

**SPECIAL REPORT
OF THE
GRADUATE COUNCIL**

concerning

**REVISION TO THE GRADUATE CERTIFICATE
IN INFORMATION SECURITY
(#5309)**

Presented at the
782nd Regular Meeting of the Faculty Senate
December 6, 2018

COUNCIL MEMBERSHIP

GRADUATE COUNCIL

Nadia Al-Ahmed, Sonia Alvarez, Joseph Black, Justin Burch, D. Anthony Butterfield, Ana Caicedo, Canan Çevik, David Cort, Robert DeConto, Jennifer Friedman, Mark Hamin, Laura Hancock, Neil Immerman, Cynthia Jacelon, Ramakrishna Janaswamy, Barbara Krauthamer, John Lopes, David Morin, Martina Nieswandt, Sarah Pfatteicher, Sarah Poissant, Rebecca Reznik-Zellen, Frederic Schaffer, Patrick Sullivan, Bianki Torres, David Vaillancort, Tilman Wolf, Kristine Yu

GRADUATE COUNCIL

The Graduate Council recommends approval of this proposal.

Briefly describe the Proposal

The certificate requires students to take 9 credits from a menu of "Core Courses". We would like to add to more choices to that menu: COMPSCI 590A System Defense and Test and COMPSCI 660 Advanced Information Assurance. Note that we are in the process of requesting a permanent course number for 590A.

Provide a brief overview of the process for developing this proposal.

This change is requested based on experiences we have had over the last year running the certificate. It better serves our off-campus and on-campus MS students.

Describe the purpose and particular goals for this proposal.

To increase opportunities for students to complete the certificate. COMPSCI 590A is a class we did not have in place when creating the certificate. COMPSCI 660 allows students to more easily complete the certificate and the MS in Computer Science.

Resources

If this proposal requires no additional resources, say so and briefly explain why. If the proposed changes will require additional resources, explain how they will be paid for. Indicate how many new enrollments are expected as a result of these revisions and how the courses will accommodate them.

No additional resources. These classes are already being offered.

Curriculum

Describe both the current and proposed curricula for this certificate, indicating any changes, including the addition of any new courses to satisfy core or elective requirements. If the revisions include courses that have not yet received permanent status, please note their status as experimentals or in the Faculty Senate workflow. If the proposed revision does not affect the curriculum, please note so here. If you would like to attach any curricular worksheets or other materials describing the current or proposed curriculum, you may attach them below. .

As stated above: The certificate requires students to take 9 credits from a menu of "Core Courses". We would to add to more choices to that menu: COMPSCI 590A and COMPSCI 660 added. Note that we are in the process of requesting a permanent course number for 590A.

The current curriculum is:

Total: 15 credits

Core Courses (9 credit hours)

- 1) CICS 597C ST-Introduction to Computer Security; or COMPSCI 597N ST-Introduction to Computer and Network Security
- 2) INFOSEC 690L (or CICS 597L) Internet Law & Policy; or COMPSCI 591L: S-Computer Crime Law and the Technologies of Investigation and Privacy
- 3) INFOSEC 690R (or CICS 597M) Information Risk Management

Elective Courses (6 Credit Hours)

Any 3-credit-hour courses at the 500-level or higher offered by College of Information and Computer Sciences that have an appropriate focus are eligible to count as elective credit towards this certificate. Additional courses from another school/college at UMass Amherst with appropriate focus can also be approved by the Graduate Program Director.

Example electives include COMPSCI 590F Digital Forensics, COMPSCI 590B Detecting Interference in Networks, and COMPSCI 591SP Seminar - Digital Currencies: A

Multidisciplinary Perspective, and versions of these courses offered in the future under a CICS course number. (N.B., CICS is a different designation than COMPSCI.)

A minimum GPA of 3.0 and no grade below C are required for certificate completion.

The New Curriculum will be:

Total: 15 credits

Core Courses (9 credit hours)

- 1) CICS 597C ST-Introduction to Computer Security; or COMPSCI 597N ST-Introduction to Computer and Network Security**
- 2) INFOSEC 690L(or CICS 597L) Internet Law & Policy; or COMPSCI 591L: S-Computer Crime Law and the Technologies of Investigation and Privacy**
- 3) INFOSEC 690R (or CICS 597M) Information Risk Management**
- 4) COMPSCI 590A (or INFOSEC 690S) System Defense and Test**
- 5) COMPSCI 660 Advanced Information Assurance**

Elective Courses (6 Credit Hours)

Any 3-credit-hour courses at the 500-level or higher offered by College of Information and Computer Sciences that have an appropriate focus are eligible to count as elective credit towards this certificate. Additional courses from another school/college at UMass Amherst with appropriate focus can also be approved by the Graduate Program Director.

Example electives include COMPSCI 590F Digital Forensics, COMPSCI 590B Detecting Interference in Networks, and COMPSCI 591SP Seminar - Digital Currencies: A Multidisciplinary Perspective, and versions of these courses offered in the future under a CICS course number. (N.B., CICS is a different designation than COMPSCI.)

A minimum GPA of 3.0 and no grade below C are required for certificate completion.

**MOTION: That the Faculty Senate approve the Change to the Graduate Certificate in
10-19 Information Security, as presented in Sen. Doc. No. 19-027.**