

# CSIS 3381: Information Assurance and Security

## Section 001, Fall 2011

### Syllabus

**Instructor:** Aakash Taneja, Ph.D., PMP **Office:** J-216  
**E-mail:** **Blackboard email** **Phone:** 609-652-4948  
**Office Hours:** MWF: 10:00-11:00AM, by appointment.  
 Also, feel free to drop-in when I'm available in my office.

**Course Time and Location:** M, W, F 8:30 AM-9:45 AM  
**Location:** M, W –F 121 F – D 017

**Course Attributes:** W2

**Prerequisite:** CSIS 2102 and MATH 2225, willingness & motivation to learn and attain new heights.

**Course Description:** This course is designed for undergraduate student majoring in Computer science and Information Systems. During the semester, we will cover concepts, tools, and technologies associated with various technical, behavioral and administrative aspects of Information Security and Assurance. The students will be exposed to various activities, methods, methodologies, and procedures to secure the organization's information systems. It will include inspection and protection of information assets, detection of and reaction to threats to information assets, and an examination of pre- and post-incident procedures along with the technical and managerial responses to secure the systems. The course will provide the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system.

**Course Objectives:**

1. This course focuses on CSIS program learning goal 1 (personal growth), specifically life-long learning skills, decision making skills & ability to work efficiently, and CSIS program learning goal 2 (technical growth), specifically analytical thinking skills and communication skills by enabling students conduct research and express the research findings.
2. This course focuses on CSIS program learning goal 2 (technical growth), specifically knowledge and practice of problem solving by helping students gain factual knowledge (terminology, classifications, methods, trends, etc.) related to information security and assurance.
3. This course focuses on CSIS program learning goal 3 (industrial awareness), specifically practice in the application of appropriate technology by simulating the practical experience portion of the knowledge base of computer security.
4. This course focuses on CSIS program learning goal 3 (industrial awareness), specifically business acumen skills by helping students learn the information security essentials and domains of SSCP/CISSP Common Body of Knowledge to prepare for ISC<sup>2</sup> certification exams and CompTIA's Security + certification exam.
  - **CompTIA's Security + certification exam:** <http://www.comptia.org/certifications/listed/security.aspx>
  - **ISC<sup>2</sup> SSCP certification exam:** <https://www.isc2.org/sscp/default.aspx>

**Student Learning Outcome:** Upon successful completion of this course, the students will be able to:

Competency	Evaluation
Know the basic concepts of Information Security and assurance	Assignments and Exam
Define information security strategy and architecture	Assignments and Exam
Identify and prioritize threats to information assets	Assignments and Exam
Understand the role Information Security in the modern organization	Assignments and Exam
Understand and demonstrate how to assess and manage security risks	Assignments and Exam
Understand and describe the technical aspects of information security	Assignments and Exam
Understand Information Security Policies and how to develop them	Assignments and Exam
Explain the process of Business Continuity and Disaster Recovery Planning	Assignments and Exam
Understand the legal and regulatory requirements of Information Security	Assignments and Exam
Understand the ethical concerns related to information security	Assignments and Exam
Understand and conduct research in information security	Article Review, research paper

**Class Format:** This course is organized around lectures, discussions and lab activities. The students will have a variety of lab activities, case studies, research article reviews and assignments to reinforce the concepts.

**Text Required :** 1 Principles of Computer Security, Conklin, ISBN: 0071633758  
 2) Harvard Business School Cases

**Other Requirements:**

1. A Blackboard account (userid and password): Blackboard account will be used to access the online course materials. It will be used for all e-mail correspondence regarding this course. You will be responsible for checking your Blackboard account on a daily basis for any course updates. All assignments will be submitted via Blackboard.
2. The blackboard account for this class is **DIFFERENT** than the account for other classes and can be accessed at <http://bbweb.stockton.edu>. At the beginning semester, you will log in with username & PIN. Later in the semester, you will be able to use username and portal password. Please verify that you are able to log in to Blackboard and use this course profile by the end of first week of the semester. **(BB Helpdesk: 609-652-4309)**

**Class Participation:** It is necessary for you to actively participate in the class by: (1) soliciting further explanation from the instructor when a topic is not clearly explained; (2) contributing to the course content by relating relevant personal experiences, anecdotes, etc.; (3) challenging the remarks of the instructor or other students when appropriate. When participating please observe rules of common courtesy. You are expected to read the assigned material and be ready to participate in class discussion. There would be suggested class activities assigned from the text. You are expected to attempt class activities on the board and the class will discuss them.

Attendance for the **ENTIRE** class period / lab session is expected and each **absence over three** will be penalized 1 class participation point per absence. If you are **NOT** in the class / lab when attendance is taken, you are absent. All class participation points are at the discretion of the instructor and not just for attendance. Class involvement, submission of class work, courtesy and general behavior also affects this component of the grade. Please take instructor’s prior permission if you want to use electronic devices (e.g: laptop) for taking notes. Your participation grade will be reduced for activities such as web surfing, reading newspaper etc. during class time unless it is allowed by instructor for class purposes.

Class participation/involvement will be graded on a 1-5 point scale as follows.

	<b>Max points</b>
<b>Absent</b>	<b>0 point</b>
<b>Present, not disruptive.</b> Tries to respond when called on but does not offer much. <i>Very infrequent involvement in class discussion</i>	<b>2 points</b>
<b>Demonstrates adequate preparation:</b> Knows basic case or assigned text reading facts, but does not show evidence of trying to interpret or analyze them. Offers straightforward information (e.g., straight from the case or reading), without elaboration or very infrequently (perhaps once a class). <i>Does not offer to contribute to discussion, but contributes to a moderate degree when called on.</i>	<b>3 points</b>
<b>Demonstrates good preparation:</b> Knows case or assigned text reading facts well, has thought through implications of them. Offers interpretations and analysis to class. Contributes well to discussion in an ongoing way: responds to other students' points, thinks through own points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion. <i>Demonstrates consistent ongoing involvement.</i>	<b>4 points</b>
<b>Demonstrates excellent preparation:</b> has analyzed case or assigned text reading facts exceptionally well, relates it to other material (e.g., readings, course material, discussions, experiences, etc.). Offers analysis, synthesis, and evaluation of assigned text material, e.g., puts together pieces of the discussion to develop new approaches that take the class further. Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds very thoughtfully, contributes to the cooperative argument-building, suggests alternative ways of approaching material and helps class analyze appropriate approaches etc. <i>Demonstrates active ongoing involvement.</i>	<b>5 points</b>

**Lab Activities:** There will be some scheduled lab activities / assignments. All assignments need to be worked on individually. **No Late submissions will be accepted.** You are required to understand the **“White Hat Oath”** and sign the **“White Hat Agreement”** available on the Blackboard and submit to the instructor before the due date. *Additional details will be provided in the class.*

**Case Studies:** You will work in groups of three to analyze and discuss the case study in the class on the assigned date and submit the **group work** done in class. **Each student is required to read the assigned case study and be prepared to participate and respond to questions in the class.** You will also submit **responses** to the assigned case study questions on the due date. The group work, individual work on case studies and class discussions will be used to arrive at your individual score for each case study.

**Article Review:** You will select and review an article from the list of articles provided by the instructor and present it to the class on the assigned date. You must inform instructor that you are ready for the presentation at the beginning of the class period on the day of your presentation. *Additional details will be provided in the class.*

**Research Project:** You will pick a topic of your choice to conduct research related to “information assurance & security”. Use the journal articles presented in class as guide to the format and nature of your own work. You are required to submit the proposal and finalize the topic in consultation with me before the due date. You are required to upload your drafts / final research paper submissions on Blackboard before the due dates. . You will submit the final research project deliverables and give a 10-15 minutes presentation to the class towards the end of the semester.  
*Further guidelines for article review and research project will be provided in the class.*

**Due Dates:** All assignments **must be submitted electronically via Blackboard before the assigned due date.** The due dates will be available on Blackboard. **No Late submissions will be accepted.**

**Make-Ups:** Lab Assignments, case studies, article review and other class work cannot be made up. **However, one lab assignment may be dropped.**

**Study Groups:** You are encouraged to form small study groups to study and review the lecture, projects and other assignments. It will help you to identify topics that you are having difficulty understanding. You will have the benefit of each other's knowledge and be able to identify problem areas that can be addressed during the review sessions. It is very important to understand that consultation and group efforts should not be misconstrued as license to copy or plagiarize the work of others. You should do the assignments **ON YOUR OWN, be prepared to explain / defend your submitted assignments orally if called upon to do so, and able to fully explain your logic in reaching the solution.**

**Exams:** Examinations/quizzes are designed to test (1) your mastery of terms and concepts, and (2) your ability to apply those terms and concepts to problems. There will be 3 exams. The 2 midterm exams will cover material from the beginning of the class until exam day. The Final exam is cumulative. The exams may contain a mix of multiple choices, True/False, Fill in the blanks, essay type questions, etc.

**Pre- Exam Review Session:** There will be a pre- exam review session before each examination. Before the review session, you are recommended to read the material and prepare a list of questions / topics you are having difficulty in understanding. Please submit your list to the instructor via Blackboard at least one class prior to the review session.

**Make-Up Exams:** There will be no Make-up exams. If you miss an exam, you get a 0. The only exceptions to this rule are:

- 1) Documented medical excuse: please provide a note on doctor's letterhead on the first class you return to after the missed exam
- 2) Other institutional excuses: There may arise situations related specifically to Stockton that prevent you from being able to attend an exam. In most such cases, you should be aware of the conflict beforehand. Thus, I must be notified of this conflict one week prior to the missed exam. When you have to miss an exam due to participation in a University sponsored event, you must inform me prior to the exam and submit appropriate documentation to verify your claim.
- 3) Required travel associated with your job: please provide a letter by your superior on company letterhead
- 4) Other similar situations: similar documentation must be provided.

Lack of time to prepare for an exam or too many exams on one day will not be considered as sufficient reasons for a make-up. When you miss an exam for a valid reason, your grade for that exam will be determined based on your final exam grade. No makeup exam will be given under any other circumstance. The final can serve as a make-up for only one exam.

**Unannounced Opportunity Quiz:** There may be some unannounced opportunity quizzes throughout the semester at the instructor's discretion. **PRS devices (clickers)** will be used to administer these quizzes and **provide immediate feedback to the students in the class.** It will also assist me to adjust the learning material for better understanding by the students. **Each correct answer will give 2 points and incorrect answer will give 1 point for the question.** The weighted total points earned before the mid-term exams will count as **10% Bonus credit** for that exam. **Scores on these quizzes will give you a chance to improve your midterm exam scores. It WILL NOT hurt your grade.** No make-up will be allowed for the missed opportunity quizzes. You must use your assigned clicker to enter the answers. Entering responses by using other student's clicker or on their behalf is strictly prohibited. If you have any difficulty using the clickers or your clicker is not working, please notify the instructor immediately so that an alternate clicker can be arranged for you. Please **DO NOT wait** till the end of the class. A failure to notify on time will be considered as non-participation and hence the loss of points.

**Grading:** This is a professional course and you must demonstrate a comprehension of the material covered in the class. This comprehension must be demonstrated on the tests, assignments and work done in the class. Grading will be based on: 1) Exams, 2) Case studies, 3) Research work, 4) Lab activities, and 5) Class participation.

