

# **ISEC 500: CYBERSECURITY OVERVIEW**

## **School of Computing & Technology**

3 Credits, Graduate Course  
Spring 2021

*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 for instructors is found under *Faculty Information* in the online course menu.

## Contact Information

Contact information for instructors is found under *Faculty Information* in the online course menu.

## Course Description

This course will provide an overview of cybersecurity management and an understanding of the challenging environment in which it is applied. Students need to understand the entire cybersecurity landscape, including rules, laws, corporate laws and rules, decision-making, working in teams, leadership, and other ways that cybersecurity is changing people and the workplace. The role of technology has also changed about managing and designing a cybersecurity response or policy within a company. The student will learn how to balance technology, risk, risk management, people, and corporate culture to respond to cybersecurity challenges.

## Course Resources

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found under *Course Information* in Blackboard as well as from the library homepage (“Find Your Textbook” button).

**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 electronically at no cost to students.

Students in Canada may purchase course resources from the [Canada Bookstore](#), and students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

**Textbook:** Vacca, J.R., (2017) [Computer and information security handbook](#), Third edition, Morgan Kaufmann Publishers, ISBN: 0128039299; 9780128039298

### Reference

- Confidentiality, Integrity, and Availability (CIA triad). Retrieved from <https://whatis.techtarget.com/definition/Confidentiality-integrity-and-availability-CIA>
- Student Privacy 101. Retrieved from <https://studentprivacy.ed.gov/?src=fpc>.

## Course Outcomes

As a result of this course, students will know or be able to do the following:

- Understand foundation and advance principles of cyber and information security.
- Apply tools and technologies to threats and controls in the information systems environment - Common Threats & Controls.
- Analyze how people, culture, politics, regulations, policy, accreditation, and compliance influence cyber security practices - Influences on Cybersecurity.
- Evaluate countermeasures and strategies to address threats and vulnerabilities.
- Create a cybersecurity and risk management strategic plan.

## Additional Information

### 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%	50 = 5 points * 10 modules
Discussion Board (DB)	15%	150 = 15 points * 10 modules
Virtual Lab (VL)	32%	320 = 40 points * 8 modules
Research Paper (RP)	20%	200 = 200 points * 1 time
Team Project (TP)	28%	Proposal: 30 points Progress: 70 points Final Report: 120 points Final PPT: 60 points Subtotal: 280 points
<b>TOTAL</b>	<b>100%</b>	<b>1,000 points</b>

### 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)**

Before class, students are required to finish the muddiest point activity. This activity is designed to stimulate student engagement in class. Also, the instructor uses feedbacks of the Muddiest Point in preparation for the classroom lecture to implement Just-in-Time Teaching (JiTT). This activity consists of writing a brief reflective essay ( $\leq 50$  words) in which students identify the most confusing part (i.e. the muddiest point) of the content covered in the upcoming module. If you do not have MP, you can explain the most interesting point. In addition, students will answer one multiple choice question from the required reading to determine students' grasp of core concepts.

<b>Criteria</b>	<b>% of Grade</b>
Participation	40%
Writing	40%
Accuracy	20%
<b>TOTAL</b>	<b>100%</b>

### **Discussion Board (DB)**

A student posts an answer to a weekly discussion topic in Discussion Board. The student also posts a response to two other students' posts by the end of each module. Comments and questions should be clear and thoughtful, with correct grammar, spelling, and punctuation. The instructor will grade the quality of your discussion postings on both content and response.

<b>Criteria</b>	<b>% of Grade</b>
Participation	50%
Writing	50%
<b>TOTAL</b>	<b>100%</b>

### **Virtual Lab (VL)**

Students complete cloud-based labs that support the concepts taught within the course. VLS involve viewing instructional documents and following systematic instructions. Activities are embedded within each lab. The activities present a challenge to complete. Each lab is graded on accuracy and writing. A student has unlimited attempts at each lab to increase their accuracy and learn the required skills. Reports submitted include a write up on their understandings and findings in their lab reports.

