Background and Motions from PCRRC regarding the new B.S. in Cybersecurity Program

University of Maine Faculty Senate
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April 27, 2015.

Background: The PCRRC considered two proposals for a new bachelor of science degree in cybersecurity, one from the University of Maine System and one from the School of Computing & Information Sciences (CIS) at the University of Maine. An open meeting was held on April 22 with eleven faculty members in attendance. The background for both proposals is summarized here while motions for the two proposals are presented separately. The University of Maine System (UMS) Program Proposal for a B.S. degree in cybersecurity is “offered by UMS Partnering Institutions as defined by a ‘Bachelor of Science in Cybersecurity Online Consortium-Memorandum of Understanding’ (MOU).” It is a seven campus initiative with each campus submitting its own proposal for the degree to be administered by the individual campuses. We agree that this can be a high quality degree for which there is immediate need. The MOU is in draft form with details left to be worked out by the Leadership Committee, which is comprised of "one faculty representative selected by each institution's Vice President for Academic Affairs (VPAA) and chaired by a VPAA from one of the Consortium Institutions," as described in the MOU.

With regard to the UMS proposal, there was concern regarding the financial consideration that “No additional costs are required to support first-year and subsequent year operations as courses are part of existing curricula and are regularly offered by existing faculty resources.” Quoting the University of Maine (CIS) proposal, “this does not seem possible in the absence of mechanisms for intercampus cooperation. These are not in place at this time and this proposal is put forward in the hopes of getting the University of Maine B. S. in Cybersecurity started, with the understanding that the program will evolve as intercampus cooperation questions are answered. This topic is pursued further in Section 7, where it is shown that the additional resources needed would be modest before Fall 2019” (University of Maine B.S. in Cybersecurity, Version 2.0). Existing programs are already stressed due to increasing students and decreasing faculty. It is also noted that some categories listed under consortium oversight (MOU) may necessarily be campus responsibilities such as accreditation and certification. The value of the program to students and the University of Maine and the UMS is recognized, as well as the effort to move the program forward.

The University of Maine proposal was prepared by George Markowsky of the School of Computing & Information Sciences (CIS). The proposal places particular emphasis on educational requirements of the University, the UMS Cybersecurity Program and the National Security Agency (NAS) which is currently the highest level of approval for cybersecurity programs. Given the desire to move the program forward, the attached motion is conditioned upon resolving financial concerns. The department is anxious to pursue the program but cannot jeopardize the quality of education for the already large number of majors.

Motion 1: The Faculty Senate supports the recommendation of the PCRRC, in support of the University of Maine System (UMS) B. S. in Cybersecurity Program Proposal, while questioning the premise that this can necessarily be accomplished at no additional costs.

Motion 2: The Faculty Senate supports the recommendation of the PCRRC, in support of the University of Maine B.S. in Cybersecurity, as presented by the School of Computing & Information Sciences (CIS), if financial needs are met. Mechanisms of intercampus cooperation and costs of long term addition of course sections need to be considered. PCRRC supports the proposal contingent on resolving financial issues.
Financial Consideration

The B.S. in Cybersecurity will require additional faculty resources in order to teach computer science courses that are part of the Cybersecurity curriculum. A total of twelve COS courses are part of the required courses. While most of these courses are existing courses, several are not offered on a regular basis. The School of Computing and Information Science does not have the faculty in order to offer these additional courses.

The following resources are needed:

   Academic Year 2016: Section money to offer COS 221 in Spring 2016.

   Academic Year 2017: Section money to offer (1) COS 221 in Spring 2017 and (2) COS 336 in Fall 2016, and (3) for COS 140 in Fall 2016 in case it’s enrollment exceeds 100 students.

   Starting in Fall 2017, we will need a full-time faculty.