

**THE GRADUATE SCHOOL -- UNIVERSITY OF RHODE ISLAND
CURRICULAR REPORT FROM THE GRADUATE COUNCIL TO
THE FACULTY SENATE**

REPORT NO. 3, 2011-2012; 12 December 2011

New Courses:

- 1) College of Arts and Sciences
Department of Computer Science and Statistics

CSC 523 Advanced Intrusion Detection and Defense (4)

Presents advanced techniques and research on intrusion detection and network defense. Topics may include securing mobile devices, machine learning for intrusion detection, distributed firewalls, virtual private clouds, advanced persistent threats. (Lec 3, Lab 2). Pre: CSC 423 or permission of instructor.

CSC 524 Advanced Incident Response (4)

Presents advanced techniques and research for incident response and live forensics. Topics may include live forensics in cloud environments, visualization of security incidents, and live forensics in the smart grid. (Lec 3, Lab 2). Pre: CSC 424 or permission of instructor.

- 2) College of the Environment and Life Sciences
Department of Geosciences

GEO 920 Geoscience Workshop for Teachers (1-3)

Current issues in Geosciences. Specific topics offered for in-service teachers and administrators. May be repeated with different topic. (Workshop) Pre: teacher certification. S/U grading

- 3) College of Engineering
Department of Ocean Engineering

OCE 516 Biomimetrics in Ocean Engineering (3)

Biologically-inspired design mechanics in ocean engineering applications. Topics include unsteady propulsion (fish swimming), dynamic lift, high-speed maneuvering, energy extraction, drag reduction, and optimization. Pre: OCE 515 or permission of instructor

Department of Civil and Environmental Engineering

CVE 540 Public Transportation Systems (3)

Bus and rail modes; technological characteristics on capacity, service quality, costs; analysis, evaluation; performance monitoring, route and network design; frequency determination; vehicle scheduling; advanced operations strategies. Pre: CVE 346 or permission of instructor.

CVE 586 Earth Retaining Structures (3)

Analysis and design of earth retaining structures. Advanced seepage analysis. Mechanically stabilized earth walls, anchored bulkheads, braced excavations,

and cofferdams. Slope stability analysis and slope stabilization. Pre: 381 or equivalent

Additional Curricular Matters

College of the Environment and Life Sciences

MEMORANDUM

TO: Faculty Senate Curriculum Committee

FROM: CELS Curriculum Committee

DATE: October 14, 2011

RE: Catalog Description Change for the Biological and Environmental Sciences Graduate Degrees (M.S. and Ph.D.)

The College of the Environment and Life Sciences requests the addition of the following text to the catalog description of the interdepartmental Biological and Environmental Sciences graduate program.

Add new text under ***Graduate Specialization Groups:***

Sustainable Agriculture and Food Systems (SAFS): this graduate research group takes a systems-based, interdisciplinary approach to the biological and environmental sciences as applied to agriculture, aquaculture, fisheries, nutrition, and food safety. Our diverse group of faculty, with contributors from both the natural and social sciences, uses a broad array of approaches, from molecular to ecosystem-based, to help achieve the economically sustainable production, management, consumption, and utilization of plants and animals for the development of healthy communities. Areas of research include animal science (reproduction, nutrition, management, and health), aquaculture (ecology, physiology, nutrition, and aquatic pathology), horticulture (fruit and vegetable production, environmental horticulture, and turfgrass management), entomology and biocontrol of invasive species, nutrition and food safety, and soil science.

Rationale:

The existing catalog description includes descriptions for four specialization groups: Cell and Molecular Biology, Integrative and Evolutionary Biology, Ecology and Ecosystem Sciences, and Environmental and Earth Science. The addition of this group description allows us to represent a research focus area that was not well captured in the other 4 groups. The additional of this text will better communicate to prospective students the breadth of graduate research opportunities available in the College under the interdepartmental BES degree program.

The program requirements for the BES degrees (M.S. and Ph.D.) remain unchanged.