

**Agenda**  
**Board of Governors for Higher Education**  
Tunxis Community College  
Farmington, CT  
April 28, 2010  
1:30 p.m.

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**Call to Order**

**Approval of the March 17, 2010 Board Meeting Minutes**

**Public Participation**

**Chairman's Report**

**Commissioner's Report**

- College of Technology Presentation

**Commissioner's Consent Calendar**

Finance and Administration

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2. [Tuition and Fee Schedules for Connecticut Public Colleges and Universities for the 2010-11 Academic Year](#) 5
3. [2010 Annual Report: Strategic Plan to Ensure Racial and Ethnic Diversity in Connecticut Higher Education](#) to be distributed

Academic Affairs

- New Degree Programs

Licensure

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2. [Master of Science in Chemistry, University of Rhode Island](#) 13
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  - Graduate Certificate in Power Systems Management
  - Master of Business Administration
  - Master of Science in Electrical and Computer Engineering
  - Master of Science in Manufacturing Engineering
  - Master of Science in Materials Process Engineering
  - Master of Science in Mechanical Engineering
  - Master of Science in Systems Engineering

- Program Accreditations

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**Academic Affairs Action**

- New Degree Programs

Licensure and Accreditation

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**Other Business**

**Report of the Standing Advisory Committee**

**Adjournment**

## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Item: Request for State Funds to Support an Endowed Chair in Special Education at Southern Connecticut State University

### Background Information

Since 1985, the Board of Governors has administered the Endowed Chair Investment Fund. Presently the fund supports eight Endowed Chairs: four at the University of Connecticut and its Health Center, two at Central Connecticut State University and one each at Eastern and Western Connecticut State Universities. Contingent upon available funding, the state provides a 1:1 match for private contributions of \$500,000 to \$1 million to support each endowed chair. In addition to the eight existing chairs, there are three chairs with pending requests that have not been funded. They are chairs in Early Childhood and Biology at Eastern Connecticut State University and a chair in Mechanistic Toxicology at the University of Connecticut.

The Board of Trustees of the Connecticut State University seeks approval from the Board of Governors to establish an Endowed Chair in Special Education as it relates to Autism Spectrum disorders and other developmental disabilities at Southern Connecticut State University. It confirms that Southern has raised \$1 million from private sources for the establishment of the Dorothy W. Goodwin Endowed Chair and is thus eligible for a matching state grant. The new chair will be housed at Southern's Center for Excellence on Autism Spectrum Disorders.

Pending the Board of Governors' approval of this application, the Department will include a request for state matching funds for this endowed chair in its FY 2011-13 operating budget. The one-time matching funds are held in an interest bearing account in the General Fund for the drawdown of interest against annual activity. Non-state funds, in this case, will be held by the SCSU Foundation.

### Commissioner's Recommendation

It is recommended that the Board of Governors approve the establishment of the Dorothy W. Goodwin Endowed Chair in Special Education at Southern Connecticut State University and request \$1 million in state matching funds as part of its FY 2011-13 operating budget request.

4/28/10



**STAFF REPORT: COMMISSIONER’S CONSENT CALENDAR**

Item: Tuition and Fee Schedules for Connecticut Public Colleges and Universities for the 2010-11 Academic Year

The Board of Governors annually reviews and makes recommendations on tuition and fees for Connecticut public higher education. This review is guided by the Board's tuition policy, which groups student tuition and fees into two categories. Tier I fees consist of tuition and mandatory fee charges such as general university fees, educational extension fees, housing fees, and food service fees which, by their nature, have a significant impact on the cost to students. Each of these fees is reviewed on an individual basis. Tier II fees consist of all non-mandatory fee charges, fees used to support student-managed activities, user charges, and other fees which generally are not increased each year in response to inflationary pressures. For these fees, each of the constituent units submits a statement describing the basis upon which it sets and approves these fees and listing the currently approved rates.

Tuition and fee rates for 2010-11 have been approved by each constituent unit board. As summarized below, tuition and mandatory fee increases for commuter students range from 1.7 percent for returning bachelor’s degree students at Charter Oak State College to 6.4 percent at the Connecticut Community College System. The increase for four-year college undergraduates residing on campus is 6.0 percent at the University of Connecticut and 5.6 percent at the Connecticut State University System, with room and board charges increasing from a low of 3.9 percent for housing at Western Connecticut State University to a high of 6.0 percent for food service at the Southern Connecticut State University.

Detailed exhibits of Tier I and II tuition and fees for all constituent units are available on-line at [www.ctdhe.org](http://www.ctdhe.org). The attached Table I portrays a five-year history of the total cost of tuition and required fees at Connecticut public colleges for in-state, full-time undergraduate students.