<b>Criteria</b>	<b>% of Grade</b>
Accuracy	80%
Writing	20%
<b>TOTAL</b>	<b>100%</b>

### **Research Paper (RP): Factors Influencing Security**

Companies and organizations have many factors that influence how information security decisions are made within a company. The student will write a brief case study analysis on two factors such as budget, manpower, training, staffing choices, and other factors that influence how information security is implemented within a corporation.

In the research paper, each student will use an instructor-approved topic relevant to the course. The paper should be 7-10 pages, double-spaced, 12 font-size, excluding the title and reference pages, using APA format, with at least 5 recent, scholarly, peer-reviewed references. As in any scholarly writing, students should not merely copy information from another author, but use evidence to support the contentions they have drawn from their findings and critically analyze related literature - each paper needs to be an analytical paper, not a summary of readings.

Based on a particular company or organization that is the object of the study, students will prepare a case study paper. They will indicate a company or organization to be studied and provide an article about security at a company.

Criteria	% of Grade
Structure	20%
Content	40%
Writing	30%
Reference	10%
<b>TOTAL</b>	<b>100%</b>

### Team Project (TP)

Each student can select his or her team that consists of three students. A group of fewer than three students requires the instructor's approval. Each team will use an instructor-approved topic relevant to the course.

The paper must be no less than 6-7 pages. We require students to use the paper template from [EDSIG/CONISAR](#), the international conference standard. *The instructor may recommend the best papers in this course to conferences with your team's approval. If necessary, the instructor may require more revisions after the course is over. However, the paper submission is optional and has nothing to do with your course grade.*

The instructor will provide students three report templates and one presentation template. The file name consists of team project number, team number, and the list of the team members. For example, "TP01 T03 Sam John Mark."

- TP01 for the proposal - "TP01 T0X Author1 Author2 Author3.docx"
- TP02 for the progress report - "TP02 T0X Author1 Author2 Author3.docx"
- TP03 for the final report - "TP03 T0X Author1 Author2 Author3.docx"
- TP04 for the final presentation slide - "TP04 T0X Author1 Author2 Author3.pptx"

As in any scholarly writing, students should not merely copy information from another author. Students should use evidence to support the contentions they have drawn from their findings and critically analyze related literature. In essence, each paper needs to be an analytical paper, not a summary of readings.

In addition, a team presentation slide is required.

- The presentation consists of 15+4 slides: 15 slides for content and 4 slides for cover, agenda, key reference, and Q&A.
- The PPT template is provided. Your team can change design and color for your team's purpose.
- If necessary, a presentation video (15 minutes) may be requested.
- If necessary, a demo video (a maximum of 1-2 minutes) may be requested. But the demo time should be included in the total presentation time (15 minutes).

Four submissions are required according to the following schedule:

- Proposal (1 page; 30 points) - Starting (Module 1) & Ending (Module 3)
- Progress Report (3-4 pages; 70 points; graded after the proposal has been submitted) - Starting (Module 4) & Ending (Module 7)
- Final Report (6-7 pages; 70 points; graded after the progress has been submitted) - Starting (Module 8) & Ending (Module 10)
- Final PPT (15+4slides, 30 points; graded after the final report has been submitted) - Starting (Module 8) & Ending (Module 10)

Students are expected to use the assigned readings, videos, and other materials throughout the quarter. Students will need to utilize additional sources that were not assigned by the professor. While stylized after an industry report, nonetheless, students are expected to employ APA formatting of citations, footnotes, and bibliography. Students must cite the sources of all ideas, facts, and information used that are not their own, even if they have put the information into their own words. Failure to do so is plagiarism, although the oversight is unintentional. To avoid plagiarism, check <https://library.cityu.edu/howto/apa-writing/avoid-plagiarism/>.

