to read:

English 141, 142 American Authors Semesters I and II, 3 credits
Intensive study of the work of one or two outstanding American writers. English 141: Dickinson, Emerson, Hawthorne, James, Melville, Poe, Thoreau, Twain, and Whitman. English 142: Eliot, Faulknew, Fitzgerald, Frost, Hemingway, O'Neill, Arthur Miller and Tennessee Williams. (Lec. 3) (Grad. #61).

4. Department of History

a. Add (new) (the numbers in parentheses will be used in 1969-70 only).

History 171 (9) East Asian Culture and History
Semester I or II, 3 credits
An introduction to the culture and history of East Asia. The course will emphasize the literary, artistic and philosophical traditions of East Asia especially as these aspects relate to and influence contemporary developments. (Lec. 3) Kim

History 147 (15) History of American Foreigh Relations
Semester I or II, 3 credits
An introductory survey to the diplomatic history of the United States from the American Revolution to the present. The course will review the main currents of American diplomacy with special emphasis on the role of public opinion in the development of foreign policy. (Lec. 3) Crandall

History 115 (58) Introduction to Western Cultural History
Semester I or II, 3 credits
A survey of the intellectual and cultural history of the Western world from the Renaissance to the present. Not open to students who have passed History 4. (Lec. 3) Hermanson

5. Department of Physical Education for Men

a. Change the number only of Physical Education 37S, Elementary School Physical Education (offered in the Summer Session only) to Physical Education 137MW, Elementary School Physical Education (offered in Summer Session only). (Grad. #61)

6. Department of Theatre

a. Add (new)

Theatre 161 Principles and Theories of Theatrical Costuming I
Semester I, 3 credits
Analytical study of fashions, modes and manners in western civilization as required for modern theatrical production. Greek through the Renaissance. (Lec. 3) Prerequisite: Junior standing or permission of the Instructor. Staff. (Grad. #61)

Theatre 162 Principles and Theories of Theatrical Costuming II
Semester II, 3 credits
Continuation of Theatre 161, from the Renaissance to the present. (Lec. 3) Prerequisite: Theatre 161 or permission of the Instructor. Staff. (Grad. #61)

B. College of Engineering

1. Department of Chemical Engineering

a. Add (new)

Ch.E. 137 Materials Engineering I,II 3
Introduction to engineering aspects of the chemical and physical properties and fundamentals of the solid state. Structure and properties of engineering materials with emphasis on ceramics, polymeric and composite materials. (Lec. 3) Prerequisite: Chem. 10 or permission of department. Gielisse (Grad. #59)

Ch.E. 237 **Advanced Materials Engineering** II, 3
Emphasis on the engineering properties, molecular design and applications of materials. Synthesis fabrication and processing of materials. Effects of environment on materials, materials products, devices and systems. (Lec. 3) Prerequisite: Ch.E. 137, and Physics 61 or 71. Giellisse (Grad. #59).

2. Department of Mechanical Engineering and Applied Mechanics

a. Add (new): (Grad. #61)

M.E. - 217 (E.E. - 217) - **Magnetofluidmechanics** **I** or II, 3
A formulation of the basic concepts and equations governing the interaction between electromagnetic fields and a moving, electrically conducting, continuum fluid. Wave motions in MFM systems, and engineering applications. (Lec. 3) Prerequisite: M.E. - 155 plus E.E. - 211 or Phys. - 172, or permission of instructor. Lessmann

M.E. 224: Advanced Kinematics and Linkage Design Semester I, 3 credits
A course to cover systematics of mechanisms and synthesis of linkage design. (Lec. 3).
Prerequisite: ME 123 Instructor: Hatch

M.E. 157 (or O.E. - 157) Fluidics II. 3
Description and analysis of various fluidic devices with special emphasis on jet attachment devices. Fluid circuit theory including the design of fluidic systems for special applications.
(Lec. 3) Prerequisite: ME 54 Wilson

b. Change the Mechanical Engineering curriculum in the second semester of the senior year by replacing ME 176 with Chemical Engineering 137.

c. Delete ME 176 Engineering Materials Science contingent upon approval of Chem. Eng. 137 (Grad. #61).

C. College of Home Economics

1. Department of Home Management

a. Change credits from 2 to 3 and change descriptions of HM 1, 3, and 4 to read (old numbers are in parentheses):

210 (1) Management in Family Living I and II, 3
Interaction of resources, goals, and managerial processes in the home seen in the context of the larger community. Applications primarily in the area of human resources. (Lec. 3) Crandall and Moore

320 (3) Family Economics I and II, 3
Factors affecting family financial decisions and their effect upon the individual family and the community. (Lec. 3)
Prerequisite: HM 210 or permission of department.