<b>Annual Cost of Tuition and Required Fees Full-Time, Undergraduate, In-State Students</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Annual Increase</b>	
				<b>\$</b>	<b>%</b>
<b>University of Connecticut</b>					
Undergraduate Commuter	\$9,338	\$9,886	\$10,416	\$530	5.4%
Undergraduate Resident	18,842	20,006	21,198	1,192	6.0%
<b>Connecticut State University System</b>					
Undergraduate Commuter	7,179	7,567	8,043	476	6.3%
Undergraduate Resident	16,103	17,048	17,997	949	5.6%
<b>Connecticut Community College System</b>					
Undergraduate Commuter	2,984	3,200	3,406	206	6.4%
<b>Charter Oak State College</b>					
Associate’s Degree Student	980	1,335	1,361	26	1.9%
Bachelor’s Degree Student (Yr 1)	1,090	1,130	1,156	26	2.3%
Bachelor’s Degree (after Yr 1)	675	695	707	12	1.7%

Nationally, public sector tuition increases averaged 6.5 percent at four-year institutions and 7.3 percent at two-year institutions for 2010. Those increases were essentially the same as 2009 with many public institutions across the nation relying on stimulus funding to keep increases down. Increases at Connecticut schools have been lower than the national average for the last three years.

From 2006 to 2011, tuition and fees for in-state undergraduates have increased 36 percent at the Connecticut State University System, 34 percent at the Connecticut Community College System, and 32 percent at the University of Connecticut. With the exception of Charter Oak State College, all of the planned 2011 increases are above the Higher Education Price Index (HEPI) rate for 2009 of 2.3 percent and the corresponding CPI rate of 1.4 percent. However, Board of Trustees' approved tuition and fee increases are actually lower than regional and national trends.

#### Commissioner's Recommendation

It is recommended that the Board of Governors endorse the 2010-11 tuition and fee adjustments as presented.

4/28/10

**Table I**

**History of the Annual Cost of Tuition and Required Fees  
for a Full-Time, Undergraduate, In-State Student  
at Connecticut Public Colleges and Universities**

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Annual Increase</u>					<u>06-11</u>
							<u>06-07</u>	<u>07-08</u>	<u>08-09</u>	<u>09-10</u>	<u>10-11</u>	
<b>UNIVERSITY OF CONNECTICUT</b>												
Undergraduate Commuter	\$7,912	\$8,362	\$8,852	\$9,338	\$9,886	\$10,416	5.7%	5.9%	5.5%	5.9%	5.4%	31.6%
Undergraduate Resident	15,616	16,628	17,702	18,842	20,006	21,198	6.5%	6.5%	6.4%	6.2%	6.0%	35.7%
<b>CONNECTICUT STATE UNIVERSITY</b>												
Undergraduate Commuter	5,936	6,284	6,736	7,179	7,567	8,043	5.9%	7.2%	6.6%	5.4%	6.3%	35.5%
Undergraduate Resident	13,426	14,278	15,189	16,103	17,048	17,997	6.3%	6.4%	6.0%	5.9%	5.6%	34.0%
<b>COMMUNITY-TECHNICAL COLLEGE SYSTEM</b>												
	2,536	2,672	2,828	2,984	3,200	3,406	5.4%	5.8%	5.5%	7.2%	6.4%	34.3%
<b>CHARTER OAK STATE COLLEGE</b>												
Associate's Degree Student (Yr 1)	890	920	955	980	1,335	1,361	3.4%	3.8%	2.6%	36.2%	1.9%	52.9%
Bachelor's Degree Student (Yr 1)	1,015	1,045	1,070	1,090	1,130	1,156	3.0%	2.4%	1.9%	3.7%	2.3%	13.9%
Bachelor's Degree (After Yr 1)	605	635	655	675	695	707	5.0%	3.1%	3.1%	3.0%	1.7%	16.9%



## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: The National Graduate School of Quality Management  
Falmouth, Massachusetts

Item: Relicensure of a Master of Science degree program in Quality Systems  
Management, to be offered in Farmington, Connecticut

Date: April 28, 2010

### Executive Summary

The National Graduate School of Quality Management [NGS] has applied to the Board of Governors for relicensure of its a Master of Science degree program in Quality Systems Management at the United Technologies Training Center (UTC) in Farmington, CT. This program was previously licensed without stipulation.

NGS is a private, not-for-profit corporation chartered in 1993 to confer degrees in the Commonwealth of Massachusetts. Its administrative center is located in Falmouth, MA and it has been accredited by the New England Association of Schools and Colleges [NEASC] since 1998. The Master of Science in Quality Systems Management was the School's first program.

The Advisory Committee on Accreditation, at its meeting on February 18, 2010, reviewed the program and found it to be in compliance with Board of Governors approval standards. The Committee voted to recommend approval to the Board of Governors. The vote to recommend approval was all in favor.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education relicense a program in Quality Systems Management, leading to the Master of Science (M.S.) degree, to be offered by The National Graduate School of Quality Management, until December 31, 2010.

## Description

### Purpose and Objectives

The National Graduate School of Quality Management offers project-based degree programs to adult professionals. These projects revolve around creating tangible, measurable improvements in organizational performance. NGS states that its graduates are trained in behavioral, analytic, customer service and leadership skills. The school's catalog explains that teamwork, collaboration and continuous improvement are emphasized throughout their curriculum.

