UNIVERSITY OF RHODE ISLAND
THE GRADUATE SCHOOL

To: Members of the 2013-2014 Graduate Council

From: Nasser Zawia, Dean
Keith Killingbeck, Associate Dean

Date: 22 January 2014

RE: Agenda for Meeting Number 478 of the Graduate Council to be held on Monday 27 January 2014 at 2:00 p.m. in the rectangular Board Room of the Alumni Center.

I. Call to order

II. Approval of Minutes of Meeting Number 476, 25 November 2013, and Meeting 477, 16 December 2013

III. Announcements

A. Recent additions to the Graduate Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Date</th>
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<tbody>
<tr>
<td>JENNIFER BOWEN</td>
<td>BIOLOGICAL SCIENCES</td>
<td>1/10/2014</td>
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<tr>
<td>WOONG KOOK</td>
<td>MATHEMATICS</td>
<td>1/16/2014</td>
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<tr>
<td>CATHY ANN CLARK</td>
<td>MATHEMATICS</td>
<td>1/16/2014</td>
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<tr>
<td>YUNFEI HUANG</td>
<td>PHYSICS</td>
<td>1/16/2014</td>
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<td>FENGFONG LIU</td>
<td>PHYSICS</td>
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<td>DEREK MEREK</td>
<td>PHYSICS</td>
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<td>GEORGES DOSSOT</td>
<td>OCEAN ENGINEERING</td>
<td>1/16/2014</td>
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<td>ROBERT BARTON III</td>
<td>OCEAN ENGINEERING</td>
<td>1/16/2014</td>
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<td>JESSICA LIBERTINI</td>
<td>MATHEMATICS</td>
<td>1/16/2014</td>
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B. Graduate School Forms I

Dr. August proposed the addition of a new choice of ‘results’ to the Graduate School ‘Results of Defense’ forms. The proposal was approved by the Council, and the Graduate School was charged with making minor edits to the choices. The original, and new versions of the choices are attached.

C. Graduate School Forms II

An issue has arisen regarding the ‘Request to Change/Add a Degree Program’ form. At present, the graduate program from which a student would be leaving does not have to approve the student request to depart from the program. This has become an issue based on a request to leave one doctoral program for another after 6.5 years in the original program.

V. Committees

A. Curriculum Committee

I. 400-level courses

Changes

1) College of Arts and Sciences
   Computer Science and Statistics
CSC 402 Compiler Design: Change in title to “Programming Language Implementation.” Change in course description to “Grammars and languages; lexical analysis and parsers; interpreters, translators, and virtual machines; symbol tables and type systems; code generation for real and virtual machines. Students will implement a number of interpreters, translators, and virtual machines for various small languages.” Change in pre-requisites to “CSC 301, and student must be admitted to a degree-granting college.”

CSC 406 Computer Graphics
Change in pre-requisites to “CSC 305, MTH 215 and 243, and student must be admitted to a degree-granting college.”

CSC 411 Computer Organization
Change in pre-requisites to “CSC 301, and student must be admitted to a degree-granting college.”

CSC 412 Operating Systems and Networks
Change in pre-requisites to “CSC 301, and student must be admitted to a degree-granting college.”

CSC 415 Introduction to Parallel Computing
Change in pre-requisites to “CSC 301, and student must be admitted to a degree-granting college. In alternate years.”

CSC 436 Database Management Systems
Change in pre-requisites to “CSC 301 or 412 or permission of instructor, and student must be admitted to a degree-granting college.”

CSC 440 Design and Analysis of Algorithms
Change in pre-requisites to “CSC 340, and student must be admitted to a degree-granting college.”

CSC 445 Models of Computation
Change in pre-requisites to “CSC 340, and student must be admitted to a degree-granting college. In alternate years.”

CSC 350 Fundamentals of Mathematical Computation (CSC 450)
CSC 481 Artificial Intelligence
Change in pre-requisites to “CSC 301 or permission of instructor, and student must be admitted to a degree-granting college. In alternate years.”

Computer Science and Statistics: Digital Forensics and Cybersecurity Courses

CSF 410 Digital Forensics
Change in course code (from CSC 485), change in method of instruction to online.

CSF 414 Digital Forensics Analysis
Change in course code (from CSC 485), change in method of instruction to online.

