Introduction to Cybersecurity

CSSS-5000

S2 2021  Section JC  3 Credits  03/15/2021 to 05/14/2021  Modified 03/12/2021

Meeting Times

Various Campus Locations

Class will meet weekly beginning on 3/16/2021 from 5:30 - 9:30.

Schedule:


Contact Information

Instructor: Dr. Brian Eugene McElyea

Email: mcelyeab@comcast.net
Phone: 19044494032

If you text me, which is okay, please ensure you add your name inside the text and course. You can also contact me via Canvas Inbox too.

Description

This requisite course is designed to provide the student an overview of the major core areas of study they will encounter throughout this program. Introduction of computer system architectures, vulnerabilities, critical infrastructures, the growing threat of social networks, intelligence and counter intelligence, international laws, security policies, privacy and information liability, cyber attacks and counter cyber attacks, encryption, risk assessment, cybersecurity forensics including data gathering and recovery, and a forward look at future cyber technology developments.

Requisites

There is no requisite course for CSSS 5000. However, this is a technical degree and there is an implied assumption the student works in information technology or has a generalized knowledge of information technology concepts.

Outcomes

The student will:

- Summarize and demonstrate an understanding and working knowledge of cybersecurity management terms and phraseology.
- Acquire and differentiate a broad understanding of the cybersecurity environment, computer, information and communication system operating principles and general applications of cybersecurity management.
- Classify and differentiate a basic working knowledge of cybersecurity awareness and threats.
- Describe the roles, responsibilities, and tools of a cybersecurity manager.
- Inventory and analyze the basic knowledge of critical infrastructures and potential threats and impacts.
- Summarize and discuss an understanding of the basics of the Comprehensive National Cybersecurity Initiative (CNCI).
- Explain the evolving environment of cybersecurity international law, national law enforcement, and organizational security
measures and counter measures.

- Classify future trends in cybersecurity issues facing public and private enterprises.
- Produce graduate level research papers and compose oral presentations.
- Demonstrate skills in the use of common graduate program technologies – PowerPoint, Internet, Library Resources, e-Reserves, Connections and Turnitin.

### Required Textbook

**Principles of Information Security**

- **Author:** Whitman, Mattord
- **Publisher:** Cengage Learning
- **Edition:** 6th
- **ISBN:** 978-1337102063

### Materials

**NIST WEBSITE**

The NIST Website is a very deep repository of federal cyber requirements.

[National Institute of Standards and Technology | NIST](https://nist.gov)

- **Availability:** Online
- **Price:** Free

Take a moment and poke around the site to learn its organizational structure and content areas.

### Deliverables

**Deliverables: Course Requirements**

- There will be an assigned weekly discussion topic around a cybersecurity issue we are learning about in class
- Every student will be required to present a chapter in the text (you are not expected to be the expert but to get practice speaking and presenting in class and to heighten your familiarity with a specific chapter in the text.
- A midterm examination will be required
- A final examination will be required
- Require a research paper of 12 to 15 pages following APA 6th Edition format

### Evaluation

**Breakdown**

The total points for this class equal 1,000. Grades are not weighted, and the workload grade percentages are:

- Weekly discussion topic around a cybersecurity issue we are learning about in class- 100 points
- Present a chapter in the text- 200 points
- Midterm examination - 200 points
- Final examination- 200 points
- Research paper- 300 points

### Schedule
Course Policies

- **Originality and Plagiarism**
  All Turnitin assignments over 25% will be reviewed which may result in a reduced or incomplete grade. Please ensure you submit work that is your own, and that any sources used are credible and clearly cited.

- **Late Assignments**
  Assignments will be accepted up to one week past the due date with a 10% grade deduction. Please coordinate with me in advance if you need an extension.
  If an assignment is turned in within hours of the due date, it will be accepted as on time. I encourage effort toward a quality product instead of rushing to turn something in on time.

- **Formatting and Content**
  APA formatting is the University standard and is enforced throughout this course. It is listed as a requirement on every assignment listing, and as an introductory course, this requirement is heavily enforced.
  As a Graduate level course, valuable content is critical. It is not enough to paraphrase entire answers; be sure to demonstrate thorough thought and understanding of the concepts. Please reference the Grading and Content guides, located in the Course Introduction module, for further details.