### Administration

The school's main administrative offices and services are in Falmouth, Massachusetts. The Director of Academic Affairs & Faculty Assignments provides general oversight of the program. Governance at the National Graduate School is accomplished through collaborative efforts in which their Board of Governors provides strategic oversight and the Administration oversees implementation through the Senior Leadership Team.

### Curriculum

The M.S. Degree Program in Quality Systems Management consists of 16 courses (49 credits) listed in the Attachment and taken sequentially over 16 months. Each course runs for 4 weeks and meets every other week for 12 hours (on Friday evening and all day Saturday). These 24 classroom contact hours are supplemented by 20 hours of organized team study and research.

The curriculum is designed around a 12 course core to which the sponsoring institution can add courses from a list of "electives" which become a mandatory part of the student's program. At UTC, four additional "elective" courses were chosen.

Central to the program is the Master's Business Project (MBP). Working in teams of varying sizes, students complete a MBP related to their work under the supervision of a designated faculty advisor. The MBP replaces the Master's thesis and students have to defend their project in a formal presentation.

### Admission and Enrollment

Applicants must possess a Bachelors degree from an accredited institution, demonstrate substantive work experience, provide two favorable letters of recommendation, and submit a personal statement regarding the applicant's commitment to achieving tangible results. Full acceptance is granted to candidates who have a 3.0 undergraduate GPA and conditional acceptance is granted when students do not meet the requirements of full acceptance but have every indication of potential success. Once admitted to the program, satisfactory academic standing is a 3.0 GPA.

Students are admitted in cohorts and typically have a corporate or government sponsor (e.g., United Technologies Corporation). The School has admitted students outside of UTC at the Farmington location. The school projected an enrollment in Connecticut of 50 to 100 students per year for the first five years. At the time of initial licensure, the School

had projected enrollments at the Coast Guard Academy. However, enrollment at the Coast Guard did not occur.

Actual enrollments in Farmington, CT are as follows:

10/24/08	25
10/16/09	9
Graduation Dates:	
2/23/08	11
10/10/08	18
6/15/09	13

### Similar Programs

In Connecticut there are no specialized programs offered in Quality Systems Management at any level.

## Resource Support

### Faculty

The faculty for the National Graduate School consists of reflective practitioners, academicians, course developers and notable researchers. Of the 32 instructors provided by the institution, 21 faculty members hold doctoral degrees. There are two full-time faculty members/administrators based in Connecticut. One faculty member possesses a Juris Doctorate, a MBA and Masters in Quality Systems Management with extensive corporate training and management experience. The other faculty member holds a doctorate degree in Educational Administration and a Masters with a specialization in Adult Education.

### Library

Students who are enrolled in the program have on-line access to NGS's library in Falmouth, MA. The library maintains 16 different business-related on-line data bases with full text capability. It also has approximately 3,500 volumes selected specifically to support the program and which are available to the students through remote 24-hour delivery. The school has a library representative who provides answers to on-line reference questions, however the library does not have an MLS qualified librarian.

NGS will establish a portable on-site reference library of at least 180 volumes to support the classes being offered in Connecticut. They will be stored on carts in the Audio-visual room and rolled out by each instructor for every class. The instructor will be responsible for checking texts in and out.

### Facilities and Equipment

Each cohort will be assigned a classroom at the United Technologies Training Center in Farmington. An LCD projector, laptop, and additional instructional aids are provided as required by the instructor.

## ATTACHMENT

Institution: National Graduate School of Quality Management  
Program: M.S. in Quality Systems Management  
(Curricular Design for the United Technologies Corporation site)

### Semester One

QSM 701 Principles of Action Learning (1 cr)  
QSM 770 Performance Based Management (Systems to Achieve Competitive Excellence) (3 cr)  
QSM 781 A Systems Approach To Strategic Planning (3cr)  
USM 748 Project Management With Passport (3 cr)  
USM 750 Master's Business Project Phase One (Define) (3 cr)

### Semester Two

QSM 840A Action Research I (1 cr) #  
USM 844 Assessing Organizational Performance with ACE (3 cr)  
QSM 743 Learning to See, Improving Throughput (3 cr)  
USM 641 DIVE Process Definition and Certification (3 cr) \*  
USM 639 Supply Chain Productivity and Management (3 cr) \*  
USM 762 Master's Business Project Phase Two (Investigate) (3 cr)

### Semester Three

QSM 840B Action Research II (1 cr)  
USM 642 Root Cause and Mistake Proofing Solutions (3 cr) \*  
USM 643 Applied Statistical Analysis for Decision Making (3 cr) \*  
USM 766 Master's Business Project Phase Three (Verify) (3 cr)

### Semester Four

QSM 850C Action Research III (1 cr)  
QSM 758 Benchmarking (3 cr)  
USM 775 Financial Systems Management (3 cr)  
USM 767 Master's Business Project Phase Four (Ensure) (3 cr)

# This course extends through the duration of the program and is divided by semester into 3 single credit courses.

\* UTC requested course

## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: University of Rhode Island  
Item: Re-licensure of a Chemistry program, leading to a Master of Science (M.S.) degree, offered at Pfizer Research Center in Groton, Connecticut  
Date: April 28, 2010

### Executive Summary

In 2001 the Board of Governors licensed a master's degree program in Chemistry at the University of Rhode Island so that it could be offered in Connecticut at the Pfizer Research Center in Groton. This program was re-licensed in 2007 for a period of three years, until June 2010. The University is, therefore, seeking re-licensure of this program.

The Advisory Committee on Accreditation, at its meeting on March 18, 2010, reviewed this proposal and found it to be in compliance with Board of Governors approval standards. The motion to recommend approval to the Board of Governors passed unanimously.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education relicense a Master of Science (M.S.) degree in Chemistry, to be offered by the University of Rhode Island at the Pfizer Research Center in Groton, for a period of time 3 years until April 30, 2013.

## Background

The University of Rhode Island offers a master's degree program on their Kingston campus and this program is available to Pfizer employees at their worksite in Connecticut. This program was first licensed by the Board of Governors in 2001 and has been relicensed on a 3 year cycle.

All courses are taught by appropriately qualified University of Rhode Island faculty members. Students have opportunities to interact with other faculty and graduate students on the Kingston campus and also have access to additional research facilities on the main University campus. The curriculum for this master's degree program includes a culminating research component.

The University's Graduate School oversees the academic aspects of the program and their Special Programs office at the College of Continuing Education administers the delivery of the program at the off-campus location. In addition, Pfizer Research University acts a liaison between students and the University to ensure that students are properly registered and have appropriate course materials.

### Update since Licensure in 2007

There have been no changes in the curriculum for this program since the last relicensure. The University has offered 2 courses each year at Pfizer since the fall semester in 1994. There are currently 6 students enrolled in the program. The following chart indicates the number of graduating students each year since 2005:

<b>Year</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Number of Students Graduating</b>	1	10	4	5	2

## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: Worcester Polytechnic Institute, Worcester, MA

Item: Licensure of programs in Business Administration, Electrical and Computer Engineering, Manufacturing Engineering, Materials Process Engineering, Mechanical Engineering, and Systems Engineering, each leading to a Master's degree. Licensure of a program in Power Systems Engineering, leading to a graduate certificate

Date: April 28, 2010

### Executive Summary

Worcester Polytechnic Institute (WPI) partners with corporations in a range of industries offering programs to meet their needs and their employees. In Connecticut, WPI partners with the following corporations:

- Northeast Utilities and United Illuminating offering the Graduate Certificate in Power Systems Management and the Electrical and Computer Engineering Master of Science degree
- United Technologies offering the MBA, the Master of Science in Manufacturing Engineering, and the Master of Science in Materials Process Engineering
- Sikorsky Aircraft and Electric Boat offering the Master of Science in Mechanical Engineering
- Hamilton Sundstrand and Electric Boat offering the Master of Science in Interdisciplinary Studies in Systems Engineering

All of the proposed programs are currently offered at the main campus in Worcester, MA. WPI is regionally accredited by the New England Association of Schools and Colleges (NEASC).

The Advisory Committee on Accreditation, at its meeting on March 18, 2010, reviewed the programs and found them to be in compliance with Board of Governors approval standards. The Committee voted to recommend approval to the Board of Governors with a stipulation that within Connecticut, the Master's level programs conform to State regulations by requiring either a comprehensive examination, a thesis based on independent research, or completing an appropriate special project. The vote to recommend approval was all in favor.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education license programs in Business Administration, Electrical and Computer Engineering, Manufacturing Engineering, Materials Process Engineering, Mechanical Engineering, and Systems Engineering, each leading to a Master's degree with the stipulation that within

Connecticut, the Master's level programs conform to State regulations by requiring either a comprehensive examination, a thesis based on independent research, or completing an appropriate special project. It is also recommended to license a program in Power Systems Engineering, leading to a graduate certificate, to be offered by Worcester Polytechnic Institute, for a period of three years, until April 30, 2013.

## Description

### Purpose and Objectives

According to WPI, students in these programs may increase their individual career potentials while enhancing the competitive position of their respective employees. The programs support the mission of the institution.

### Administration

Overall direction and supervision for programs that are subject to this license application is performed by the Provost and the Associate Provost and Dean of Corporate Education.

Each program has assigned faculty directors from the representative academic departments.

### Curriculum

#### *Business Administration*

The program requires 49-credit hours including a foundation in fundamental business disciplines, a core that integrates these principles, and electives that further the student's goals in the management of technology. Every course in the MBA program is taught from a technological perspective.

MBA students can concentrate in the following areas:

- Entrepreneurship
- Information Security Management
- Information Technology
- Operations Management
- Process Design
- Supply Chain Management
- Technological Innovation
- Technology Marketing

All MBA students undertake a Graduate Qualifying Project (GQP), where students analyze real problems for real organizations, and come up with practical solutions. All MBA students are able to undertake corporate internships, and to take advantage of WPI's Career Development Center.