CSF 424 Live Forensics and Incident Report
Change in course code (from CSC 424), change in method of instruction to online, change in pre-requisites to “CSF 432 or CSF 410.”

CSF 430 Introduction to Information Assurance
Change in course code (from CSC 420), change in method of instruction to online.

2) College of Environment and Life Sciences
   Landscape Architecture

LAR 444 Landscape Architecture Studio III
Change in description, pre-requisites, and offered for graduate credit. “Sustainable design principles and practices. Theoretical and real-world problem solving for individual sites and local communities. Explore sustainability practices, green infrastructure, and public participation. Intended for LAR majors or with permission of instructor. Pre: LAR 344 and 346 or by permission of instructor.”

LAR 445 Landscape Architecture Studio IV: Change designation to “allowable for graduate credit.” Change in description to “Study of comprehensive landscape architectural projects. Coordination of research and preparation of alternative design solutions and work with public agencies and communities. (Lec. 2, Studio 4) Service learning. Intended for LAR majors or with permission of instructor.” Change in pre-requisites to “LAR 443 and 444 or by permission of instructor.”

New Courses:

1) College of Arts and Sciences
   Computer Science and Statistics

CSF 412 Digital Forensics II (4)
Selected focused topics on acquiring and analyzing evidence from digital devices. Details on analysis of specific operating system artifacts.

**CSF 432 Introduction to Network and Systems Security (4)**
This course provides an overview of network and systems security. It further introduces hands-on skills and techniques that are essential to effectively secure the networks and systems of large and small organizations.

**CSF 434 Network and Systems Security (4)**
Advanced security topics including intrusion detection, penetration testing, incident response, malware analysis, and risk management.

**II. 500/600-level courses**

*Changes:*

1) College of Arts and Sciences
   Computer Science and Statistics

**CSF 536: Advanced Intrusion Detection and Defense**
Change in course code and course number (from CSC 523), change in delivery method to online, change in description to “Presents advanced techniques and research on intrusion detection and network defense. Topics may include network traffic analysis, intrusion analysis, machine learning techniques for intrusion detection, data mining for intrusion detection, advanced persistent threats.” Change in pre-requisites to “CSF 432.”

**CSC 524 Advanced Incident Response**: proposed change to **CSF 524**
Change in course code from CSC 524 to CSF 524, change in delivery method to online, change in requisites to “CSF 432 or CSF 410.”

**CSC 586 Topics in Network Forensics**: course to be deleted, replaced by CSF 512

2) College of Business
   MBA Program

**MBA 502 Organizational Behavior**
Course description change to “Examination of the theory, research, and practice of organizational behavior in work settings, focusing on individual differences, communications, group dynamics, motivation, and leadership in the workplace. Cannot be taken for MBA credit if student has already taken MBA 532.”

**MBA 503 Financial Accounting**
Course description change to “Covers basic accounting principles, accounting systems design, and financial reporting issues. Focusing on financial statement analysis techniques necessary to accurately assess a company’s financial position and results of operations. (Lec. 3) Pre: MBA 500. Cannot be taken for MBA credit if student has already taken MBA 533.”

**MBA 504 Financial Management**
Course description change to “Functions and responsibilities of financial managers. Examination of: Financial statement analysis, cost of capital, capital structure, valuation, markets, capital budgeting, working capital, mergers, bankruptcy, multinational finance. (Lec. 3) Pre: MBA 500, 503 or 533, and ECN 590. Cannot be taken for MBA credit if student has already taken MBA 534.”

**MBA 510 Managerial Accounting**
Change in course description and pre-requisites to “Determination of accounting information for the purposes of decision-making, control, and evaluation with emphasis on decision models using accounting information. (Lec. 3) Pre: MBA 500 and MBA 503 or MBA 533. Cannot be taken for MBA credit if student has already taken MBA 537.”

**MBA 550 Managing with Information Resources**
Change in course description and pre-requisites to “Concepts of information technologies and systems as they relate to the information-age organization. Major focus is on how the various information resources can be managed to facilitate organizational effectiveness. Topics include information and communication technologies, decision support and information systems, technology-enabled process re-engineering, and information architecture. (Lec. 3) Cannot be taken for MBA credit if student has already taken MBA 532.”

