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Curricular Report No. 1988-89-5 from the Graduate Council to the Faculty Senate

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THE UNIVERSITY OF RHODE ISLAND
Kingston, Rhode Island

FACULTY SENATE
BILL

Adopted by the Faculty Senate

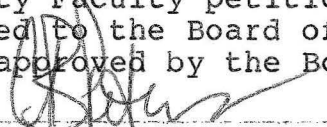
TO: President Edward D. Eddy
FROM: Chairperson of the Faculty Senate

1. The attached BILL, titled Curricular Report No. 1988-89-5 from the Graduate Council to the Faculty Senate

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 April 13, 1989.
(date)
4. After considering this bill, will you please indicate your approval or disapproval. Return the original or forward it to the Board of Governors, completing the appropriate endorsement below.
5. In accordance with Section 10, paragraph 4 of the Senate's By-Laws, this bill will become effective May 4, 1989, 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 Governors for their approval; or (4) the University Faculty petitions for a referendum. If the bill is forwarded to the Board of Governors, it will not become effective until approved by the Board.

April 14, 1989
(date)


C. B. Peters
Chairperson of the Faculty Senate

ENDORSEMENT

TO: Chairperson of the Faculty Senate
FROM: President of the University

Returned.

- a. Approved .
b. Approved subject to final approval by Board of Governors _____.
c. Disapproved _____.

April 27, 1989
(date)


President

UNIVERSITY OF RHODE ISLAND
The Graduate School

CURRICULAR REPORT FROM THE GRADUATE COUNCIL TO THE FACULTY SENATE
REPORT NO. 1988-89-5

At its Meeting No. 273 held on March 17, 1989 the Graduate Council considered and approved the following curricular matters which are now submitted to the Faculty Senate for information or confirmation as indicated.

I. Matters of Information.

A. College of Human Science and Services

1. Department of Education

a. Temporary Course

EDC 904X This Kid Doesn't Fit: A New Look at Discipline SS,3
Theory behind constructive discipline, use of Belief Systems
Theory to help teachers encourage positive self-discipline within
the students workshop. Russell

II. Matters Requiring Confirmation by the Faculty Senate.

A. College of Arts and Sciences

1. Department of Psychology

a. Add (new)

PSY 533(510) Advanced Quantitative Methods in Psychology II,3
Advanced quantitative methods applied to psychology. Survey of
methods such as multiple regression, multivariate analysis of
variance, discriminate analysis, canonical correlation, principal
component analysis, and factor analysis. Applications involve
BMDP, SAS, or SPSS computer programs. (Lec 3) Pre: PSY 532 or
consent of department. Velicer/Harlow

b. Deletion

PSY 510 Intermediate Quantitative Methods

c. Crosslisting

PSY 612 Structural Modeling as EST 612

2. Department of Microbiology

a. Add (new)

MIC 502 Techniques in Microbial and Molecular Genetics II,2
Techniques for the study of molecular genetics in bacteria and
bacteriophages including mutant isolation, phage growth,
transformation, transduction, conjugation, DNA isolation and
analysis, and gene cloning. (Lab 6) Pre: MIC 413 and 415 or
BOT 437 (ZOO 437) or BOT 454 or BOT 522 or permission of
instructor. Nelson/Cohen

3. Department of Zoology

a. Changes

ZOO 567 Natural Selection - credit and prerequisite changed to:
3 credits; Pre: ZOO 262 and BOT 352 or ZOO 260 or
permission

4. Department of Computer Science and Statistics
a. Add (new)

CSC 517 Design and Analysis of VLSI Systems I or II,3
Illustration and analysis of VLSI algorithms and architecture.
Emphasis on design of very large-scale integrated circuits,
related methodologies, and theoretical foundations. VLSI
technologies, fabrication, automated design tools for various
problems. (Lec 3) Pre: CSC 411 and either CSC 340 or 447.
Staff

CSC 541 Design and Analysis of Algorithms II I or II,3
Advanced topics in the design and analysis of algorithms
including combinatorial optimization and graph algorithms;
computational geometry; primality and factoring, public-key
cryptography; minimal comparison sorting; size and delay in
switching circuits. (Lec 3) Pre: CSC 440. Staff

CSC 542 Mathematical Analysis of Algorithms I or II,3
Mathematical techniques for the analysis of algorithms. Sums and
products; finite difference calculus; properties of binomial
coefficients; Stirling, harmonic and Fibonacci numbers;
recurrence relations; generating functions; asymptotic
approximation. Case studies. (Lec 3) Pre: CSC 440. Staff

CSC 544 Theory of Computation I or II,3
Automata and formal languages; undecidability; time and space
complexity classes and relations between them; hierarchy and gap
theorems; Savitch's theorem; alternating Turing machines; the
complexity class NC. (Lec 3) Pre: CSC 340 or 447. Staff

b. Deletion

CSC 551 Advanced Numerical Computation II

c. Changes

CSC 520 Software Engineering - renumbered 420 and description
and prerequisite changes (See p. 8 of this report)

CSC 536 Database Management Systems - renumbered 436 and
description and prerequisite changes (See p. 8 of this report)

