

CY 110 Introduction to Cybersecurity

School of Technology & Computing

5 Credits, Undergraduate Course
Fall 2023

Access to the Internet is required.

All written assignments must be in Microsoft-Word-compatible formats.

See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.

Faculty Information

Professional experience information about instructors can be found under Content > Syllabus, Schedule, and Course Team > Meet Your Instructor in the online course menu.

Contact Information

Contact information for instructors can be found in the online course menu. Additional contact information regarding the TA for the course, the Program Manager, Program Director and Dean is also shared in the same location. Hyperlinks on the contact page direct students to the responsible party's weekly office hours.

Course Description

In this course, cybersecurity foundational principles are introduced in English (more than 50%) and Korean (less than 50%). Topics include foundational practices and techniques to protect data, secure technical and human systems, and protect society from cyberattacks. Alongside these technical subjects, students learn the Korean language and its intersection with technology. Students also learn about various career paths related to cyber security.

Course Resources

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found in the top navigation menu in Brightspace as well as from the library homepage.

Note: Required resources that must be purchased by the student are tagged “Purchase from a vendor of your choosing.” Required resources with a direct link, “Available through CityU Library”, are available at no cost to students.

Students in Canada will see required resources they need to purchase tagged “Purchase from the Canadian Bookstore.” Students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

Course Outcomes

At the end of the course, students will be able to:

- Explain cyberwar, cybercrime, and network security in English and Korean.
- Discuss major elements of cyber ethics in English and Korean.
- Demonstrate how to secure technical and human systems and the basics of protecting our society from cyberattacks in English and Korean.
- Analyze features of cybersecurity systems in English and Korean.
- Analyze the foundational practices of cybersecurity activities in English and Korean.

- Develop a basic cyber defense showcasing their technology skills in English and Korean.

Grading Scale

The grades earned for the course will be calculated using City University of Seattle's decimal grading system, found in the current University Catalog (<https://www.cityu.edu/catalog/>).

Grading rubrics with details on how each assignment will be graded are located under *Assignments* and/or in *My Grades* in the online course menu. Students should review the rubric for each assignment prior to completing their work in order to understand how it will be assessed.

OVERVIEW OF REQUIRED ASSIGNMENTS	% OF FINAL GRADE	POINTS
The Muddiest Point (MP)	5%	5 x 10 = 50
Discussion Board (DB)	25%	25 x 10 = 250
Hands-on Practice (HOP)	30%	30 x 10 = 300
Cybersecurity Exercise (CE)	30%	30 x 10 = 300
Knowledge Check (KC)	10%	10 x 10 = 100
TOTAL	100%	1000 Points

Course Assignments and Grading

The instructor will provide grading rubrics that will provide more detail as to how this assignment will be graded.

The Muddiest Point (MP)

At the start of each module, students are required to submit the Muddiest Point (MP) activity. The MP consists of writing and submitting a brief reflective paragraph (no more than 50 words) identifying the most confusing part (i.e., the "muddiest point") of the content covered in the module. If a student understands all concepts, the student needs to explain the most exciting or interesting aspect. There is one multiple-choice question from the required readings to demonstrate that the student understood the required readings. The purpose of this activity is to stimulate student engagement. The instructor uses the MP to assess how students understood the required readings and customize the lecture scope to implement Just-in-Time Teaching (JiTT).

Criteria	% of Grade
Participation	80%
Correctness	20%
TOTAL	100%

Course Outcome(s) Assessed:

- Discuss major elements of cyber ethics.
- Explain cyberwar, cybercrime, and network security.

Discussion Board (DB)

During each module, students participate in a discussion activity covering topics of cybersecurity and technology in English and Korean. Participation through discussion is an integral part of this course as it gives students an opportunity to explore the features of cybersecurity systems and the issues of cyberwar, cybercrime, and network security. Participation is defined as active engagement in a discussion or other activity. Instructors determine the type of activities and their due dates; moreover, different DB activities have different substance and length guidelines. The instructor provides specific instructions to students.

As part of this activity, the instructor provides prompts related to course topics. Students post an answer to the discussion topic to the online Discussion Board. By the end of the module, students also respond to two other classmate's postings. Although the tone of the postings and responses can be informal, the instructor expects the content to be on a professional level. Comments and questions for discussion should be clear and thoughtful, with correct grammar, spelling, and punctuation. As with written assignments, the quality of discussion postings and responses is graded on content.

Criteria	% of Grade
Participation	50%
Writing	50%
TOTAL	100%

Course Outcome(s) Assessed:

- Discuss major elements of cyber ethics.
- Explain cyberwar, cybercrime, and network security.

