NOTE: Changes to programs may require course changes, which must be processed electronically. Any questions should be directed to Associate Provost David Reinhold at 7-4564 or david.reinhold@wmich.edu

DEPARTMENT: CS and BIS
PROPOSED EFFECTIVE FALL YEAR: 2019

PROPOSED IMPROVEMENTS: Academic Program Proposed Improvements

☐ New degree* ☐ New minor*
☐ New major* ☐ Deletion*
☐ New curriculum* ☐ Revised major
☐ New concentration* ☐ Revised minor
☐ New certificate*

☒ Other (explain**)

** Other: Catalog Language Description Revision and Course Designation Change

Title of degree, curriculum, major, minor, concentration, or certificate: Certificate Program in Information Security

CHECKLIST FOR DEPARTMENT CHAIRS/DIRECTORS

☐ For new programs and other changes that have resource implications, the dean has been consulted.
☐ When appropriate, letters of support from department faculty are attached.
☐ When appropriate, letters of support from other departments in the same college are attached.
☒ The proposal has been reviewed by HIGE for possible implications for international student enrollment.
☒ The proposal is consistent with the departmental assessment plan, and identifies measurable learning outcomes for assessment.
☐ Detailed resource plan is attached where appropriate.
☒ All questions attached have been completed and supporting documents are attached.
☒ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair/Director: ___________________________ Date 11/27/2018

CHECKLIST FOR COLLEGE CURRICULUM COMMITTEE

☐ The academic quality of the proposal and the faculty involved has been reviewed.
☐ Detailed resource plan is attached where appropriate.
☐ Consistency between the proposal and the relevant catalog language has been confirmed.
☐ The proposal has been reviewed for effect on students transferring from Michigan community colleges. Detailed information on transfer articulation must be included with undergraduate proposals.
☐ Consistency between the proposal and the College and department assessment plans has been confirmed.
☐ Consistency between the proposal and the College and department strategic plans has been confirmed.
☐ All questions attached have been completed and supporting documents are attached.
☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair, College Curriculum Committee: ___________________________ Date ___________________________
NOT FOR USE FOR CURRICULAR COURSE CHANGES
REQUEST FOR PROGRAM IMPROVEMENTS

1. Explain briefly and clearly the proposed improvement:
   We are revising a section of the catalog description to clarify admission language and changing course
designations from CIS to CYIS and CS to CYCS in order to match approved course designation changes for the
program.

2. Rationale. Give your reason(s) for the proposed improvement.
   Originally, we had noted students should apply for non-degree status. Although this is technically correct,
students were choosing "non-degree" and not the applying to the certificate program. Our change clarifies this for
students reading the catalog description.

   We are changing designations from CIS to CYIS and CS to CYCS in the appropriate courses because this
change has been approved under a separate Program Improvement submission. The course designation change
delineates Information Security courses from other courses offered by the departments.

3. Effect on other colleges, departments, or programs. If consultation with others is required, attach evidence of
consultation and support. If objections have been raised, document the resolution. Demonstrate that the program
you propose is not a duplication of an existing one.

   No impact on either of the departments or colleges. This is a catalog clarification and a course designation
change that has already been discussed among the departments and colleges.

4. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

   This catalog description change makes it clearer for students applying to the certificate program. The course
designation change clarifies the courses that count toward the Information Security program versus other offered
degrees and majors.

5. Alignment with college's and department's strategic plan, mission, and vision.

   Alignment remains the same. These is a cross-disciplinary program designed by both CIS and CS faculty.

6. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for
students to meet graduation requirements? Can students complete the program in a reasonable time? Show that
you have considered scheduling needs and demands on students' time.

   This catalog language change makes it easier for students to know how to apply to the program. The course
designation change makes it easier for students to know which courses count toward their certificate. In addition,
it helps students not in the certificate program know that the courses might not count toward their degree (MBA,
MS in CS, etc.).

7. Student or external market demand. What is your anticipated student audience? What evidence of student or
market demand or need exists? What is the estimated enrollment? What other factors make your proposal
beneficial to students?

   The certificate program and associated courses have been offered for almost two years as part of the Information
Security Graduate Certificate and the M.S. in Information Security.

Revised Sept. 2018. All previous forms are obsolete and should not be used.
Current Catalog Language

Certificate Program in Information Security: Computer Information Systems

The Information Security: Computer Information Systems Graduate Certificate is an interdisciplinary online practitioner-based offering concentrating in the growing field of information security. This certificate is comprised of five courses offered by the Business Information Systems and Computer Science departments. Two core courses are required and then students must select one of the specialized tracks to complete the certificate.

Students working towards the graduate certificate must be admitted into the graduate college as a non-degree seeking student. Students must have a bachelor degree in either a technical discipline or an appropriate discipline related to their chosen track. Students with other bachelor degrees and professional experience will also be considered.

The graduate certificate is offered completely online. Students do not need to attend classes at the main or any regional campuses in order to earn the certificate. Graduate credit is earned for all passing classes.

Required Courses (15 credit hours)

Core Courses (6 credit hours)

The following two courses must be completed by all students.

- CIS 5710 - Information Security Fundamentals Credits: 3 hours
- CS 5710 - Network Security Fundamentals Credits: 3 hours

Tracks (9 credit hours)

Students must choose a track and successfully complete all courses from either the Information Security Management Track or the Secure Software and Engineering Track to earn the certificate.

Information Security Management

- CIS 6710 - Information Assurance and Security Credits: 3 hours
- CIS 6720 - IT Governance and Service Management Credits: 3 hours
- CIS 6730 - Cyberwarfare, Cybercrime, and Digital Forensics Credits: 3 hours

Secure Software and Engineering

- CS 5730 - Secure System Administration Credits: 3 hours
- CS 5740 - Web Application Security Credits: 3 hours
- CS 5750 - Secure Software Development Credits: 3 hours
Proposed Catalog Language

Certificate Program in Information Security: Computer Information Systems

The Information Security: Computer Information Systems Graduate Certificate (ISGC) is an interdisciplinary online practitioner-based offering concentrating in the growing field of information security. This certificate is comprised of five courses offered by the Business Information Systems and Computer Science departments. Two core courses are required and then students must select one of the specialized tracks to complete the certificate.

Students working towards the graduate certificate must be admitted into the ISGC program. Students must have a bachelor’s degree in either a technical discipline or an appropriate discipline related to their chosen track. Students with other bachelor’s degrees and professional experience will also be considered.

The graduate certificate is offered completely online. Students do not need to attend classes at the main or any regional campuses in order to earn the certificate. Graduate credit is earned for all passing classes.

Required Courses (15 credit hours)

Core Courses (6 credit hours)

The following two courses must be completed by all students.

- CIS 5710 - Information Security Fundamentals Credits: 3 hours
- CYCS 5710 - Network Security Fundamentals Credits: 3 hours

Tracks (9 credit hours)

Students must choose a track and successfully complete all courses from either the Information Security Management Track or the Secure Software and Engineering Track to earn the certificate.

Information Security Management

- CYIS 6710 - Information Assurance and Security Credits: 3 hours
- CYIS 6720 - IT Governance and Service Management Credits: 3 hours
- CYIS 6730 - Cyberwarfare, Cybercrime, and Digital Forensics Credits: 3 hours

Secure Software and Engineering

- CYCS 5730 - Secure System Administration Credits: 3 hours
- CYCS 5740 - Web Application Security Credits: 3 hours
- CYCS 5750 - Secure Software Development Credits: 3 hours

Revised Sept. 2018. All previous forms are obsolete and should not be used.