CSC 540 Analysis of Algorithms - renumbered 440 and title,
description and prerequisite changes (See p. 8 of this report)

CSC 545 Formal Languages and Automata Theory - renumbered 445
and prerequisite change (See p. 8 of this report)

CSC 502 Theory of Compilers - description and prerequisite to
read:

CSC 502 Theory of Compilers I or II,3
An advanced course in compiler construction covering advanced
parsing techniques, compiler-writing tools, type checking and
type inference, code optimization, and compiling non-standard
language features. (Lec 3) Pre: 402. Staff

hierarchical, and network approaches to database organization; concurrency control; distributed systems; security and integrity. (Lec. 3) Pre: 331. Staff

- 9) CHANGE: Level, number, title, description and prerequisite for CSC 540:

CSC 440 (540) Design and Analysis of Algorithms I (I or II, 3) Algorithm design and analysis techniques; inherent computational complexity. Fast algorithms for sorting and searching, string pattern matching, polynomial and matrix calculations, properties of graphs and networks. NP-completeness and intractability. (Lec. 3) Pre: 331. Staff

- 10) CHANGE: Level, number and prerequisite for CSC 545:

CSC 445 (545) Formal Language Automata Theory (I or II, 3) Abstract models of computation; deterministic and nondeterministic machines. Grammars and formal languages. Finite state machines and regular expressions; pushdown automata and context-free languages; Turing machines. Effective computability and unsolvable problems. Pre: 340. Staff

2. College of Human Science and Services

Department of Textiles, Fashion Merchandising and Design

- CHANGE: Level and number for TMD 546:

TMD 406 (546) Historic Furniture (I, 3) Chronological study of the development of furniture; factors which influence style and production; characteristics of style; and influence of historic furniture on later periods. (Lec. 3) Pre: permission of instructor. Higa

3. College of Resource Development

Department of Plant Sciences

- 1) ADD: PLS 471 Plant Improvement I (I, 3) Plant cell and tissue culture methodologies particularly as they relate to the development and selection of improved plant varieties through the modern approaches of plant biotechnology.

(Lec. 3) Pre: ASP 352 or BOT 352 and BOT 245. In alternate years, next offered Fall, 1989. Krul

- 2) DELETE: PLS 413 Plant Cell and Tissue Culture (I, 3).

- 3) CHANGE: Title, description, method of instruction and prerequisite for PLS 472:

PLS 472 Plant Improvement II, (II, 3) Traditional breeding and contemporary approaches to the improvement of economic crops with a focus on emerging strategies and opportunities utilizing the tools of molecular biology for gene transfer. (Lec. 3) Pre: ASP 352 or BOT 352 and BOT 245. In alternate years, next offered, Spring, 1990. Chandlee

CSC 511 Advanced Computer Organization - description and prerequisite to read:

CSC 511 Advanced Computer Organization I or II,3
Evaluation of high performance computer systems with respect to architectures, operating systems, and algorithms. High-speed conventional machines; array processors; multiprocessors; data flow machines; RISC architectures; VLSI-based machines. (Lec 3)
Pre: 411. Staff

CSC 550 Advanced Numerical Computation I - title, description and prerequisite to read:

CSC 550 Advanced Numerical Computation I or II,3
Design of efficient numerical algorithms under various models of computation. Topics include polynomial and integer computations, computational linear algebra with applications to combinatorial optimization, lower bounds. (Lec 3) Pre: CSC 450. Staff

CSC 581 Artificial Intelligence - title, description and prerequisite to read:

CSC 581 Special Topics in Artificial Intelligence I or II,3
Topics of specialized or current interest, which may change. Topics may include expert systems, natural language processing, neural network models, machine learning. AI applications in remote sensing. (Lec 3) Pre: 481 or permission of instructor. May be repeated with permission. Staff

d. Change in program requirements for the M.S. degree in Computer Science to read:

Program requirements for thesis option: A minimum of 24 course credits (exclusive of thesis) and a thesis. At least 15 course credits must be earned at the 500 level or above. At least 18 course credits must be from CSC courses. Completion of at least 6 credits in one of the following areas and 3 credits in each of the other two: Architecture and Systems: CSC 511, 512, 517; Mathematical Foundations: CSC 541, 542, 545; Programming Languages: CSC 501, 502, 504.

Program requirements for non-thesis option: A minimum of 30 course credits, including at least one course with a substantial paper involving significant independent research. At least 21 course credits must be earned at the 500 level or above. At least 24 course credits must be from CSC courses. Completion of at least 6 credits in each of two of the following areas and 3 credits in the third: Architecture and Systems: CSC 511, 512, 517; Mathematical Foundations: CSC 541, 542, 545; Programming Languages: CSC 501, 502, 504. Passing a written comprehensive examination.