### **Project Description: Cyber Security Assessment**

Students will perform a cybersecurity assessment of an environment they are familiar with. The environment can be where they work or other business.

Students must be sure not to divulge any proprietary information or the name of the business if evaluating either a current or previous work environment. If it is not possible to evaluate a current or previous work environment, students will assess an organization they may have had experience with, whether that is a business, medical environment, or even a retail store.

**Students must get permission from the targeted organization before performing a security assessment.**

The assessment should be based on the CIA security model and cover as many components of an enterprise cyber network possible. The assessment is passive only and will not include any attempted intrusions or other active components.

### **TP Report**

The student will provide a report formatted based on a template provided by the instructor. Students are required to improve the writing iteratively and incrementally every

week. The revision will always happen during a quarter. Students will add new required sections to the existing paper every week.

The final report is the culmination of applied research and activities conducted throughout the quarter. The final report/paper provides a detailed problem and its solution likely to be encountered by a company or organization described in a case study supplied by the student.

<b>Criteria</b>	<b>% of Grade</b>
Structure	20%
Content	30%
Writing	30%
Reference	10%
Collaboration	10%
<b>TOTAL</b>	<b>100%</b>

### **TP Presentation**

The student will report on the research outcomes, development, or other project efforts to an academically appropriate committee in a public forum. The nature of the presentation content will determine the specific makeup of the audience. The student will choose the format of the presentation, in consultation with the advisor. The layout and design must be appropriate and adequate to represent the outcomes of the effort. While students must make some form of a visual presentation, the presentation of the results may include publishing in a refereed publication, publication in a trade or popular magazine or journal, broadcast in an appropriate medium, or, in exceptional cases, limited dissemination within a closed community.

Each presenter will have 15 minutes for presentation and 5 minutes for questions and answers. Each presenter must keep the total presentation time limit strictly.

<b>Criteria</b>	<b>% of Grade</b>
Structure	20%
Visual Presentation	30%
Verbal Quality & Engagement	30%
Collaboration	20%
<b>TOTAL</b>	<b>100%</b>

## **Course Policies**

Course policies on topics such as *Late Assignments*, *Participation*, and *Professional Writing* are found under *Course Information* in the online course menu. Students are responsible for reviewing and applying these policies while enrolled in this course.

# 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.

## **Non-Discrimination & Prohibition of Sexual Harassment**

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/>.

## **Religious Accommodations**

City University of Seattle has 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 and on the my.cityu.edu student portal. Accommodations must be requested by the 20% mark of this course (e.g. day 14 of a ten-week course, day 7 of a 5-week 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 Assignment 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](mailto: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.

## **Smarthinking Tutoring**

CityU students have access to free online tutoring offered through Smarthinking, including writing support, from certified tutors 24 hours a day, seven days a week. Contact CityU's Student Support Center at [help@cityu.edu](mailto:help@cityu.edu) to request a user name and password.

# RUBRICS

## The Muddiest Point (MP) Rubric

### Description

Before class, students are required to submit the Muddiest Point (MP) activity. The purpose of this activity is to stimulate student engagement. The instructor uses the MP to assess how students understood the required readings. The instructor also uses the MP to customize the lecture scope to implement Just-in-Time Teaching (JiTT). The MP consists of writing a brief reflective essay (<= 50 words) identifying the most confusing part (i.e., the MP) of the content covered in the upcoming module. If a student understood all concepts, the student needs to explain the most exciting aspect. There is one multiple-choice question from the required reading to demonstrate that the student understood the required readings.