**MBA 555 Managerial Economics**
Change in pre-requisites to “MBA 504 or 534, 550 or 535, 560 or 536.”

**MBA 560 Operations and Supply Chain Management**
Change in course description and pre-requisites to “The management of manufacturing and service operations. Topics include flow processes, inventories, scheduling, capacity, and operations strategy. (Lec. 3) Pre: MBA 500. Cannot be taken for MBA credit if student has already taken MBA 536.”

**MBA 562 Global Supply Chain Management**
Change in pre-requisites to “MBA 560 or 536.”

**MBA 565 Strategic Management**
Change in pre-requisites to “All M.B.A. 500 first level courses or equivalent and a minimum of 21 M.B.A. credits which must include MBA 502 or 532, 503 or 533, 504 or 534, and 505, or permission of instructor.”
MBA 566 Security and Investment Analysis  
Change in pre-requisites “MBA 504 or 534.”

MBA 567 Advanced Portfolio Theory and Security An..  
Change in pre-requisites to “MBA 504 or 534 or equivalent.”

MBA 568 Advanced Financial Theory  
Change in pre-requisites to “MBA 504 or 534 or equivalent.”

MBA 569 Advanced International Financial Management  
Change in pre-requisites to “MBA 504 or 534 or equivalent.”

MBA 577 Compensation Administration  
Change in pre-requisites to “MBA 502 or 532 or permission of instructor.”

MBA 579 International Business Management  
Change in pre-requisites to “MBA 502 or 532 or permission of instructor.”

MBA 580 Management Systems Analysis and Design  
Change in pre-requisites to “MBA 550 or 535 or permission of instructor.”

MBA 583 Seminar in Operations and Supply Chain Management  
Change in pre-requisites to “MBA 560 or 536 or permission of instructor.”

New Courses

1) College of Arts and Sciences  
Computer Science and Statistics

CSF 512 Advanced Digital Forensics  

CSF 516 File System Analysis  
The structure and implementation of computing device file systems. Forensic analysis and reconstruction of digital evidence found in modern file systems.

CSF 534 Advanced Topics in Network and System Security  
Advanced topics in network security including intrusion detection, penetration testing, incident response, malware analysis, and risk management. Students will learn relevant skills and research emerging solutions to these problems.

CSF 538 Penetration Testing
Advanced techniques used in assessing the security of networks and identifying vulnerabilities. Network traffic analysis; session hijacking; social engineering; application exploitation; rootkits; network sniffers; developing threats.

2) College of Business
   MBA Program

**MBA 532 Organizational Behavior for Healthcare Professionals**
Examination of the theory, research and practice of organizational behavior in health care organizational settings. Focus on individual differences, communications, group dynamics, motivation and leadership in the workplace. Cannot be taken for MBA credit if student has already taken MBA 502.

**MBA 533 Financial Accounting for Healthcare Professionals**
Learn to prepare, interpret and use health care financial reports. Cannot be taken for MBA credit if student has already taken MBA 503.

**MBA 534 Financial Management for Healthcare Professionals**
Learn operational knowledge of healthcare financial management theory and concepts, and apply in a healthcare environment. Cannot be taken for MBA credit if student has already taken MBA 504.

**MBA 535 Information Resources for Healthcare Professionals**
Concepts of information technology and information systems in the context of a healthcare organizational environment. Cannot be taken for MBA credit if student has already taken MBA 550.

**MBA 536 Healthcare Operations and Supply Chain Management**
Learn the factors that impact the design and management of healthcare operations and supply chains. Cannot be taken for MBA credit if student has already taken MBA 560.

**MBA 537 Managerial Accounting for Healthcare Professionals**
Learn to identify, explain, and use managerial accounting information needed by an organization's management for decisions in a health care environment. Cannot be taken for MBA credit if student has already taken MBA 510.

3) College of Human Sciences and Services
   Communicative Disorders

**HSS 540X Preparing Competitive Grants Proposals**
This course instructs and assists graduate students to prepare competitive grant proposals especially for early career scientists. Successful completion satisfies federal requirements for participation in federal sponsored research.
Additional Curricular Matters

1) College of Arts and Sciences
   Computer Science and Statistics

New course code (CSF):

Notice of Change for a New Course Code (CSF) for Cyber Security and Digital Forensics courses
Date: 11/13/2012

A. PROGRAM INFORMATION
1. Name of institution
   University of Rhode Island
2. Name of department, division, school or college
   Department: Computer Science and Statistics
   College: Arts and Sciences
3. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.
   Initiation date: Fall 2013
   First degree date:
4. Intended location of the program
   Kingston
5. Summary description of proposed program (not to exceed 2 pages)
   This is a proposal to create a new course code (CSF) for Digital Forensics and Cyber Security courses within the Department of Computer Science and Statistics. We have verification from John Humphrey that the code is available (see attached email). The purpose of this separate course code is to allow students to distinguish Digital Forensics and Cyber Security courses from other Computer Science courses. It also serves as a mechanism to define requirements and electives allowed in the minors and graduate certificates in Digital

Notice of Change for Graduate Certificate in Cybersecurity

Summary Description of Changes to the Graduate Certificate in Cyber Security

a. New Course Code: We are establishing a new course code for Digital Forensics and Cyber Security courses within the Department of Computer Science and Statistics (in a separate Notice of Change form being submitted concurrently with this one). The establishment of this new course code, CSF (Cyber Security and Forensics) will require the renumbering of the courses required for this program.

b. Completion Requirements: Along with the new course code, we have also developed several new courses (concurrently proposed with this notice of change) that we would like to include in the graduate certificate program. We are modifying the requirements to allow these courses to be used. A student wishing to receive a Graduate Certificate in Cyber Security must complete the following courses:
CSF 430 – Introduction the Information Assurance *
CSF 432 – Network and Systems Security **
CSF 534 – Advanced Topics in Network and Systems Security **
One of the following other courses:
  o CSF 524 – Advanced Incident Response *
  o CSF 538 – Penetration Testing **
  o CSF 536 – Advanced Intrusion Detection and Defense *
* Existing course renumbered with new course code.
** New course proposed concurrently with this Notice of Change
The existing course requirements are:
  CSC 420 – Introduction to Information Assurance
  CSC 523 – Advanced Intrusion Detection and Defense
  CSC 524 – Advanced Incident Response
  One of the following other courses:
    o CSC 585 – Topics in Computer Forensics
    o CSC 586 – Topics in Network Forensics
    o CSC 519 – Computer Networks

c. Faculty: The Digital Forensics Graduate Certificate program has successfully staffed its courses through CCE special programs which is self-sustaining. We have spoken with John O’Leary, Director of CCE/Special Programs, and he is in full support of extending this model to include the proposed cyber security courses. This mechanism will allow the Cyber Security Graduate Certificate Program to be offered to students taking courses through CCE. However, in order to offer this certificate on campus for graduate students in the Computer Science MS or PhD programs, we will require additional resources. The current teaching assignments for these classes are expected to be:
  CSF 430 – Dr. DiPippo – in load
  CSF 432 – Dr. Henry – in load
  CSF 534 – Dr. Henry – in load
  CSF 524 – Dan Gortze (Adjunct) – per course
  CSF 538 – Kevin Bryan (Adjunct) – per course
  CSF 536 – Mike Khalfayan (Adjunct) – per course
Thus, in order for this program to be available to full-time graduate students, we will require additional faculty resources in the form of three in load courses and three per courses each year.

Change for Graduate Certificate in Digital Forensics
Notice of Change for Graduate Certificate In Digital Forensics
Date: 10/30/2012

A. PROGRAM INFORMATION
1. Name of institution
   University of Rhode Island

2. Name of department, division, school or college
   Department: Computer Science and Statistics
   College: Arts and Science

3. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.
Initiation date: Fall 2014 or when fully approved
First degree date: May 2015

4. Intended location of the program: URI Kingston

5. Summary description of proposed program
We are requesting two changes to the current Digital Forensics Graduate Certificate program:
 New course codes reflecting the change in digital forensics courses from a Computer Science (CSC) course code, to a Computer Forensics and Security (CSF) course code.
 Changes in the curriculum that incorporate the new courses being proposed (File System Forensics, Incident Response, Advanced Topics in Digital Forensics, Digital Forensics Analysis)

A Curriculum Sheet is attached on the next page. This degree program requires as teaching resources two per-course or in-load instructors for CSF 410 and CSF 414. Note that these courses also appear in the Digital Forensics Minor, so the resource requirement is shared by these two programs, and is not an increase in the resources currently allocated (the digital forensics program has been allocated two per-course instructors for many years now). The 500-level courses in this program will be offered through CCE Special Programs that will pay the instructors using the course revenue.