#### *Electrical and Computer Engineering*

Students may take either the non-thesis option, which requires 30 graduate credits in course work, independent study, or directed research, or the thesis option, with a total of 30 graduate credits including a 9-credit thesis. In either case, at least 21 of the 30 credits must be graduate level activity (designated 500 level or above) in the field of electrical and computer engineering taken at WPI. The remaining courses may be either at the 400 (maximum of two) or the 500 level in computer science, physics, engineering or mathematics. All full-time students are required

to attend and pass the two graduate seminar courses. The complete program must be approved by the student's advisor and the Graduate Program Committee.

### *Manufacturing Engineering*

The M.S. Degree in MFE requires 30 credit hours of graduate studies. The 30 credits consist of a minimum of 12 credit hours of coursework, plus 18 credit hours of any combination of coursework, independent study, directed research or thesis that complies with the following constraints: if there is a thesis, it must at least 6 and no more than 12 credits; there can be no more than 9 credits of directed research; and the total number of credits from the Management Department cannot exceed 14.

The minimum of 12 credit hours of coursework must include a minimum of two credits each in at least four of the eight core areas. The coursework is selected in consultation with an advisor from the MFE faculty. All full-time students are required to participate in the non-credit seminar course MFE 500.

The eight core areas are listed below.

- Manufacturing Systems
- Manufacturing Processes
- Control Systems
- Design
- Materials
- Financial Processes
- Statistics and Quality Assurance
- Health Systems Engineering

### *Materials Process Engineering*

- Materials Science & Engineering Courses (9 credits)
- Manufacturing Engineering Courses (6 credits)
- Management/Industrial Engineering Courses (9 credits)
- Electives (3 credits)
- MPE Project (3 credits)

Each student must complete the MPE project. This maybe a team or independent project sponsored by industry. The project must address several issues in business analysis, operations, process design, and quality, as well as the processing/structure/property relationships in the process being studied. The culmination of this project will be a business plan and/or a research proposal or new product. The final report is presented in a seminar or class in materials science, manufacturing engineering, or management.

### *Mechanical Engineering*

The curriculum is divided into five distinct areas of study:

- Fluids Engineering
- Dynamics and Controls

- Structures and Materials
- Design and Manufacturing
- Biomechanical Engineering

Both the thesis and non-thesis options require the completion of 30 graduate credit hours. Students in the thesis option must complete 12 credits of thesis research (ME 599), whereas students in the non-thesis option may complete up to 9 credits of directed research (ME 598). The result of the research credits (ME 599) in the thesis option must be a completed master's thesis. The number of directed research credits (ME 598) completed in the non-thesis option can range from 0 to 9.

In the thesis option, the distribution of credits is as follows:

- 9 graduate credits in mechanical engineering
- 12 credits of thesis research (ME 599)
- 3 graduate credits in mathematics
- 6 graduate credits of electives within or outside of mechanical engineering

In the non-thesis option, the distribution of credits is as follows:

- 18 graduate credits in mechanical engineering (includes a maximum of 9 credits of directed research—ME 598)
- 3 graduate credits in mathematics
- 9 graduate credits of electives within or outside of mechanical engineering

### *Systems Engineering*

The Master of Science in Systems Engineering requires 30 course credits. As an interdisciplinary program, no more than half of the required program credits can be earned from a single department.

- SYS 501 Concepts of Systems Engineering (required)
- SYS 585 Systems Engineering Capstone Experience (required, min 3 credits)
  - The capstone experience requirement may be satisfied by an instructor-led systems engineering project, an individual directed research project, or a formal MS thesis. The capstone experience must be approved in advance by the student's academic advisor and must not exceed a total of 9 credits.
  - Students may not transfer credit to satisfy the required capstone project.
- At least three of the following:
  - SYS 510 Systems Architecture
  - SYS 511 Systems Integration and Test
  - MIS 576 Project Management
  - OIE 541 Operations Risk Management
- The balance of the 30 credits may be chosen from the 500/600 level courses in the WPI graduate catalog, and must be approved by faculty advisors.

*Power Systems Engineering, leading to a graduate certificate*

The Graduate Certificate in Power Systems Management includes at least 17 credits of graduate coursework. In addition, the following conditions must be met:

- The program of study must include ECE599A Introduction to Power Systems
- The program of study must include at least two of the following Power Systems Engineering courses:
  - ECE559B Fundamentals of Power Quality
  - ECE559C Transients in Power Systems
  - ECE559E Electromechanical Energy Conversion
  - ECE559F Fundamentals of Power Distribution
  - ECE559G Power Systems Operations and Planning
  - ECE523 Power Electronics
- The program of study must contain at least 6 credits of coursework from the Department of Management

Admissions and Enrollment

*Graduate Certificate in Power Systems Management:* over 60 individuals have been identified at Northeast Utilities and United Illuminating. WPI projects 25 part-time new enrollments each year.

