1990

Curricular Report No. 1989-90-9 from the Graduate Council to the Faculty Senate

University of Rhode Island 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. 1989-90-9 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 May 10, 1990.

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 31, 1990, 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.

May 11, 1990
(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 _.

May 22, 1990
(date)  
President

Form revised 4/86
At its Meeting No. 282 held on April 13, 1990, 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 Human Development, Counseling and Family Studies
         a. Temporary Course
      HCF 569X Assessment in Family Therapy I,3
         Administration and interpretation of assessment instruments for treatment planning and evaluation. Ethical, legal, and theoretical issues related to family systems assessment are discussed. (Sem) Pre: Graduate MFT student or permission of instructor. Adams

   B. College of Pharmacy
      1. Department of Pharmaceutics
         a. Temporary Course
      PHC 670X Advanced Pharmacokinetics I,2
         Application of classical compartmental and non-compartmental analyses to drug absorption and disposition in linear and non-linear systems. (Lec 2) Pre: PHC 535 or permission of instructor. Rosenbaum

II. Matters Requiring Confirmation by the Faculty Senate.
   A. Graduate School of Oceanography
      1. Change
      OCG 610,611 Fluid Dynamics to read as follows:
      OCG 610 Geophysical Fluid Dynamics I I,3
         Natural world fluid dynamics emphasizing ocean circulation. Classical fluid dynamics; GFD fundamentals (rotation and stratification); Taylor-Proudman theorem; potential vorticity; planetary waves; geostrophic contours; shallow water quasi-geostrophic theory; frictional layers. (Lec 3) Pre: MCE 551 or equivalent and permission of instructor. Rothstein

      OCG 611 Geophysical Fluid Dynamics II II,3
         Continuously stratified quasi-geostrophic theory; classical and modern theories of the wind driven ocean circulation; stability theory; oceanic convection; wave-mean flow interactions; ageostrophic dynamics; topographical effects. (Lec 3) Pre: OCG 610. Rothstein
B. College of Resource Development
   1. Department of Fisheries, Animal and Veterinary Science
      a. Add (New)

      ASP 581  Current Topics in Molluscan Aquaculture  I,3
      Review and critical analysis of recent literature within the field
      of molluscan biology with emphasis on application to mariculture
      techniques. Student presentation of selected topics and field
      trips to state-of-the-art mariculture facilities. (Lec 3) Pre:
      graduate standing or senior standing with permission of
      instructor. Rice

C. College of Arts and Sciences
   1. Library and Information Studies
      a. Add (New)

      LSC 535  Public Library Services to Children and Young Adults II,3
      Public library services to children and young adults, with
      emphasis on the development of programs to meet library goals and
      objectives. (Lec 3) Pre: LSC 502 or permission of instructor.
      Eaton

   2. Clinical Laboratory Science
      a. Changes in program requirements for M.S. in
         Clinical Laboratory Science to read:

         Program requirements:  36 credits including BCP 551, EDC 505 or
         582, EST 407 or 408 or MGS 530, MTC 510, 512, 513, and 6-9 credits
         in the area of specialization (MTC 502, 543 for clinical
         chemistry; ASP 534, MTC 501, 541 for clinical microbiology; MTC
         520, 521, 530 for hematology and immunohematology). The remainder
         of courses are selected from other clinical laboratory science
         specialties, education, or management. Comprehensive written
         examination. Major research paper. The following courses are
         recommended for a minor specialization in health care management:
         PHP 651, 652, 680. These courses are recommended for a minor
         specialization in adult education: EDC 505, 529, 582, 583, 584.

      b. Change in title for MTC 530 to read:
         MTC 530  Advanced Immunohematology

      c. Deletions
         MTC 503  Advanced Hemostasis and Coagulation
         MTC(MIC) 515  Infectious Diseases
         MTC 531  Advanced Immunohematology II
         MTC 532  Clinical Endocrinology
3.

ZOO 668(543) Biology of Reproduction in Animals II,3
Evolution of sexual reproduction, neuroendocrine signals, and behavioral controlling mechanisms in diverse phyla. (Lec 3) Pre: ZOO 545, 561 or 567. Twombly, Specker, Cobb

b. Add (New)
ZOO 930 Workshop in Zoology Topics for Teachers I,II, SS, 0-3
Especially designed for secondary school science teachers. Basic topics in zoology from an advanced or pedagogical perspective. (Lec or Lab) Pre: Certified teacher. Staff

4. Department of Marine Affairs
a. Add (New)
MAF 589 Master’s Project Research I or II,3
Preparation of a major research paper for MMA students under the guidance of a member of the graduate faculty. Pre: Graduate standing in the MMA program. Staff (to be sectioned).

b. Change in program requirements for the MMA degree
Delete MAF 571; Add MAF 589

5. Department of Physics
a. Deletions
PHY 585 Acoustic Measurements
PHY 661 Nuclear Physics

b. Changes to read as follows:
PHY 510 Mathematical Methods of Physics I I,3
Topics designed to include applications in Physics. Vector and tensor analysis; linear algebra; coordinate systems. Determinants, matrices; introductory group theory. Infinite series, complex analysis, analytic properties, conformal mapping, calculus of residues. Fourier analysis and Laplace transforms. (Lec 3) Pre: Permission of department. Staff

PHY 520 Classical Dynamics I,3

PHY 525 Statistical Physics I I,3
PHY 530 Electromagnetism I

PHY 560 Experimental Methods in Condensed Matter Science I or II, 3
Fundamental experiments on topics related to departmental research. Experimental methodology. (Lec 3) Pre: PHY 484 or equivalent. Staff

PHY 570 Quantum Mechanics I

PHY 580 (650) Condensed Matter Physics I

PHY 590 Faculty Project
A special project directly related to the research program of an individual faculty member (Lec or Lab according to nature of project). Credits not to exceed 6. Pre: Permission of department. Staff

PHY 591 Special Problems
Advanced study under the supervision of a faculty member, arranged to suit the individual needs of the student. (Lec or Lab according to nature of problem). Credits not to exceed 6. Pre: Permission of department. Staff

PHY 610(511) Mathematical Methods of Physics II
PHY 625(620) Statistical Physics II II,3
Equilibrium critical phenomena (critical exponents, scaling
relations, multi-critical phenomena). Exact solutions.
Renormalization group theory and other approximate methods.
Critical behavior of magnets, fluids and surfaces. (Lec 3) Pre:
PHY 525, 670. Staff

PHY 630(531) Electromagnetism II I,3
Radiating systems, scattering and diffraction. Special theory
of relativity. Dynamics of relativistic particles and
electromagnetic fields. Collisions between charged particles,
energy loss and scattering. Radiation by moving charges.
Multipole fields. (Lec 3) Pre: PHY 530. Staff

PHY 660 Nuclear and Particle Physics II,3
Weak, strong and electromagnetic interactions. Nucleon-nucleon
potential, shell model, optical model. Isospin, unitary symmetry,
quark model of hadrons. Scattering and reaction theory of
few-body systems. Deuteron. Relativistic nuclear and particle
phenomena. (Lec 3) Pre: PHY 570, 670. Staff

PHY 670(571) Quantum Mechanics II I,3
Symmetry (parity, translation, time-reversal). Time-independent
(dependent) perturbation theory, variational methods. Identical
particles. Scattering theory (Lippman-Schwinger equation, Born
series, partial waves, resonances, optical theorem, inelastic
scattering). Applications. Relativistic quantum mechanics. (Lec
3) Pre: PHY 570, 610, 530. Concurrent registration permitted.
Staff

PHY 680(651) Condensed Matter Physics II II,3
Interacting systems. Green’s functions. Second quantization.
Landau theory of quasi-particles. Schrodinger and Heisenberg
pictures. Many-body Green’s functions. Perturbation series,
diagrammatic analysis. Dielectric response. Thermal properties.
Phonons in metals. (Lec 3) Pre: PHY 580. Staff

c. Changes in Specializations to read as follows:
Acoustics and optics: underwater acoustics; acoustic imaging;
ultrasonics; acousto-optical transducers; fiber optics.
Astronomy: astrometry; differential photometry. Condensed matter
theory: low-dimensional physics; statistical mechanics;
magnetism; surface magnetism; Fermi liquid, spin-polarized helium
and hydrogen, nonlocal hydrodynamics; chemisorption;
superconductivity; alloys; hydrogen in metals; defects in solids.
Interdisciplinary physics: computational physics;
magnetochemistry, dissipative chaos applied to marine and climate
phenomena. Liquid state: liquid crystals; liquid helium; ferro
fluids; turbulence; superfluids. Low-temperature physics: ionic
mobilities; finite droplet effects; magnetic susceptibility;
specific heats; magnetic cooling; quantum solids, liquids and
gases. Physics of inert gas clusters. Neutron physics:
ultra-cold neutrons; neutron optics. Neutron scattering: small-angle scattering; solution scattering; magnetic surfaces and fine particles; crystal structure; amorphous magnets; inelastic scattering; phonons and spin waves; superconductivity. Nuclear theory: direct and inverse scattering theory; few-nucleon systems. Surface physics: electronic and structural properties of surfaces including phase transitions using LEED, AUGER, X-rays, and BNL Synchrotron Facility.

d. Change in the program requirements for the Master of Science in Physics

Add: PHY 525 to the list of required courses.

e. Change in the program requirements for the Ph.D. in Physics

to read-PHY 510, 520, 525, 530, 570, 580, 610, 625, 630, 670, and 680. (rest remains unchanged)

D. College of Nursing

1. Change in required number of program credits for the Master of Science in Nursing as follows:

Increase in the required number of program credits from 36 to 40 for all concentrations except Primary Health Care, where the request is for an increase from 40 to 41.

2. Changes description and credits to:

NUR 562 Advanced Clinical Study of Nursing Practice in Critical Care I or II, 6

NUR 563 Advanced Clinical Study of Nursing Practice in Gerontology I or II, 6
Practicum in the study and application of theoretical knowledge of practice and aging in advanced gerontological nursing. Analysis of central health problems and nursing strategies relevant to older people. (Lab 12) In alternate years. Next offered 1990-91. Pre: NUR 501, 502 and credit or concurrent enrollment in NUR 561. Burbank
NUR 564 Advanced Clinical Study of Nursing Practice in Parent-Child Health I or II, 6

NUR 513 Advanced Mental Health Nursing II - credits changed from 2 to 3

NUR 514 Practicum in Advanced Mental Nursing II - credits changed from 4 to 6

NUR 542 Practicum in Nursing Education - credits changed from 3 to 6

NUR 552 Practicum in Nursing Administration - credits changed from 3 to 6

NUR 521 Theoretical Study of Major Problems in Nursing Practice - prerequisite changed to "NUR 501, 502 and concurrent enrollment in NUR 522."

NUR 522 Practicum in the Study of Major Problems in Nursing Practice - prerequisite changed to "NUR 501, 502 and concurrent enrollment in NUR 521."

NUR 510 Advanced Leadership and Nursing Role Development - prerequisite changed to "Graduate standing."

3. Add (New)
NUR 520 Graduate Study Seminar I,II,1
A seminar designed to facilitate the synthesis and examination of knowledge gained in the master’s program in regards to nursing knowledge development, advancement of nursing practice and leadership role development. (Sem 1) Pre: Completion of 30 graduate program credits and concurrent enrollment in final sequence of concentration courses. Staff