6. Signature of the President
David M. Dooley

Digital Forensics Graduate Curriculum Sheet

15 credits minimum required
Required Courses
 (4 credits) CSF 410 Digital Forensics
 (4 credits) CSF 512 Advanced Topics In Digital Forensics
 (4 credits) CSF 516 File System Analysis
One course from:
 (4 credits) CSF 414 Digital Forensics Analysis
 (4 credits) CSF 524 Advanced Incident Response

2) College of Business
MBA Program

Change in Program Requirements for MBA:

FROM: Deborah Rosen Associate Dean
RE: MBA Catalog Changes
DATE: December 5, 2013
The College of Business Administration has approved the following change (in red) to the catalog description for the Master of Business Administration:
“Program requirements: the M.B.A. program curriculum has been updated to maintain a program that is current and relevant in the workplace.
The part-time M.B.A. program requires a minimum of 30 credits and a maximum of 45 credits.”
This change reduces the minimum number of credits from 36 to 30 to take into account the current backgrounds of our M.B.A. students. We have far more people entering our program with more courses in undergraduate statistics, economics and business thus impacting the underlying requirements of our program. This change is in keeping with the Graduate School’s minimum requirement.
3) College of Human Sciences and Services
Kinesiology

Proposal for the MATCP in Kinesiology (PHETE):

Notice of Change for Kinesiology and School of Education
Date: 12/9/13

PROGRAM INFORMATION

1. Name of institution
   University of Rhode Island

2. Name of department, division, school or college
   Department: Education
   College: Human Science and Services

3. Intended initiation date of program change. Include anticipated date for granting first
degrees or certificates, if appropriate.
   Initiation date: Fall 2013
   First degree date: Spring 2014

4. Intended location of the program
   Kingston

5. Summary description of proposed program (not to exceed 2 pages)

This proposal seeks to reactivate the Teacher Certification Program (MATCP) for Kinesiology
Physical Education Health Education Teacher Education (PHETE) and have it listed with other
approved MATCP and TCP programs in the School of Education.
The MATCP in PHETE was deactivated in 2008 because the enrollment numbers for this
program were not high enough to sustain multiple sections of kinesiology courses running at
the time when the undergraduate certificate track in kinesiology was large enough to fill a
class offering. The general interest in this program declined at the post-baccalaureate level
because kinesiology majors were seeking careers elsewhere.
Graduates’ interest has risen recently, particularly for kinesiology majors in the areas of
exercise science and health studies wanting to teach in Pk-12 schools settings. This interest is
due, in part, to the rising concern with childhood obesity. Schools are now focusing on the
importance of health and physical education during the school day, as well as in before- and
after-school health/fitness programming for children. This program is for graduate students
who wish to become certified/credentialed as physical education teachers. The program is
designed for students who hold a bachelor’s degree in physical education, kinesiology, or a
related field. Students who do not have a physical education background will need to take
additional prerequisite undergraduate courses and should consult with a PHETE advisor.
Kinesiology PHETE faculty anticipate approximately 8-10 applicants a year. There is currently
room in the required undergraduate certificate track courses, the School of Education
graduate courses, and the Kinesiology graduate courses to accommodate the number of
potential MATCP in PHETE students.
Applicants will be recruited through the School of Education and the Kinesiology
Department. This teacher certification program will be managed through the Graduate
School and will not be for undergraduate credit. Students will apply through the URI
Graduate School. Students will apply to the PHETE-TCP (non-degree status) administered
through the Graduate School, and must submit a candidate’s statement, official transcripts
of all previous course work, and two letters of recommendation. Details related to the admission process can be found on the School of Education and Kinesiology department websites. The NCATE statement that appears on undergraduate program completer’s transcripts will also appear on the MATCP completer’s transcripts.

VI. Old Business

A. Update on the proposal from Pharmacy related to their request to share credits between the PharmD and Master’s Programs.

B. Continued discussion of policies related to master’s thesis defenses including the requirements surrounding the signatures required on the defense set-up form and the deadline by which thesis proposals need to be submitted to the Graduate School.

VII. New Business

VIII. Adjournment