**Report from BLP, Cybersecurity MS (CSM)**

**March 25, 2015**

The Budget and Long Range Planning Committee (BLP) has reviewed the Cybersecurity Master of Science as well as the resource implications of the program’s launch. We thank proposer Rika Yoshii and Dean Katherine Kantardjieff for their input and assistance as we reviewed the program’s resource implications. This program will be launched through self-supported funding as a Pilot Program.

**Program Overview:**

The purpose of the M.S. program in Cybersecurity is to prepare those with a strong background in computer science for management positions in this rapidly growing field. While housed in the College of Science and Mathematics, the program is a joint venture with the College of Business Administration. It will be a two-year, part-time graduate program primarily serving working adults. Development of the program was funded by a grant from the CSU Commission on Extended Learning.

**Program Demand:**

Cybersecurity is one of the fastest growing sectors in the computer science field. There are few degrees offering training in both technical and management fields. This degree fills a large community and national need for such management positions.

**Resource Implications:**

*Faculty:*

There are currently 7 full-time and 1 adjunct listed as faculty who could teach in the program. The program will also rely on industry experts as adjunct lecturers who will enhance the program. A tenure track faculty member will be hired to direct the program and teach some of the courses. The Director and Faculty selected to teach in the program will be subject to background and security checks given the potential contact with employees from defense industry and military who are subject to Department of Security Services reporting. All salaries are provided through the self-support model.

*Space and Equipment:*

There is access to smart classrooms and the online course management system currently in place. The courses will be offered in the evenings and on weekends to meet the needs of the working professionals who pursue the M.S. degree. Currently, that schedule aligns with underutilized times. Since there is no new faculty at this time, additional space and equipment are not in the EL budget.

*Staff:*

Staff advising and staff assistance for this program are funded through the self-support model. Staff advising (including transcript reviews) will continue to be handled by EL staff; EL also provides additional staff for the Department on an as-needed basis. Technical staff will be hired to establish and then break down the dedicated network necessary for each class. This network is necessarily outside of the existing university network.

*IITS and Library:*

The library report indicates that there the existing monographs and journals that support current graduate programs in Computer Science and Business would also be used in this program. In addition, to support the growth and advancement of Computer Science and Business programs at CSUSM, they strongly recommend additional resources at an estimated cost of $11,500 annually. There are also resource implications regarding librarians’ assistance with graduate research and assistance with electronic thesis/project submission.

While there is less impact on existing computer labs due to the off-peak hours for the courses in this program, this program necessitates reconfiguration of the campus labs to protect the campus network with increased server and firewall technologies. There will also need to be a dedicated computer lab with special infrastructure and a half time staff position to program various network technologies that mimic what students encounter in the workplace. This cost is estimated at $30,000.00 annually.

It should be noted that that all new programs require support from existing library and IITS faculty and staff. That support increases with professional development necessary for new faculty. As the campus continues to grow and new programs are added, whether they are funded through self or state support, new positions must be considered to maintain the current level of support. This program will be evaluated annually with regard to library and technology needs to ensure sufficient support. It is anticipated that with more use of classroom and computer lab space in the evenings and on weekends, there will also be increased need for support from IITS at those time.

Close attention should be paid to any possible budget deficits.

**Recommendation:**

BLP unanimously recommends the Master of Science in Cybersecuity.