Institutional Policies

Academic Policies

Academic policies provide students with important rights and responsibilities. Students are expected to familiarize themselves with all academic policies that apply to them. Academic policies for undergraduate students can be found in the Undergraduate Studies Catalog; graduate students should review the Graduate Studies Catalog.

Undergraduate Studies Catalog

The Undergraduate Studies Catalog contains academic policies that apply to all undergraduate students. The academic policies and information section of the catalog contains important information related to attendance, conduct, academic honesty, grades, and more. If you are an undergraduate student, please review the catalog each academic year. The current Undergraduate Studies Catalog is at:

http://www.webster.edu/catalog/current/undergraduate-catalog/

Graduate Studies Catalog

The Graduate Studies Catalog contains academic policies that apply to all graduate students. The academic policies section of the catalog contains important information related to conduct, academic honesty, grades, and more. If you are a graduate student, please review the catalog each academic year. The current Graduate Studies Catalog is at:

http://www.webster.edu/catalog/current/graduate-catalog/

Grading

The Grades section of the academic catalog outlines the various grading systems courses may use, including the information about the final grade reported for this class.

Undergraduate

http://www.webster.edu/catalog/current/undergraduate-catalog/academic-policies.html#grading

Graduate

http://www.webster.edu/catalog/current/graduate-catalog/academic-policies.html#grades
Incomplete

There are important policies that govern grades of Incomplete (I), including the circumstances under which Incomplete grades are granted, deadlines for completion, and consequences should the remaining course work not be completed. It is the responsibility of a student who requests an Incomplete to ensure that he/she understands and follows the policies.

Grade Appeals

Instructors are responsible for assigning grades, and students should discuss grade issues with the instructor. Policies and procedures for appealing grades are available in the appropriate catalog.

Academic Honesty Policy

Webster University is committed to academic excellence. As part of our Statement of Ethics, we strive to preserve academic honor and integrity by repudiating all forms of academic and intellectual dishonesty, including cheating, plagiarism and all other forms of academic dishonesty. Academic dishonesty is unacceptable and is subject to a disciplinary response. Students are encouraged to talk to instructors about any questions they may have regarding how to properly credit others’ work, including paraphrasing, quoting, and citation formatting. The university reserves the right to utilize electronic databases, such as Turnitin.com, to assist faculty and students with their academic work.

The University’s Academic Honesty Policy is published in academic catalogs:

Undergraduate
http://www.webster.edu/catalog/current/undergraduate-catalog/academic-policies.html

Graduate
http://www.webster.edu/catalog/current/graduate-catalog/academic-policies.html

As a part of the University commitment to academic excellence, the Academic Resource Center provides student resources to become better acquainted with academic honesty and the tools to prevent plagiarism in its many forms:

http://www.webster.edu/arc/plagiarism_prevention/

Statement of Ethics

Webster University strives to be a center of academic excellence. The University makes every effort to ensure the following:

- The opportunity for students to learn and inquire freely
- The protection of intellectual freedom and the rights of professors to teach
- The advancement of knowledge through scholarly pursuits and relevant dialogue

To review Webster University's statement of ethics, see the Undergraduate Studies Catalog and the Graduate and Studies Catalog:

Undergraduate
http://www.webster.edu/catalog/current/undergraduate-catalog/overview.html#ethics

Graduate
http://www.webster.edu/catalog/current/graduate-catalog/ethics.html

Contact Hours for this Course

It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length. If a class session is cancelled for any reason, the content must be covered at another time.

Important Academic Resources
Academic Accommodations

Webster University makes every effort to accommodate individuals with academic/learning, health, physical and psychological disabilities. To obtain accommodations, students must identify themselves and provide documentation from a qualified professional or agency to the appropriate campus designee or the Academic ADA Coordinator at the main campus. The Academic ADA Coordinator may be reached at 314-246-7700 or disability@webster.edu.

If you have already identified as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor of the accommodations you will require for this class at the beginning of the course.

Academic Resource Center

Additional support and resources may be accessed through the Academic Resource Center (ARC). Support and resources include academic counseling, accommodations, assistive technology, peer tutoring, plagiarism prevention, testing center services, and writing coaching. Visit www.webster.edu/arc or Loretto Hall 40 on the main campus for more information.