*MBA:* WPI projects 25 part-time students in 2010 with an increase to 45 by year three of the initial program licensure.

*Electrical and Computer Engineering:* The projection for this program includes 25 part-time students in year one and two, and 50 part-time students in year three.

*Manufacturing Engineering:* The University is projecting 25 part-time students per year.

*Materials Process Engineering:* WPI projects 12 part-time students to enroll in 2010, increasing to 24 part-time students per year thereafter.

*Mechanical Engineering:* WPI is projecting 15 part-time students in the first year and increasing to a goal of 30 part-time students per year.

*Systems Engineering:* The projections for this program include 40 part-time students in year one, and increases to 80 part-time students by the third year of licensure.

Comments from Other Institutions in Connecticut

The University of Hartford and the University of Connecticut have expressed concern regarding need for these programs in Connecticut. Both institutions contend that these programs are duplicates of what is already offered in the State and that there is no unmet need. The University of Connecticut further states that employees at these corporations are currently enrolled in similar programs at their main campus, regional campuses, and at the industry sites.

Resource Support

Faculty

WPI utilizes a number of existing full- and part-time faculty members to teach in the proposed programs.

### Library and Learning Resources

WPI's library resources are sufficient to support the proposed programs. All periodicals and resources from WPI's Library will be available to any student enrolled in a program offered by WPI.

### Facilities and Equipment

For operations in that state of Connecticut, WPI partners with organizations to deliver graduate programs to their employee base within their own facility. In most cases, such facilities are specifically designed for instruction or presentation and thus are fully outfitted with the equipment needed for instruction. In cases where equipment is inadequate, WPI provides the requisite equipment (e.g., projectors, computers, white boards, flip-charts, etc.).



## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: University of Bridgeport

Item: Accreditation of a program in Global Development and Peace (GDP), leading to the Master of Arts (M.A.) degree to be offered online and on campus

Date: April 28, 2010

### Executive Summary

The Board of Governors licensed a program in Global Development and Peace at the University of Bridgeport, leading to a Masters of Arts (M.A.) degree in November 2007 for a three year period until November 2010. Students were accepted into the program in August 2008. The University is therefore seeking accreditation of this master's degree program to allow these students to graduate with a degree in Global Development and Peace.

The Advisory Committee on Accreditation, at its meeting on March 18, 2010, reviewed the proposal and found it to be in compliance with Board of Governors approval standards. The motion to recommend approval to the Board of Governors passed unanimously.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education accredit a Master's of Arts (M.A.) degree in Global Development and Peace, to be offered online and on campus, by the University of Bridgeport for a period of time concurrent with institutional accreditation.

## Description

### Purpose and Objectives

The Master of Arts in Global Development and Peace is designed primarily for individuals who intend to pursue careers in international public service in government agencies, non-governmental organizations, and intergovernmental organizations. Graduates of the program may also pursue employment in the private sector, especially with banks, insurance companies, corporations, and management firms that have investments, branch offices, partners, or clients in developing countries.

### Administration

The Dean of the International College has served as the interim chair of the Department. A full-time chair will be appointed, who will report to the Dean of the International College.

### Curriculum

The program is a 36 credit graduate course of study offering three tracks: Culture Peace and Development, International Political Economy and Development and Global Management.

The International College has significant experience in distance learning and proposes to offer an online format, in addition to the existing onsite option. The University has a well established track record of offering online degree programs.

### Enrollment

The University anticipated 10 full-time and part-time students in August 2008, exceeding this projection with 15 students enrolled in the first year. The University projected 25 students enrolled by year three. As of spring 2010, there are 33 students enrolled of which six will graduate this spring.

## Resource Support

### Faculty

The University lists 6 full-time and 3 part-time faculty members that teach in the program. All, but two faculty members hold doctoral degrees. In January 2011, an additional faculty member will be hired to teach in the program and supervise overseas internship placements.

### Library and Learning Resources

The Library has continued with acquisitions for the program as indicated at the time of licensure. In addition, the Library has developed a specific search engine etc. for students enrolled in the Global Development and Peace program. An online Journal *The Journal of Global Development and Peace* was started in spring 2009 and a second issue is being prepared.

### Facilities and Equipment

No new facilities were needed for the program.

## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: University of Connecticut  
Item: Accreditation of a program in Public Health with a concentration in Occupational and Environmental Health Sciences, leading to a Doctor of Philosophy (Ph.D.) degree  
Date: April 28, 2010

### Executive Summary

The Board of Governors licensed a doctoral program in Public Health with a concentration in Occupational and Environmental Health Sciences at the University of Connecticut in June of 2007 for a three year period, until June 2010. The University is, therefore, currently seeking accreditation of this program.

The Advisory Committee on Accreditation, at its meeting on March 18, 2010, reviewed this proposal and found it to be in compliance with Board of Governors approval standards. The motion to recommend approval to the Board of Governors passed with one abstention.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education accredit a program in Public Health with a concentration in Occupational and Environmental Health Sciences, leading to a Doctor of Philosophy (Ph.D.) degree, for a period of time concurrent with institutional accreditation.