Hands-on Practice (HOP)

During each module, students complete online Hands-on Practice (HOP) exercises. The primary focus of the HOP exercises is for students to learn cybersecurity skills. In all modules, students are also learning about elements of cybersecurity. Although accuracy is important, this activity is for students to learn and practice skills using the provided guidance and direction. Therefore, students will be graded based on their engagement in the practice exercises.

Criteria	% of Grade
Engagement	100%
TOTAL	100%

Course Outcome(s) Assessed:

- Demonstrate how to secure technical and human systems and the basics of protecting our society from cyberattacks.
- Analyze features of cybersecurity systems
- Analyze the foundational practices of cybersecurity activities.
- Develop a basic cyber defense showcasing their technology skills.

Cybersecurity Exercise (CE)

During modules, students complete a Cybersecurity Exercise (CE) that supports the cybersecurity skills taught in the course and reinforces security competence. In this activity, students apply the knowledge and skills from the HOP to complete a verbal or written assignment demonstrating their developing Cybersecurity skills. This assignment is graded on accuracy.

Criteria	% of Grade
Accuracy	100%
TOTAL	100%

Course Outcome(s) Assessed:

- Demonstrate how to secure technical and human systems and the basics of protecting our society from cyberattacks.
- Analyze features of cybersecurity systems
- Analyze the foundational practices of cybersecurity activities.
- Develop a basic cyber defense showcasing their technology skills.

Knowledge Check (KC)

Weekly quizzes measure knowledge concepts acquired including Cyber workforce, cyber foundations, Cybercrime, Cyberwarfare, and core network fundamentals and provide a review of basic cybersecurity tools and tool functions.

Criteria	% of Grade
Correctness	100%
TOTAL	100%

Course Outcome(s) Assessed:

- Discuss major elements of cyber ethics.
- Explain cyberwar, cybercrime, and network security.

Course Policies

Late Assignments

All assignments are expected to be submitted when due. No late assignments are accepted without prior approval from the instructor. Life-situations do occur. When an issue arises, coordinate with the instructor prior to the assignment's due date and the due date may be

adjusted. It is in the best interest of the student to ensure that all assignments are submitted on time.

Participation

Participation through course activities and discussions to exchange knowledge, ideas, and thoughts is an integral, mandatory part of this course. It enhances the student's learning process and experience in this course. Class participation will be evaluated during the module week. Participation includes being prepared for discussions and contributing meaningful content when appropriate, sharing new ideas, examples, and resources. Lack of participation will result in a grade reduction.

Professional Writing

Assignments require error-free writing that uses both standard English and Korean conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style on specified assignments.

University Policies

Students are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

Antidiscrimination

City University of Seattle and its staff and faculty are committed to supporting our students. We value equity, diversity, and inclusion as a way of life as well as the educational opportunities it provides. City U will not tolerate any form of discrimination based on race, color, ethnicity, sexual orientation, gender identification, socioeconomic status, or religious values. If you have experienced any discrimination based on any of the above, we encourage you to report this to the University. Please report this to your instructor. If you do not feel safe reporting this to your instructor, please report to Dr. Scott Carnz, Provost or to the Vice President of Student Affairs, Melissa Mecham.

Non-Discrimination & Prohibition of Sexual Misconduct

City University of Seattle adheres to all federal, state, and local civil rights laws prohibiting discrimination in employment and education. The University is committed to ensuring that the education environment is bounded by standards of mutual respect and safety and is free from discriminatory practices.

In the U.S., the University is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex include sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Sexual harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, which are prohibited under Title IX and by City University of Seattle policy. City University of Seattle also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Questions regarding Title IX, including its application and/or concerns about noncompliance, should be directed to the Title IX

Coordinator. For a complete copy of the policy or for more information, visit <https://my.cityu.edu/titleix> or contact the Title IX Coordinator.

In Canada, in compliance with the British Columbia Human Rights Code, the Alberta Human Rights Act, WorksafeBC, and the Workers' Compensation Board of Alberta, the University believes that its environment should at all times be supportive and respectful of the dignity and self-esteem of individuals. Discrimination, harassment and bullying conduct, whether through person-to-person behaviour or via electronic communications such as email or social media is not acceptable and will not be tolerated. As an educational institution, it is our responsibility to cultivate an environment of excellence, equity, mutual respect and to recognize the value and potential of every individual. The University will take all necessary steps to meet or exceed the requirements of the law to prevent discrimination, harassment and bullying. The Respectful Workplace Policy for the prevention of discrimination, harassment and bullying policy and procedure can be found at <https://www.cityu.edu/discover-cityu/about-cityu/> under the Policies section or at <https://www.cityuniversity.ca/about/>.

