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MEMORANDUM

To: Donna E. Shalala, President

From: Richard L. Williamson
Chair, Faculty Senate

Date: April 30, 2014

Subject: Faculty Senate Legislation #2013-42(B) – College of Engineering Dual Master of Science (MS) Degree in Civil Engineering with a Partner Institution, Università di Bologna

The Faculty Senate, at its April 23, 2014 meeting, unanimously approved the proposal of the College of Engineering for a dual MS Degree in Civil Engineering with a Partner Institution, Università di Bologna. The MS degree in Engineering is increasingly being viewed as the terminal degree for practicing engineers as opposed to the BS. This degree is designed to recruit and retain students in the 4+1 (combined BS and MS in five years), and to expand students' opportunities for a semester abroad during their fifth year by offering a dual MS degree.

Students in the program will earn two graduate degrees at the MS level in Civil Engineering, one from each school, with tracks in structures and environmental engineering. Students will study for two semesters at UM and two semesters at the partner institution, University of Bologna (UNIBO).

The proposal is enclosed for your reference.

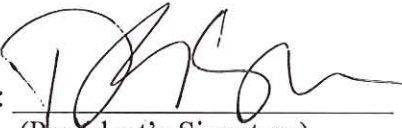
This legislation is now forwarded to you for your action.

RLW/rh

Enclosure

cc: Thomas LeBlanc, Executive Vice President and Provost
James Tien, Dean, College of Engineering
Antonio Nanni, Professor and Chair, Civil, Architectural, and Environmental Engineering

CAPSULE: Faculty Senate Legislation #2013-42(B) – College of Engineering Dual Master of Science (MS) Degree in Civil Engineering with a Partner Institution, Università di Bologna

APPROVED:  DATE: 6/9/2014
(President's Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Dean Tien

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

DUAL MS DEGREE RATIONALE

Outlook

The MS degree in Engineering is more and more being viewed as the terminal degree as opposed to the BS. In fact, both the American Society of Civil Engineers (ASCE) and the National Council of Examiners for Engineering and Surveying (NCEES) have endorsed the requirement of 30 credit hours beyond the baccalaureate as a condition for eligibility to the Professional Engineer (PE) license by January 1, 2020 (see ASCE Policy Statement 465). Thus, we foresee the 4+1 option (combined BS and MS in five years) to become the preferred choice of future for engineering students.

We also recognize the importance of expanding the horizons of the future generation of engineers by including international experiences in their formal education. In order to recruit and retain students in the 4+1 program, CAE has looked in expanding the opportunities for: a semester abroad during the fifth year (current), a dual MS degree (this proposal), and a joint MS degree (future).

The program

The purpose of this program is provide UM-CAE students with the opportunity to earn two graduate degrees at the MS level in the area of Civil Engineering with tracks in structures and environmental engineering. UM partner institution is the University of Bologna (UNIBO), Italy. Students will study for a period of two semesters at each university and obtain two MS degrees. By virtue of this arrangement, UM students will be eligible for professional engineering license in all countries of the European Union.

The credentials of UNIBO as an institution are outstanding. National level: UNIBO is consistently ranked among the top four Italian Universities (including Institutes of Technology). In the discipline of Civil Engineering, UNIBO is the only Italian institution to offer an international degree program totally taught in English (about 50% of the students enrolled in this program are international). From a research perspective, the Civil Engineering Department is member of national and international consortia and its R&D budget in the last three years has exceeded US\$3M/year. International level: UNIBO is the Italian highest-ranking institution at the international level. In Europe, UNIBO ranks together with U. Barcelona and Polytechnic of Valencia among the top three institutions for ERASMUS (European Community Action Scheme for the Mobility of University Students) exchanges.

Specifics

Financials. Tuition and fees will be paid by students at the home university and there will be no exchange of student tuition funds between UM and UNIBO.

Inbound UNIBO students will be admitted as regular UM MS-thesis option students (30-credit program) following existing UM admission and graduation requirements. The thesis option is necessary for inbound students so that they can transfer UM-earned credits back to UNIBO where the thesis is required for their UNIBO degree.

Outbound UM students admitted to this program are traditional 4+1 UM students. These students will earn a UM MS-non thesis (30-credit) degree as currently stipulated. From the course credits earned at UNIBO, they will transfer back to UM only 14 credits of approved coursework. They will have already satisfied the UM MS project requirements during their fourth year at UM (via year-long CAE 603). There are no variations with the current 4+1 program.

Transfer of credits. In order to make this program viable, 14 credit hours earned at UNIBO will be transferred and counted towards the UM MS degree. Reasons for this are:

- In order to obtain the MS degree from UNIBO, outbound students are required to spend a year at the host institution. If they were not allowed to transfer back to UM a minimum of 14 credits, they would not be able to obtain their three degrees in five years resulting in unsustainable financial implications.
- The 14-credit transfer corresponds to 47% of the credits to obtain the UM MS degree. Thus, the SACS rule on credit transfer for standard accreditation is not violated and the MS degree presently offered does not require any change or justification.
- The agreement with UNIBO is also based on reciprocity, where the two institutions allow the transfer of 47 and 50% of the credits required for the completion of their respective degrees.