## Description

The University of Connecticut offers two other Public Health degrees through the Department of Community Medicine and Health Care at the School of Medicine:

- Ph.D. in Public Health, concentration in Social and Behavioral Health Sciences (accredited in 2009)
- Masters of Public Health (accredited in 1984)

The doctoral program in Public Health with a concentration in Occupational and Environmental Health Sciences is designed to prepare future public health leaders with the academic and research skills needed to protect and enhance health in human populations. This program provides students with comprehensive and specialized instruction in a broad range of occupational and environmental exposures—including physical and chemical agents, biological exposures, ergonomic exposures, accident/safety risks and psychosocial factors.

### Update since Licensure in 2007

The program enrolled its first student in the fall of 2008 and as of the fall of 2009 had three full-time students. In addition two students have been accepted but deferred their enrollment until fall 2010. The first student is expected to complete the program in the spring of 2011. This enrollment profile is in line with enrollment goals for the program at the time of licensure which called for a minimum of one and a maximum of five doctoral students entering each academic year.

The curriculum for the program has not been modified since licensure; however, the University reports two other changes:

1. The licensure application called for the hiring of a full-time faculty member in occupational or environmental epidemiology. A search was opened but withdrawn when the University announced a state-wide hiring freeze. An existing qualified faculty member is meeting the epidemiology requirements of the program currently, but the position will be resubmitted as soon as the University budget allows and the hiring freeze is lifted.
2. At licensure this program was housed in the Center for Public Health and Health Policy. In order to consolidate the Public Health programs at the University and to facilitate the accreditation of the program by the Council on Education for Public Health (CEPH), the administrative home of the program was moved to the Department of Community Medicine and Health Care. Dr. Thomas Babor chairs this department and has responsibility for the administration of the program. However the program continues to have an interdisciplinary and cross-campus focus with program chairs and faculty from both the School of Medicine and the Storrs campus.

## STAFF REPORT: COMMISSIONER'S CONSENT CALENDAR

Institution: Quinnipiac University

Item: Progress Report

Date: April 28, 2010

The Board of Governors for Higher Education accredited a program in Biomedical Marketing, leading to a Bachelor of Science (B.S.) degree offered at Quinnipiac University on March 18, 2009 for a period of time concurrent with institutional accreditation. At the time of accreditation, the Board of Governors required the University to submit a progress report by March 31, 2010, on the specificity and appropriateness of the curriculum.

Quinnipiac University has submitted a progress report indicating the following information:

- The Biomedical Marketing degree is a joint curriculum that combines marketing concepts with a focus on biology, chemistry and anatomy. This program provides a more in depth knowledge base of the sciences.
- The program consists of 27 credit hours in marketing beyond the required business core, and an additional 21 credits of science:

BMS 117 The Human Organism (with lab)  
BMS 162 Health and Human Disease  
BMS 276 Drug Development – new course  
BMS 203 Introduction of Medical Terminology – new course  
CHE 101 Fundamentals of Chemistry (with lab)  
CHE 102 Fundamentals of Chemistry II (with lab)

- As a result of the review of curriculum over the past year, an additional new course MK 495 Biomedical Marketing Internship, requires students to complete a semester long internship with a biomedical marketing company.
- The program enrollment last year was 16 students and has increased this year to 24 students. The increase in enrollment indicates there is student interest in the unique interdisciplinary curriculum that is offered.



## STAFF REPORT: ACADEMIC AFFAIRS AND PLANNING

Institution: University of New Haven

Item: Licensure and Accreditation of a program in Engineering and Operations Management, leading to the Master of Science in Engineering and Operations Management (M.S.E.O.M.) degree

Date: April 28, 2010

### Executive Summary

The proposed Master of Science in Engineering and Operations Management (MSEOM) program is designed to educate engineers and technical professionals who aspire to hold engineering, project management, and operations management positions in both the manufacturing and service sectors. According to the University, these individuals require advanced education in the use of scarce resources, managing workforce teams, establishing effective supply chains, assuring high quality products and services, establishing customer relationships, and planning successful organizational operations. In addition, certain topics are required that are usually part of an MBA program. For this program, basic finance, marketing, and organizational development topics that are needed to make good operational decisions are thus included. Graduates would typically seek positions such as plant manager, production planner, supply chain and logistics manager, quality assurance officer, project engineer, program coordinator, lean operations specialist, and contract engineering manager.

The University is seeking simultaneous licensure and accreditation because coursework is in place, existing faculty will teach in the program, no new resources are required, and the first graduates are projected for January 2012.

The Advisory Committee on Accreditation, at its meeting on March 18, 2010, reviewed the program and found it to be in compliance with Board of Governors approval standards. The Committee voted to recommend approval to the Board of Governors. The vote to recommend approval was all in favor with Gordon Simerson of the University of New Haven abstaining.