Title IX Statement

City University of Seattle and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If students have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage them to report this to the University. If a student speaks with a faculty member about an incident of misconduct, that faculty member must notify CityU's Title IX coordinator and share the basic fact of the experience. The Title IX coordinator will then be available to assist students in understanding all of the options and in connecting students with all possible resources on and off campus.

To view CityU's sexual misconduct policy and for resources, please visit the [Title IX](#) and [Campus Safety](#) pages in the my.cityu.edu portal.

Religious Accommodations

Washington state law requires that City University of Seattle develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The University's policy, including more information about how to request an accommodation, is available in the University Catalog. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request Form found on the student dashboard in the my.cityu.edu student portal.

Academic Integrity

Academic integrity in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. Students are responsible for understanding CityU's policy on academic integrity and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Academic Integrity Policy*.

Attendance

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly.

Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if they are present at any time during the class session. For online classes, a student has attended if they have posted or submitted an assignment. A complete copy of this policy can be in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Attendance*.

Final Assignments Due Date

Final assignments for each class at CityU must be due on or before the final date of the course as indicated in the university's course information system. Due dates that extend beyond the final date of the course may negatively impact tuition funding for students.

Support Services

Disability Services Accommodations Statement

Students with a documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements. Please contact Disability Support Services at disability@cityu.edu or 206.239.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with course instructors.

Library Services

CityU librarians are available to help students find the resources and information they need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services online](#), 24 hours a day, seven days a week.

Online Tutoring

CityU students have access to free online tutoring offered through Brainfuse, including writing support, from certified tutors 24 hours a day, seven days a week. Visit the [Brainfuse](#) page on the my.cityu.edu portal for more information.

Rubrics

The Muddiest Point (MP) Rubric

	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard

Undergraduate Percentage Scale	0%-61.99%	62%-74.99%	75%-91.99%	92%-100%
Participation Weight 80%	Student provides an incomplete answer.	Student answers the question with only one or two sentences.	Student answers the question with sufficient length of content.	Student answers the question with sufficient length of content and includes citations.
Correctness Weight 20%	Student answers less than 62% of the questions correctly.	Student answers at least 62% but less than 75% of the questions correctly.	Student answers at least 75% but less than 92% of the questions correctly.	Student answers at least 92% of the questions correctly.

Discussion Board (DB) Rubric

	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
Undergraduate Percentage Scale	0%-61.99%	62%-74.99%	75%-91.99%	92%-100%
Participation Weight 50%	Student provides an incomplete answer, thereby demonstrating minimal engagement and lack of thoughtfulness.	Student answers the question, showing some thought but posts responses to only one student.	Student answers the question thoughtfully and posts responses to two students.	Student thoughtfully answers the question with references and posts responses to more than two students.
Writing Weight 50%	No submission or obvious grammatical or stylistic errors, making understanding difficult and	Submission contains spelling, grammatical, or punctuation errors interfering with coherence, ,	Submission is coherent with few spelling or grammatical errors, showing careful thought	Submission is coherent and grammatically correct with no errors, demonstrating

	reflecting a lack of thoughtfulness in the writing process.	indicating a need for more thoughtful review.	in the writing process.	thoughtful writing.
--	---	---	-------------------------	---------------------

Hands-On Practice (HOP) Rubric

	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
Undergraduate Percentage Scale	0%-61.99%	62%-74.99%	75%-91.99%	92%-100%
Engagement Weight 100%	Student completes less than 62% of the activity exercises, showing a need for increased involvement in the coursework.	Student completes at least 62% but less than 75% of the activity exercises, demonstrating some commitment, but room for improvement remains.	Student completes at least 75% but less than 92% of the activity exercises, indicating a high level of engagement with most of the tasks.	Student completes at least 92% of the activity exercises, exemplifying exceptional involvement in the coursework and dedication to the learning objectives.

Cybersecurity Exercise (CE) Rubric

	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
Undergraduate Percentage Scale	0%-61.99%	62%-74.99%	75%-91.99%	92%-100%

Accuracy Weight 100%	Student answers or responds to less than 62% of the exercise correctly.	Student answers or responds to at least 62% but less than 75% of the exercise correctly.	Student answers or responds at least 75% but less than 92% of the exercise correctly.	Student answers or responds to at least 92% of the exercise correctly.
---------------------------------------	---	--	---	--

Knowledge Check (KC) Rubric

	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
Undergraduate Percentage Scale	0%-61.99%	62%-74.99%	75%-91.99%	92%-100%
Correctness Weight 100%	Student answers less than 62% of the questions correctly.	Student answers at least 62% but less than 75% of the questions correctly.	Student answers at least 75% but less than 92% of the questions correctly.	Student answers at least 92% of the questions correctly.