5. Department of Biochemistry and Biophysics
a. Add (new)

BCP 551 Topics in Biochemistry for the Clinical Scientist I,II or SS,3
Description of the major components of biochemistry as it relates to the medical sciences. Major concepts include molecular genetics, regulatory biochemistry, and medically related applied biochemistry. Offered every third year. Staff

6. Department of Microbiology
a. Add (new)

MTC 590 Special Problems in Clinical Chemistry I,II,SS,1-6
Intensive tutorial work, research, and readings in clinical chemistry. Pre: Graduate standing and permission of department. Staff

MTC 591 Special Problems in Clinical Microbiology I,II,SS,1-6
Intensive tutorial work, research, and readings in clinical microbiology. Pre: Graduate standing and permission of department. Staff

MTC 592 Special Problems in Hematology I,II,SS,1-6
Intensive tutorial work, research and readings in hematology. Pre: Graduate standing or permission of department. Staff

MTC 593 Special Problems in Immunohematology I,II,SS,1-6
Intensive tutorial work, research, and readings in immunohematology. Pre: Graduate standing and permission of department. Staff

b. Change in program requirements for the M.S. degree in Clinical Laboratory Science:

Delete BCP 581 and add BCP 551 as a requirement

7. Library and Information Studies
a. Changes in course descriptions as follows:

LSC 502 Library Administration
The scientific analysis of library administration ranging from the community survey and formulation of goals and objectives, to case studies on public and technical services, staffing and personnel, and buildings.

LSC 504 Reference and Information Services
substitute "information sources" for "reference materials"

LSC 511 Comparative Librarianship
The comparative analysis of librarianship in selected countries in various regions of the world, including the social, cultural, economic and political factors, and the study of the role of international organizations in library and information science.

LSC 520 The School Library/Media Center
substitute "or permission of instructor" for "and permission of instructor"

LSC 521 Public Library Service

The study of the methods for management and planning in public libraries for creating programs, and for evaluating services and their effects on the public served. The identification of alternative solutions to budgeting and personnel management problems.

LSC 547 Online Searching and Services
substitute "computerized" for "automated"

LSC 550 Advanced Cataloging
substitute "descriptive" for "description"

b. Change in program requirements for both the MLIS and Cooperative MLIS/MPA programs:

Delete LSC 520, 521, 522 or 523.

c. Change in program requirements for the Master of Library and Information Studies degree:

Add at end of paragraph "...and the University of New Hampshire at Durham."

B. College of Resource Development

1. Department of Food Science and Nutrition

a. Change

FSN 511, 512 Food Science and Nutrition Seminar into two separate courses with new titles and descriptions to read:

FSN 511 Food Science and Nutrition Seminar I I and II,1 Reports and discussions of current topics in food science and nutrition, as well as oral reports of theses and dissertation research topics in progress. (Lec 1) Pre: Graduate standing or permission of department. Staff

FSN 512 Food Science and Nutrition Seminar II I and II,1 Critical review of oral presentations presented in FSN 511. Provides student with experience in communicative skills necessary to evaluate and critique scientific presentations. Attendance is required of all graduate students in residence when not enrolled in FSN 511. (Lec 1) Pre: Graduate standing. S/U credit. Staff

b. Change in Master's and Doctoral program requirements for Food Science and Nutrition to read:

Program Requirements (Master's): Thesis; FSN 503; 2 credits of FSN 511; a minimum of 3 credits in biochemistry, chemistry, microbiology, or physiology; a minimum of 6 credits in food science (FSN 431 plus one 500-level course) or 6 credits in nutritional science (FSN 441 plus one 500-level course). If the student has taken FSN 431 or 441 as an undergraduate, alternate courses should be taken in the same area. All students in residence are expected to be continuously registered for seminar as FSN 511 or 512 but no more than 2 credits of FSN 511 can be used for program credit.

Program Requirements (Doctor of Philosophy): Same as for Master's degree, plus statistics (EST 532 or equivalent, a total of 3 credits in FSN 511, and a research problem (FSN 691,692) under an advisor other than the major professor. Each candidate shall also gain teaching experience in at least one college level course. All students in residence are expected to be continuously registered for FSN 511 or 512, but no more than 3 credits of FSN 511 can be used for program credit. Qualifying examination is required for students admitted without a Master's degree or without a strong background in the proposed area of study.

C. College of Human Science and Services

1. Department of Textiles, Fashion Merchandising and Design

a. Changes

TMD 546 Historic Furniture - to be renumbered 406

b. Changes in program requirements in the M.S. degree in Textiles, Clothing and Related Art, Historic Textile and Costume Specialization to: (changes and additions underlined)

For historic textile and costume specialization: thesis option: minimum of 30 credit hours including TMD 510, 520, 524, 533, 599, completion of a supervised internship (TMD 530, 2-4cr), and 8-10 elective credits, half of which must be TMD credits numbered 500 or above. Non-thesis option: 30 credit hours including TMD 510, 520, 524, 533, 550, 560, completion of a supervised internship (TMD 530, 2-4 cr), and 8-10 elective credits, half of which must be TMD credits numbered 500 or above. A minimum of 9 credits is required to achieve a competency level in an allied field such as art history, history, sociology, or anthropology. This may result in a program of more than 30 credit hours. The committee may elect to waive this requirement if the candidate has had adequate preparation in the allied field as an undergraduate. Candidates lacking undergraduate courses in textile science and historic costume may be required to make up deficiencies without graduate credit.