Special Topics: Introduction to Applied Cybersecurity
CSC 5991 Section 005

Fall 2016
Saturdays 10:00am thru 3:30pm – 306 State Hall
October 22 – December 17, 2016

Faculty Contact Information
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Please include “CSC5991-1609-005” in the subject line.

Course Description
This course addresses the broad range of industry best practices, knowledge, and skills expected of an IT security leader or practitioner. Students will learn both the theory and the requirements for practical implementation of core security concepts, practices, monitoring, and compliance. Students will also learn to maintain cost-effective security controls that are closely aligned with business requirements.

Credit Hours
Three (3) Credit hours for lectures.

Prerequisite(s)
CSC2200 and CSC2201, both with a grade of “C” or better, or Graduate standing, or Instructor approval.

Co-requisite(s)
None

Text Book
Mile2 C)ISSO Workbook and materials will be provided to students.
Optional Materials:
Computer Programs
No specific computer programs required. Basic familiarity with Windows and Unix/Linux operating systems and common applications are recommended for class lectures and discussions.

Course Contents
This course is closely aligned with the leading standards of ISO27001, NIST, CISM® and the 2012 CISSP® CBK® exam objectives. The course will cover the following topic areas (dates are tentative and subject to change):

Oct 29
Overview of Information Security
Risk Management

Security Management
Nov 5
Identity Management
Access Control
Security Models
Operational Security

Nov 12
Symmetric Cryptography
Asymmetric Cryptography
Network Connections
Network Protocols
Telephony

Nov 19
Virtual Private Networks
Wireless Networking
Security Architecture
Software Development
Database Security

Nov 26
NO CLASS (Thanksgiving weekend)

Dec 3
Malware
Business Continuity Planning
Disaster Recovery
Incident Management
Physical Security

Dec 10
NO CLASS (Online Review)

Dec 17
Final Exam
Course Learning Objectives:
The course learning objectives are skills and abilities students should have acquired by the end of the course. Upon successful completion of this class, the student will be able to:

<table>
<thead>
<tr>
<th>#</th>
<th>CSC 5991-005 Course learning Objectives</th>
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<tbody>
<tr>
<td>1</td>
<td>Understand core concepts of information security.</td>
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<td>2</td>
<td>Comprehend current and emerging security risks to organizations.</td>
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<td>3</td>
<td>Design and recommend security controls to minimize risk.</td>
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<td>4</td>
<td>Demonstrate knowledge and skills needed to successfully achieve CISSO certification.</td>
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<tr>
<td>5</td>
<td>Demonstrate knowledge and skills needed to successfully pass the CISSP examination.</td>
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Assessment:

| Participation: | 25% |
| Topic Tests:   | 40% |
| Final Exam:    | 35% |

Grading Scale:

A: 93-100
A-: 90-92
B+: 85-89
B: 80-84
B -: 75-79
C+: 70-74
C: 65-69
C -: 60-64
F: 0-60

Grading Policies:

Students are expected to not only attend the class sessions, but discuss, analyze, and showcase examples of security concepts. Students that attend all sessions and regularly contribute to the course will receive full participation scores.

Tests for each set of topics will be posted in Blackboard after each class session. Tests will consist of multiple-choice, selection, and essay questions regarding the concepts of the prior session. Unless otherwise noted, tests can be completed at any time up until 11:59 pm the Thursday following the class session.

The final exam will cover all material in the course, and will be held on the last scheduled day of class. While tailored towards the course content, the final exam is a good indication of the knowledge and details also covered in the CISSO and CISSP certification exams.

Final grades may be modified at the instructor’s discretion based on the actual difficulty of the course material.
Religious Holidays:
Because of the extraordinary variety of religious affiliations of the University student body and staff, the Academic Calendar makes no provisions for religious holidays. However, it is University policy to respect the faith and religious obligations of the individual. Students with classes or examinations that conflict with their religious observances are expected to notify their instructors well in advance so that mutually agreeable alternatives may be worked out.