### Commissioner's Recommendation

It is recommended that the Board of Governors for Higher Education license and accredit a program in Engineering and Operations Management, leading to the Master of Science in Engineering and Operations Management (M.S.E.O.M.) degree, to be offered by the University of New Haven, for a period of time concurrent with institutional accreditation.

## Description

### Purpose and Objectives

The University has provided the following program objectives:

Students will have an understanding of:

- the necessity of reducing cost, conserving resources, and using "lean six sigma"
- the relationships between quality, customer satisfaction, and profitability
- the practical utility of statistics in addressing uncertainty in decision-making
- the power of modeling and simulation for operations and process improvement
- the theory and practice of management and organizational design
- the psychological issues associated with planned change
- the essential roles of marketing in the global economy
- the integration of analysis tools with problem-solving methodologies
- the importance of finance and money markets for all organizations
- the system of production with its outsourcing and supply chains
- the importance of operations and decisive execution in successful organizations
- the need to constantly discover and implement new technology
- the necessity to compete, flourish, and grow in a global, often hostile, environment

Graduates of the program are expected to:

1. Plan, create and control a technical organization and its operations
2. Make hard decisions with complex systems consequences
3. Manage quality, delivery, and pricing in the face of competition
4. Enhance their critical thinking skills relative to the process of change
5. Manage the design, prototyping, and production processes
6. Apply creativity in developing alternatives that will improve product value
7. Understand and utilize group and team dynamics to get things done
8. Strengthen their analytical and problem solving skills
9. Optimize their communication and presentation skills

### Administration

The MSEOM will be offered through the Tagliatela College of Engineering. The program courses are designed to offer a balance of theory and practical applications with a fair dose of software usage for problem solving in the services, operations and manufacturing areas. As such, this applied program will prepare graduates for employment in manufacturing and in technical service organizations.

The proposed MSEOM program will reside in the Industrial, System and Multidisciplinary Engineering Department within the Tagliatela College of Engineering. The program will have a coordinator who is a Professor of Industrial Engineering. He is currently the Coordinator of the existing MSIE program, and well qualified to lead this new program.

## Curriculum

The MSEOM degree requires 36 credit hours for completion.

### *Basic Courses*

EM 604 Concepts of Engineering and Quality Management	(3)
EM 607 Decision Making Under Uncertainty	(3)
EM 609 Applied Statistics for Quality and Engineering Management	(3)
EM 630 Project Management	(2)
EM 641 Supply Chain Management	(3)
EM 673 Specialized Topics in Engineering Management	(3)
EM 617 Financial Management/Engineering Applications	(3)
	Total: 20 credits

### *Focused Courses*

EM 613 Organizational Change and Development	(2)
EM 627 Value Engineering and Design	(3)
or	
EM 628 Six Sigma Quality Planning	(3)
EM 639 Achieving Optimal Operations	(3)
EM 681 Simulation Techniques and Applications	(3)
EM 690 Research Project	(3)
EM 615 Applied Marketing for Engineers and Operations Managers	(2)
	Total: 16 credits
	Program: 36 credits

Note: All courses except EM617 currently exist and are offered in regular academic schedules; EM617 is a new course created for this program.

The research project is designed to pull together all that a candidate has learned in the MSEOM degree program. A faculty advisor will work closely with the candidate to simulate a real-life engineering or operations project in a manufacturing plant or related organization. The candidate is expected to prepare a report of thesis quality, and to present it to a peer audience.

## Admissions and Enrollment

Potential students include engineering and technical professionals holding a bachelor's degree in science, technology, engineering, mathematics, or business seeking to expand their career horizons or to move up to technical and operational management positions.

Qualified applicants will hold a bachelor's degree from an accredited institution, or foreign equivalent, in engineering, science, business (with strong quantitative background), mathematics, economics, or technology. In cases where deficiencies that are likely to impede success in a given course exist, the student may be required to take certain courses as prerequisites. Given the interdisciplinary nature of the MSEOM program, applicants from non-engineering but related backgrounds will be encouraged to apply. Diversity in course enrollments leads to a rich learning environment in management-oriented programs.

The University of New Haven is projecting enrollment of 10 new full-time students per year, as well as 8 – 10 part-time students joining the program each year. It is anticipated that the first students will enter the program in Fall 2010. The MSEOM degree is designed to permit full-time students taking a normal three-course load to complete the degree in four trimesters. Part-time students often require 3-4 years to finish a graduate degree. The first graduates of the program would be expected in January, 2012.

#### Comments from Other Institutions in Connecticut

There have been no comments or questions about the program from other institutions of higher education in Connecticut.

### Resource Support

#### Faculty

All courses in the proposed program will be taught by current faculty. A search is underway for an additional faculty member in system engineering. This position is likely to provide some teaching support for the MSEOM, although its primary support will be for the B.S. in System Engineering program.

#### Library and Learning Resources

The existing library holdings servicing the Tagliatela College of Engineering and the College of Business will adequately meet the needs of the MSEOM program. No additional library resources are required.

#### Facilities and Equipment

No specialized facilities or equipment are needed for this proposed program.