### Rubric Detail

100%	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Participation</b>  <b>Weight 30%</b>	No submission	Late submission	On-time submission	Submission turned in early.
<b>Writing</b>  <b>Weight 40%</b>	No submission.  Submission states the concept without explanation and shows grammatically incorrect in many places.	Submission states the concept without justification and shows partially grammatically correct.	Submission clearly states the concept and justifies why the topic was exciting or clearly explains what the student could not understand.	In addition, the submission is 50 words or less and shows critical thinking.
<b>Citation</b>	Does not include quote or citation.	Quote is included but the citation is incorrect or does not expand on	Quote is included with correct citation. The quote	Quote is included with correct citation. The quote

<b>Weight 10%</b>		the represented idea.	helps to explain the represented idea.	expands upon and explain the represented idea.
<b>Correctness</b> <b>Weight 20%</b>	Submission does not answer the questions correctly or fails to answer the question.	Submission does not answer the questions correctly or fails to answer the question.	Submission answers the questions correctly.	Submission answers the questions correctly.

## Concept Test (CT) Rubric

### Description

The instructor poses a problem based on key concepts of a lecture. After reflecting on the problem, students submit their response and the instructor review them without providing a correct answer. Students discuss their thought process and solution with a peer. Students then commit to an answer and re-submits their responses. Instructor reviews responses and thought processes with the correct answer.

### Rubric Detail

100%	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
Graduate Percentage Scale	0.00%-68.74%	68.75%- 86.24%	86.25%-93.74%	93.75%-100%
Engagement  Weight 100%	Submission does not show an answer or shows an answer without justification.	Submission shows an answer with justification, but there is no peer student engagement.	Submission includes an answer, justification, and peer engagement.	Submission includes an answer, justification, and peer engagement with critical thoughts.

## Discussion Board (DB) Rubric

### Description

A student posts an answer to a weekly discussion topic in Discussion Board. The student also posts a response to two other students' posts by the end of each module. Comments and questions should be clear and thoughtful, with correct grammar, spelling, and punctuation. The instructor will grade the quality of your discussion postings on both content and response.

### Rubric Detail

100%	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Participation</b>  <b>Weight 50%</b>	Submission does not post answer and responses.	Submission answers the question and posts responses to only one student.	Submission answers the question and posts response to two students.	Submission answers the question with references and posts responses to more than two students.
<b>Writing</b>  <b>Weight 50%</b>	No submission.	Submission posts responses with spelling errors, grammar errors, and punctuations.	Submission is coherent with only two spelling or grammar errors.	Submission is coherent and grammatically correct with no errors.

## Hands-on Skill (HOS) Rubric

### Description

The instructor will assign hands-on skill exercises to a pair of students in class or individually online. Students pair up and practice exercises to learn specific programming languages, application programming interfaces (APIs), or tools related to the programming assignments or virtual labs. Two quizzes measure hands-on skills acquired.

### Rubric Detail

100	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Skill Exercise</b>  <b>Weight 70%</b>	Submission does not show answers or shows answers without evidence.	Submission shows answers with minimal evidence.	Submission shows answers with some evidence.	Submission shows answers with full evidence.
<b>Engagement</b>  <b>Weight 20%</b>	Student does not engage in the exercise.	Student engages minimally in the exercise.	Student engages fully in the exercise.	Student mentors the other student to learn and succeed.
<b>Correctness</b>  <b>Weight 10%</b>	Answers none or 57.49% less of the questions correctly.	Answers 57.50% above or 76.24% less of the questions correctly.	Answers 76.25% above or 93.74% less of the questions correctly.	Answers 93.75% above or all the questions correctly.

## Virtual Lab (VL) Rubric

### Description

Students complete cloud-based labs that support the concepts taught within the course. VLs involve viewing instructional documents and following systematic instructions. Activities are embedded within each lab. The activities present a challenge to complete. Each lab is graded on accuracy and writing. A student has unlimited attempts at each lab to increase their accuracy and learn the required skills. Reports submitted include a write up on their understandings and findings in their lab reports.