Student Disabilities Services:
- If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located in the Adamany Undergraduate Library. The SDS telephone number is 313-577-1851 or 313-202-4216 (Videophone use only). Once your accommodation is in place, someone can meet with you privately to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.
- Students who are registered with Student Disability Services and who are eligible for alternate testing accommodations such as extended test time and/or a distraction-reduced environment should present the required test permit to the professor at least one week in advance of the exam. Federal law requires that a student registered with SDS is entitled to the reasonable accommodations specified in the student’s accommodation letter, which might include allowing the student to take the final exam on a day different than the rest of the class.

Academic Dishonesty
Academic dishonesty means any activity that tends to compromise the academic integrity of the institution or subvert the education process. All forms of academic misbehavior are prohibited at Wayne State University, as outlined in the Student Code of Conduct (http://www.doso.wayne.edu/student-conduct-services.html). Students who commit or assist in committing dishonest acts are subject to downgrading (to a failing grade for the test, paper, or other course-related activity in question, or for the entire course) and/or additional sanctions as described in the Student Code of Conduct.

- **Cheating:** Intentionally using or attempting to use, or intentionally providing or attempting to provide, unauthorized materials, information or assistance in any academic exercise. Examples include:
  - copying from another student’s test paper;
  - allowing another student to copy from a test paper;
  - using unauthorized material such as a "cheat sheet" during an exam.
- **Fabrication:** Intentional and unauthorized falsification of any information or citation. Examples include:
  - citation of information not taken from the source indicated;
  - listing sources in a bibliography not used in a research paper.
Plagiarism: To take and use another’s words or ideas as one’s own. Examples include:
- failure to use appropriate referencing when using the words or ideas of other persons;
- altering the language, paraphrasing, omitting, rearranging, or forming new combinations of words in an attempt to make the thoughts of another appear as your own.

Other forms of academic misbehavior include, but are not limited to:
- unauthorized use of resources, or any attempt to limit another student’s access to educational resources, or any attempt to alter equipment so as to lead to an incorrect answer for subsequent users;
- enlisting the assistance of a substitute in the taking of examinations;
- violating course rules as defined in the course syllabus or other written information provided to the student;
- selling, buying or stealing all or part of an un-administered test or answers to the test;
- changing or altering a grade on a test or other academic grade records.

Course Drops and Withdrawals:
In the first two weeks of the (full) term, students can drop this class and receive 100% tuition and course fee cancellation. After the end of the second week there is no tuition or fee cancellation. Students who wish to withdraw from the class can initiate a withdrawal request on Pipeline. You will receive a transcript notation of WP (passing), WF (failing), or WN (no graded work) at the time of withdrawal. No withdrawals can be initiated after the end of the tenth week. Students enrolled in the 10th week and beyond will receive a grade. Because withdrawing from courses may have negative academic and financial consequences, students considering course withdrawal should make sure they fully understand all the consequences before taking this step. More information on this can be found at [http://reg.wayne.edu/pdf-policies/students.pdf](http://reg.wayne.edu/pdf-policies/students.pdf).

Student Services:
- The Academic Success Center (1600 Undergraduate Library) assists students with content in select courses and in strengthening study skills. Visit [www.success.wayne.edu](http://www.success.wayne.edu) for schedules and information on study skills workshops, tutoring and supplemental instruction (primarily in 1000 and 2000 level courses).
- The Writing Center is located on the 2nd floor of the Undergraduate Library and provides individual tutoring consultations free of charge. Visit [http://clasweb.clas.wayne.edu/](http://clasweb.clas.wayne.edu/) writing to obtain information on tutors, appointments, and the type of help they can provide.

Restriction on Recording Class Presentations:
Students need prior written permission from the instructor before recording any portion of this class. If permission is granted, the audio and/or video recording is to be used only for the student’s personal instructional use. Such recordings are not intended for a wider public audience, such as postings to the internet or sharing with others. Students registered with Student Disabilities Services (SDS) who wish to record class materials must present their specific accommodation to the instructor, who will subsequently comply with the request unless there is some specific reason why s/he cannot, such as discussion of confidential or protected information.