340 (4) Family Housing I and II, 3
Evaluation and study of types of housing in relation to the family and community. Emphasis on socio-economic factors, housing laws, and aesthetic qualities concerned with housing. (Lec. 3)
Prerequisite: HM 210 or permission of department.
Fry and Noring

b. Change core requirements for Home Economics, Group II to read:

210 HM (1) Management in Family Living	3 cr.
320 HM (3) Family Economics	3 cr.
340 HM (4) Family Housing	3 cr. choice of one
330 HM (33) Home Furnishings	3 cr.
Total	6 cr.

Change total credits in Home Management core requirements from 4-5 to 6 credits.

c. Change titles and descriptions of HM 31, 33, and 41. (These are informational changes and do not require Senate approval. Old numbers are in parentheses):

345 (31) House Planning I, 3
Fundamental principles of house planning concerning orientation, space relationships, function, flexibility, aesthetic and economic factors.
(Lec. 2, Lab. 2) Alternate years. Prerequisite: HM 340 Fry

330 (33) Home Furnishings I and II, 3
Discussions and problems to develop discrimination and creative ability in selection of adequate and well-designed home furnishings. (Lec. 3).

370 ~~390~~ (41) Home Management Residence I and II, 4
Residence in the Home Management Center with experience in group relationships, application of managerial principles, and solving managerial problems. Prerequisite: HM 210 and F&NS 1. Noring

D. Graduate Curriculum in Community Planning and Area Development

1. Add (new)

Com. Plan. 251, 252 Problems in Planning Practice
Sem. I and II, 3 credits
Individual research, study, and reporting on some particular phase of planning practice to be chosen in consultation with the instructor. To familiarize students with the actual field operation of planning, and to introduce them to the practical difficulties of research, community involvement, and final reporting. Problems of planning with inner city communities will be emphasized. (Lab. 6)
Prerequisite: Permission of Instructor, Friday. (Grad. #61)

E. Graduate School of Oceanography

1. Add (new)

Genetics 283 (or Ocean. 283) Quantitative Genetics I
Semester I, 3 Cred.
Quantitative approach to population genetic phenomena. Derivation of theoretical genetic formulae. Expected genetic change and its constituent genetic parameters. (Lec. 3), Prerequisites: Genetics 152, Math. 41, or permission of Instructor. Diamantis (Grad #61)

Genetics 284 (or Ocean. 284) Quantitative Genetics II
Semester II, 3 credits
Interpretation and application of theoretical genetic formulae and parameters (Lec. 3) Prerequisites: Genetics 283 or permission of Instructor. Diamantis. (Grad. #61).

F. Colleges of Arts and Sciences, Engineering, Home Economics, Resource Development; Graduate School of Oceanography, and Institute of Environmental Biology.

Proposal for a Master of Science Degree Interdisciplinary Program in Environmental Health Sciences. (Grad. #60).

Comment:

The last 25 years has seen an enormous growth in health services required by an increasingly complex society. It is nationally recognized that such demands have outstripped our ability to train sufficient numbers of qualified personnel to insure high standards of community health and

sanitation. Recent projections made by the NIH Bureau of Medical Manpower Committee emphasize a tremendous demand for these people during the next decade. To cope with the problems posed by a steadily-threatened environment, personnel must be trained at a level beyond what was considered adequate a few years ago. The introduction into the environment of chemical pesticides, radioactive materials, factory wastes, sewage, and air pollutants has created problems which require personnel educated at a graduate degree level. These professional people need not only to know the health and sanitation aspects associated with the new technology but must also be able to be of assistance to communities struggling with problems of city planning, government, and vast social changes.

At the present time the University of Rhode Island has an eminently qualified faculty offering well-established, broadly based courses and guidance at the graduate level which would fit the needs of this program. A major strength at the University of Rhode Island is a traditionally strong emphasis in the Biological Science area. The establishment in 1967 of an Institute of Environmental Biology has done much to create a cooperative, interdisciplinary atmosphere across this very large segment of the University. In addition, Colleges of Pharmacy and Nursing are located on the campus, and their close connection with many health services in the state can add much to broaden the program.

Pertinent courses are offered in several of the colleges by at least 12 departments. Most of these departments are already in close cooperation in other programs and fit very well into the area of Environmental Health. It is believed that the establishment of this Master's degree program at the University of Rhode Island would help satisfy the needs of the state and the entire region in training better qualified personnel in this critical area of environmental health.

No additional funds will be required to supplement present physical facilities or library resources. Normal expected expansion of the University is adequate for the expected growth of the program.

This program incorporates the concept of a "core" curriculum of 32 credits and requires an additional 12 credits in one of several options (e.g. Sanitation, Air Pollution, Foods, Food Chemistry, Sanitation; Public Health Administration).