Criselda Yee

From: Criselda Yee
Sent: Monday, September 19, 2016 12:12 PM
To: Criselda Yee
Subject: RE: Email Exchange regarding cybersecurity P-2 form

From: Sajith Jayasinghe
Sent: Monday, September 19, 2016 9:29 AM
To: Criselda Yee <cyee@csusm.edu>; Lauren Manuel <lmanuel@csusm.edu>
Subject: Email Exchange regarding cybersecurity P-2 form

Criselda,

Could we add the following email exchange with Rika Yoshii and Teresa Jacklin regarding the Cybersecurity P-2 form on the curriculum review web site. We can then use this facilitate the review. I cut and pasted the emails (that I think you were copied on) by date.

Thanks,

Jay

Email Exchange regarding Cybersecurity P-2 form: Responses highlighted in blue:

From Rika Yoshii (on 9_19_2016):

From: Rika Yoshii <ryoshii@csusm.edu>
Subject: Re: UCC review of MS in Cybersecurity
To: Teresa Macklin <macklin@csusm.edu>, Sajith Jayasinghe <sjayasin@csusm.edu>

Upon clarifying UCC concerns with Jay, we would like to take out a sentence from the P2 form stating that this class will be used as a substitution of a required course. Although that may become a case in the future, the main reason for having MCS597 is to have a topics container (which we do not at this time).

Rika

From Rika Yoshii (on 9_14_2016):

1). UCC would like an expanded description of the material that would be discussed in MCS 500. There was a concern that the list of topics included in the included syllabus was not indicative of the rigor of a 500 level graduate course.

Teresa Macklin who will be teaching the course will respond to this one.

(2). We edited the catalog description of MCS 500 and MCS 510 . The edited versions are below. Please let us know if you agree with these changes.

Yes the following descriptions are fine with us.

For MCS 500: Overview of the field of cybersecurity, including different role players, common terms, fundamental technical elements, and fundamental management elements. Includes current events in cybersecurity.

For MCS 510: Theoretical and practical aspects of security in computer networks, including wired and wireless networks. Topics include: fundamental techniques and protocols used to insure secure communications, common attacks and defenses, and vulnerability assessment of network systems. Application and operationalization of network security technologies and techniques.

(3). For MCS 597 UCC noticed that the number of units were designated as 3/4/5/6 units (Q7 in the C-form). However we also noticed that the course may be repeated for up to 6 units. There was a concern that 6 units for a topics course was excessive. Was the intention to have a 1, 2, or 3 unit course that could be repeated for up to 6 units? UCC would like clarification on this matter.

If they take the 6 unit version, they reach the 6 unit maximum. If they take the 3 unit version, they can repeat it to get 3 more units. Since this is a PSM program with students from the local industry, it is possible that we will get 5 students from say ViaSat who already knows Penetration Testing. Then we will have to offer a 4 unit course for them. If they already also knew policies, then 4+2 = 6 unit course will have to be offered to them.

(4). For MCS 597 to be a variable unit course the proposal should be to offer different versions of the course with the appropriate number of units. For example MCS 597-A, M CS 597-B, and MCS 597-C for a 1, 2, or 3 unit class.

Yes I agree, but we need the versions for 4, 5 and 6 units.

(5). The committee noticed that MCS 597 would only be offered/taken by students who do not require one of the required courses in the program. Given this situation how many students do you expect to enroll in MCS 597? Would it be more efficient to enroll the students who need an alternate course in an independent study?

We do not want to offer independent study to a group of students who have the same background.
We prefer to teach a course that the particular company may want us to cover for their employees.

I hope my answers help. Please let me know if there are other questions.

From Teresa Macklin (on 9_16_16)

Hello -

1) MCS500 will introduce students to modern cybersecurity topics and issues. Students will develop a broad frame of reference in which to place current events, laws, threats and vulnerabilities. This class provides students with the framework necessary to build cybersecurity expertise on technical and process-oriented topics. Students will use this framework to analyze the economic, political, social, technical and operational context for cybersecurity incidents, applications and issues. This class will explore fundamental cybersecurity topics, using current events (where possible) to develop multiple forms of communications for both technical and non-technical audiences.

Specific concepts intended for that course (from the curriculum map for the Cybersecurity program) include the following:

- Confidentiality, integrity, and availability concepts
- Legal and regulatory issues
- Security policies, standards, procedures and guidelines
- Physical security
- Authentication Mechanisms
- Least privilege
- Asset classification
- Privacy

- Economics of cybercrime
- Encryption
- Threats
- Vulnerabilities
- Current cybersecurity environment

The vast majority of these topics will be studied in depth in subsequent courses within the program, but it is necessary to provide a contextual framework for those topics so that students are able to understand how the technology or method fits within the field of cybersecurity. For example, students learn Cryptography but they will receive more value from that knowledge if they are aware of how cryptography is used to implement the encryption methods that protect our web sessions from being visible to others. They should also understand the purpose for the different crypto algorithms and how they are used to protect technology assets.

Please let me know if I can clarify further.

tm

From Rika Yoshii (on 9_17_16)

Dear UCC

After much thought, I think it is OK to have just three versions of CS597 (1 unit, 2 units and 3 units) and repeatable up to 6 units.

Rika

From Teresa Macklin (on 9_18_16)

Hello -

Rather than take this to the committee tomorrow, is it possible for Rika and I to have an opportunity to discuss this issue? I understand your concerns about the MCS597 units and would like to clarify with Rika exactly how we would implement the situation involving multiple students with differing needs, should that ever become necessary.

I'll try to get with Rika first thing and possibly we'll have a response before the committee meets.

tm

Rika Yoshii
Sajith Jayasinghe

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