Student Success Portal

Webster University’s Student Success Portal, powered by Starfish, is a communications tool to connect students with faculty members and campus support services. It allows faculty and staff members to communicate with you regarding academic achievements as well as areas where support may be helpful. You may use the portal to contact faculty and staff members for assistance and to arrange meetings. Activity in the portal will be communicated to your Webster University email account. The Student Success Portal is available via your course home page in WorldClassRoom or via Connections. Learn more about the Student Success Portal at http://www.webster.edu/success/students.html.

University Library

Webster University Library is dedicated to supporting the research needs and intellectual pursuits of students throughout the University’s worldwide network. Resources include print and electronic books, journal articles, online databases, DVDs and streaming video, CDs and streaming music, datasets, and other specialized information. Services include providing materials at no cost and research help for basic questions to in-depth exploration of resources. The gateway to all of these resources and services is http://library.webster.edu. For support navigating the library’s resources, see http://libanswers.webster.edu/ for the many ways to contact library staff.

Drops and Withdrawals

Drop and withdrawal policies dictate processes for students who wish to unenroll from a course. Students must take proactive steps to unenroll; informing the instructor is not sufficient, nor is failing to attend. In the early days of the term or semester, students may DROP a course with no notation on their student record. After the DROP deadline, students may WITHDRAW from a course; in the case of a WITHDRAW, a grade of W appears on the student record. After the WITHDRAW deadline, students may not unenroll from a course. Policies and a calendar of deadlines for DROP and WITHDRAW are at:

Undergraduate
http://www.webster.edu/catalog/current/undergraduate-catalog/enrollment.html

Graduate
http://www.webster.edu/catalog/current/graduate-catalog/enrollment.html

Academic Calendar - http://www.webster.edu/academics/academic-calendar/

Current tuition rates, policies, and procedures, including details of pro-rated tuition refunds, are available in the “Tuition, Fees, and Refunds” section of Webster’s Academic Catalogs:

Undergraduate
http://www.webster.edu/catalog/current/undergraduate-catalog/tuition.html
Student Handbook and Other Important Policies

Student handbook and other non-academic policies may apply to you and may impact your experience in this class. Such policies include the student code of conduct, privacy, technology and communications, and more. Please review the handbook each year and be aware of policies that apply to you. The handbook is available at:

http://www.webster.edu/student-handbook/

Sexual Assault, Harassment, and Other Sexual Offenses

Webster University makes every effort to educate the community to prevent sexual assault, harassment, and other sexual offenses from occurring, and is committed to providing support to those affected when this behavior does occur. To access information and resources or to review the Policy on Sexual Assault, Harassment, and Other Sexual Offenses, visit:

http://www.webster.edu/sexual-misconduct/

Research on Human Subjects

The Webster University Institutional Review Committee (IRB) is responsible for the review of all research on human subjects. The IRB process applies to all Webster University faculty, staff, and students and must be completed prior to any contact with human subjects. For more information on the IRB, visit:

http://www.webster.edu/irb/index.html

Course Evaluations

At the end of this course, you will have the opportunity to provide feedback about your experience. Your input is extremely valuable to the university, your instructor, and the department that offers this course. Please provide your honest and thoughtful evaluation, as it helps the university to provide the best experience possible for all of its students.

Important Technology Information

Connections Accounts

Webster University provides all students, faculty, and staff with a University email account through Connections. Students are expected to activate their Connections account and regularly check incoming University email. Students may choose to have their University email forwarded to an alternate email address. Connections account holders can call the Help Desk (314-246-5995 or toll free at 1-866-435-7270) for assistance with this setup. Instructions are also provided on the Information Technology website at:

http://www.webster.edu/technology/service-desk/

WorldClassRoom

WorldClassRoom is Webster’s Learning Content Management System (LMS). Your instructor may use WorldClassRoom to deliver important information, to hold class activities, to communicate grades and feedback, and more. WorldClassRoom is available using your Connections ID at:

https://worldclassroom.webster.edu/

Webster Alerts

Webster Alerts is the University's preferred emergency mass notification service, available free to current students, faculty and staff at all US campuses. By registering a valid cell phone number and email address, you will receive urgent campus text, voice mail and email communications. Valuable information concerning a range of incidents affecting you - from weather-related campus closures, class delays and cancellations, to more serious or life-threatening events - are immediately and simultaneously delivered through multiple communication channels. To register for Webster Alerts, visit: