

CSc 4222/6222 Introduction to Cyber Security

Fall 2018

Time: MW 12:30 -14:15 pm, **Place:** Classroom South 428

Course Syllabus

REMINDER: The information presented in this syllabus is subject to expansion, change, or modification during the semester.

Instructor:	Prof. Xiaojun Cao
Office:	25 Park Place, suite 726 Georgia State University Atlanta, GA 30303
Email:	cao <at> cs.gsu.edu
Website:	http://www.cs.gsu.edu/cao
Office Hour:	MW 11:00 to 12:00 pm

Course Textbook and Materials:

- Introduction to Computer Security
by Goodrich and Tamassia
Pearson Publishing, 1st edition
- Handouts & Online Readings as assigned

Important GSU Deadlines:

- **Aug. 20-24, 2018**, Student Late Add/Drop.
- **Oct. 9, 2018**, the semester Midpoint (the last day to withdraw and possibly receive a "W" for full semester classes).
- **Dec. 3, 2018**, classes end
- **Dec. 10, 2018, 10:45-13:15**, Final Exam

Course Description:

This course provides an initial overview on the topic of Cyber Security. It covers the basics of encryption and decryption, program security including viruses and other malicious code, application security, security in operating systems, security in networks and distributed systems, different methods of administering security, and legal and ethical issues in computer security.

Prerequisites:

- CSc 2720 (Data Structures)
CSc 3320 (System Level Programming)
- The department will strictly enforce all prerequisites. Students without proper prerequisites will be dropped from the class, without any prior notice, at any time during the semester.

Course Organization:

The course includes lectures, programming assignments, and written exams. This course will provide an overview and cover the fundamentals of cyber security. The concepts include but are not limited to:

- Operating Systems Security
- Network Security
- Web Security
- Cryptography
- Malware
- Distributed Systems Security

Finishing the assignments, attending the lectures and reading the assigned materials will help you to get ready for the quiz and exam. ***No handwritten*** assignments will be accepted.

Written Exams

There are 2-3 in-class tests and one final exam. Each test focuses on the material covered since the last test. However, due to the cumulative nature of the material, all tests are comprehensive (i.e., they may draw on all material covered in the class thus far.). The course material on which the homework is based will be thoroughly tested on.

Final Exam: The final exam covers all material covered in the class.

Make up exams will only be given as a result of extremely extenuating circumstances (requires verification). You must notify your faculty member in advance.

All exams will be closed book and closed notes. You will be allowed to bring in one “cheat sheet”. The cheat sheet must be an original and handwritten on a double sided 8½” x 11” page.

POP Quizzes

Pop quizzes may be given to the class, at the instructor's discretion, therefore it is important to attend all classes. These pop quizzes (if any are given) will factor into the Exam grade or be marked as bonus points. There will be no make-up quizzes.

Assignments

5-6 assignments will be posted on the course website. They are assignments designed to test your mastery of topics covered up to that time. Preparing the solutions for the assignments will help you to partly get ready for the tests.

Assignment Due Date and Grading

The assignments are due within 10 minutes of the beginning of the class time on the due date (or specified by the instructor). Failure to submit your assignment on time will result in a grade reduction according to the following schedule. The percentage grade reduction will be calculated using the highest possible grade for that assignment.

One day late, 10% reduction in grade

Two days late, 30% reduction in grade

More than two days late 100%, zero for the assignment

All assignments must be turned in according to the submission instruction given in the class, consisting of the source code (all .java and .class files) and if you use the any other package, include this too. Any assignment turned in without either the .class or the .java files will immediately lose **50%**.

Extremely extenuating circumstances may be accepted as a valid excuse for not handing an assignment in on time (requires verification). You must notify the faculty member in advance, i.e. before the due time of the assignment.

Class Participation

Attendance is vital to success in this class.

Students are responsible for all materials covered in class and assigned. Should a student be absent from class, it is his/her responsibility to get the notes, etc. for that missed class. More important, should there be assignments, it is the student responsibility to obtain such assignments. No excuse will be accepted for assignments not turned in because the student was absent when such assignment was given. Do not send me an e-mail asking what was covered in the class missed.

Student is allowed up to three (3) absences. Roll will be taken during class, and a late student will be counted as absent. If a student has greater than three absences, then he (or she) may be dropped from this class. Anyone missing approximately 20% of the classes without notifying the professor in advance and obtaining the professor's concurrence may be withdrawn from the course or receive a lower (possibly failing, e.g. WF or F) course grade at the discretion of the professor; anyone receiving V.A. benefits will be reported to the Dean's Office in these circumstances. Students are responsible for all material covered or assigned in class whether or not it is in the text. See the current GSU Catalog for university guidelines. Your actions in the classroom should reflect the standards of behavior set in the commercial environment: you should be respectful of your classmates, the professor, and the course support personnel (the note-takers and interpreters) and you should willingly participate when asked to do so.

Grading:

The grading scale used along with the grading criteria is as follows:

Component	Weight (CSc4222)	Weight (CSc6222)
Assignment	30%	25%
Presentation & Participation	5%	5%
In-class Test/Quiz	35%	30%
Cumulative Final Exam	30%	25%
Term Project		15%

Range	Grade
90-100	A
80-89	B
70-79	C
60-69	D
<60%	F

Academic Honesty:

No tolerance on plagiarism! Please review the university policy on cheating as described at <http://www2.gsu.edu/~wwwfhh/sec409.html>

Students must work individually on quizzes and exams without any assistance from persons or things. It is the student's responsibility to protect work from copying. No outside help is permitted. Anyone found cheating and/or copying (in the opinion of the instructor) will receive an automatic F for that assignment or exam. This goes for the person who copies as well as the person who allows their work to be copied. Also, the Dean of Students office will be informed. If a book or paper is used, it must be referenced and not copied. Plagiarized work is determined solely by the professor and is graded solely at the professor's discretion.

Misc. Items:

- ***Absolutely no lame excuses please***, such as "I have to go home early, allow me to take the test on Apr 1", or "I had a fight with my girlfriend, which effects my performance", blah blah blah. Even when they are true, they are still lame.
- This course syllabus is a general plan for the class and adjustments in the course may be necessary at the discretion of the instructor.
- Any material submitted for work should be the student's own work. Duplicate assignments will receive a grade of zero. Any student found to be cheating on an examination or quiz will receive a score of zero. The Dean of Students office will also be notified. Refer to the university policy.
- Please advise the instructor if you have a documented disability that needs to be accommodated.
- All re-grading requests must be made within two classes of when the work was returned in class. No extra work in the next semester given to improve your grade. Any queries about the grades should be brought to the attention of the instructor within a week after the graded students' works have been returned to the class
- Turn off cell phones and keep them off the desk during the lectures. Text messaging during class is strictly prohibited and grounds for dismissal. Computers and cell phones should be off during tests and quizzes. Students may not leave the room during the middle of an exam or quiz.