### Rubric Detail

100%	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standards
<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Accuracy</b> <b>Weight 80%</b>	Activities not completed, not executable, or not submitted	The 68.75% - 86.24% of all required activities are partially completed and executable, but errors in activities.	The 86.25% - 93.74% of all required activities are completed and executable without any errors.	All required activities are completed and executable without any errors.
<b>Writing</b> <b>Weight 20%</b>	No submission.	Submission posts understandings and findings with spelling errors, grammar errors, and punctuations.	Submission is coherent and only two spelling or grammar errors.	Submission is coherent and free of spelling or grammar errors.

## Programming Exercise (PE) Rubric

### Description

The students must individually perform the programming exercise. Programs must be executable and robust. Non-executable programs will not receive any credits. Programs should deliver correct answers on all valid input and produce comprehensible error messages on invalid input. Programs also run correctly on all test data given within a reasonable amount of time. Students should write programs that are easy for other people to read.

### Rubric Detail

100%	Levels of Achievement			
Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard

<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Program Execution</b>  <b>Weight 40%</b>	No program submission.  Submitted. However, the program is not executable at all.	The program is partially executable on all test data without any error or warning messages.	The program is fully executable on all test data with limited error, warning, or interactions messages.	The program is fully executable on all test data with meaningful error, warning, or interaction messages.
<b>User Requirement</b>  <b>Weight 40%</b>	The program does not meet valid user requirements at all.	The program partially meets valid user requirements.  The program does not meet invalid user requirements at all.	The program fully meets valid user requirements. However, the program partially meets invalid user requirements.	The program fully meets valid and invalid user requirements.
<b>Program Documentation</b>  <b>Weight 20%</b>	The program does not show comments. The program does not follow programming style.	The program partially shows comments. The program partially follows programming style.	The program fully shows comments. However, the program partially follows programming style, vice versa.	The program fully shows comments. At the same time, the program fully follows programming style.

**Knowledge Check (KC) Rubric**

**Description**

**Weekly quizzes measure knowledge concepts acquired. Focus on the underlying principles and concepts rather than memorization to solve the quizzes.**

**Rubric Detail**

100%	Levels of Achievement			
<b>Criteria</b>	<b>Below Standard</b>	<b>Approaching Standard</b>	<b>At Standard</b>	<b>Exceeds Standard</b>
<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
<b>Correctness</b>  <b>Weight 100%</b>	Answers none or 68.74% less of the questions correctly.	Answers 68.75% above or 86.24% less of the questions correctly.	Answers 86.25% above or 93.74% less of the questions correctly.	Answers 93.75% above or all the questions correctly.

## ISEC 640 Team Project (TP) Report Rubric

### Description

Use this rubric for TP03 only. The student will provide a report formatted based on a template provided by the instructor. Students are required to improve the writing iteratively and incrementally every week. The revision will always happen during a quarter. Students will add new required sections to the existing paper every week.

The final report is the culmination of applied research and activities conducted throughout the quarter. The final report/paper provides a detailed problem and its solution likely to be encountered by a company or organization described in a case study supplied by the student.

### Rubric for Syllabus

	<b>Criteria</b>	<b>Outcome</b>	<b>% of Grade</b>
<b>Cybersecurity practices, skills, and designs (20%)</b>			
1	Cybersecurity	Analyze organizational cultural and resources available to effectively support cybersecurity initiatives.	20%
<b>Critical Thinking (60%)</b>			
2	Issue	Issue is stated and described thoroughly so that it is understood fully.	20%
3	Evidence	Information is taken from source(s) appropriate to the scope with enough interpretation and evaluation to develop a comprehensive analysis or synthesis, and expert opinions are thoroughly scrutinized.	10%
4	Context and Awareness	Thoroughly analyzes assumptions and biases, carefully evaluating contextual relevance when presenting a position.	20%
5	Conclusions	Conclusions are logical and reflect an informed evaluation of evidence and perspectives in priority order.	10%
<b>Collaboration (20%)</b>			
6	Teamwork	Works effectively on diverse, global and/or distributed teams.	10%
7	Knowledge of Cultural Frameworks	Demonstrates sophisticated understanding of the complexity of elements important to members of another culture in relation to its	5%

		history, values, politics, communication styles, economy, or beliefs and practices.	
8	Openness to Cultural Differences	Demonstrates sophisticated understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	5%
	<b>TOTAL</b>		100%

## Rubric Detail

	100%	Levels of Achievement			
	<b>Criteria</b>	<b>Below Standard</b>	<b>Approaching Standard</b>	<b>At Standard</b>	<b>Exceeds Standard</b>
	<b>Graduate Percentage Scale</b>	<b>0.00%-68.74%</b>	<b>68.75%- 86.24%</b>	<b>86.25%-93.74%</b>	<b>93.75%-100%</b>
1	Software Reverse Engineering  Weight 20%	Recalls aspects of software reverse engineering techniques and skills.	Issues are stated clearly and the implications and impacts of software reverse engineering is presented.	Issue is described and clarified within the body of knowledge.	Issues is stated clearly, integrated completely into the design practices and integration of practices which are clearly defined.
2	<b>Issue</b>  Weight 20%	Issue is stated without clarification or description.	Issue is stated but leaves some elements unaddressed, such as background, context, terms, boundaries, or ambiguities.	Issue is stated, described, and clarified so that understanding is not impeded by omissions.	Issue is stated and described thoroughly so that it is understood fully.
3	<b>Evidence</b>  Weight 10%	Information is taken from source(s) appropriate to the scope without any interpretation or evaluation, and expert opinions are taken as fact without question.	Information is taken from source(s) appropriate to the scope with some interpretation and evaluation, but not enough to develop a coherent analysis or synthesis, and expert opinions are taken as fact	Information is taken from source(s) appropriate to the scope with enough interpretation and evaluation to develop a coherent analysis or synthesis, and expert opinions are subject to questioning.	Information is taken from source(s) appropriate to the scope with enough interpretation and evaluation to develop a comprehensive analysis or synthesis, and expert opinions are thoroughly scrutinized.

			with little questioning.		
4	<b>Context and Awareness</b>  Weight 20%	Emerging awareness of assumptions and biases with limited identification of contextual relevance when presenting a position.	Questions some assumptions and biases with a limited range of contextual relevance when presenting a position.	Analyzes assumptions and biases and evaluates a range of contextual relevance when presenting a position.	Thoroughly analyzes assumptions and biases, carefully evaluating contextual relevance when presenting a position.
5	<b>Conclusions</b>  Weight 10%	Conclusions are inconsistently tied to some of the information discussed and is overly simplistic.	Conclusions are logically tied to information that support a desired conclusion.	Conclusions are logically tied to a range of information and include opposing points of view.	Conclusions are logical and reflect an informed evaluation of evidence and perspectives in priority order.
6	<b>Teamwork</b>  Weight 10%	Recalls aspects of how to work effectively on diverse, global and/or distributed teams.	Understands aspects of how to work effectively on diverse, global and/or distributed teams.	Applies effective strategies for working on diverse, global and/or distributed teams.	Evaluates effective strategies for working on diverse, global and/or distributed teams.
7	<b>Knowledge of Cultural Frameworks</b>  Weight 5%	State some elements that are important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Describe and explain some elements that are important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Argue and defend key elements that are important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Analyze sophisticated understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or

					beliefs and practices.
8	<p><b>Openness to Cultural Differences</b></p> <p>Weight 5%</p>	Ask complex questions about other cultures when considering an idea or solution.	Seek out answers to questions about other cultures when considering an idea or solution and suspends judgment in valuing their interactions with cultures that are different to their own.	Initiate and develop interactions with people from cultures different from than their own in order to inform an idea or solution. Suspend judgement in their interactions with cultures that are different to their own.	Argue and defend how concepts, perspectives, and people from cultures that are different from their own can enhance ideas and solutions. Suspend judgement in their interactions with cultures that are different to their own.