**Grade Distribution:**

Exam 1	15%
Exam 2	15%
Final Exam	20%
HBS Case studies	10%
Research work	25%
Article Review	5%
Research Project	20%
Lab Activities	10%
Class Participation	5%
<b>Total</b>	<b>100%</b>

**Note:** All graded exams (except Final exam) will be made available to you during the post-exam review session to help you understand your mistakes and better prepare for the final exam. **These exams are to be returned to the instructor at the end of the review session.** You may also schedule an appointment with me to further review your exams, or to review the final exam. **Please do not copy / take pictures of the exams (with your cellphones or other means). Taking pictures or failure to return the exam after the review sessions will result in 0 for the exam.**

**Re-Grades Policy:** If you believe there is an error in your score in any graded component, please submit a written statement (via e-mail) containing your rationale for the error and make an appointment with me to discuss about it. This statement needs to be supported by as much documentation from the text (cite the page number), lecture slides or other relevant material as possible to have the highest probability of success. **Simply sending a note to ‘regrade xyz’ without adequate justification is insufficient.** Re-grade requests will only be accepted up to one week after the score for that component is posted on Blackboard.

**Grading Scale:**

<b>A</b> : score $\geq 93$	<b>A-</b> : $90 \leq \text{score} < 93$	
<b>B+</b> : $87 \leq \text{score} < 90$	<b>B</b> : $83 \leq \text{score} < 87$	<b>B-</b> : $80 \leq \text{score} < 83$
<b>C+</b> : $77 \leq \text{score} < 80$	<b>C</b> : $73 \leq \text{score} < 77$	<b>C-</b> : $70 \leq \text{score} < 73$
<b>D+</b> : $67 \leq \text{score} < 70$	<b>D</b> : $63 \leq \text{score} < 67$	<b>D-</b> : $60 \leq \text{score} < 63$
<b>F</b> : score $< 60$		

**INCOMPLETE Grades:** A grade of incomplete will only be given under extraordinary unforeseen circumstances at the instructor’s discretion and must be approved prior to the end of the course. Poor performance, absences or travel are not considered sufficient grounds for incompletes. Instructors are not obligated to give "incomplete" grades.

**Academic Honesty:** Please familiarize yourself with Stockton’s policy on academic honesty. Violations will result in a minimum penalty of a grade of 0 for the assignment or test involved in the violation. No notes, texts, other students’ tests, or other aids may be consulted during the exam, unless permitted by the instructor. “Other Aids” that are not allowed include cell phones, calculators, PDAs, and other devices, unless indicated by the instructor prior to exam day.

**Americans with Disability Act (ADA) Statement** – A student who has a disability that might affect his/her performance in this course should consult with the instructor and the campus ADA compliance office, in confidence, by the second class session.

**ACADEMIC VIOLATION:**

The instructor of the course has the authority to give a course grade of F if the student uses / submits the work of another person in a manner that represents the work as one’s own, or knowingly permits one’s work to be used / submitted by another person.

**The syllabus may change due to class or external circumstances. Any changes will be duly announced in the class and / or made available via Blackboard. It is the student’s responsibility to be aware of these changes.**

## Expected Schedule

This schedule may change due to class or external circumstances. Any change in the exam dates will be announced at least one week prior. Numbers of labs are subject to change in either direction.

<u>Day</u>	<u>Date</u>	<u>Topic</u>
W	7-Sept	Syllabus, Course Overview.
F	9	Chap. 1, Article review guidelines
M	12	Chap. 24 (Ethics)
W	14	Chap. 2..... <i>Review Article Selection Deadline</i>
F	16	Chap 3, 4
M	19	Chap. 5, Research Overview ..... <i>Article Review (Draft Submission) Due</i>
W	21	<b><u>Article Review Meeting / Research Topic Brainstorming (One-on-One)</u></b>
F	23	<i>Lab Activity-1</i>
M	26	Chap. 5 contd. .... <i>Article Review (Final Submission) Due</i>
W	28	Chap. 6
F	30	Chap. 6 contd., Chap. 8..... <i>Research Project Del 1 Due</i>
M	3-Oct	Case Study-1: Security Breach at TJX (908E03)
W	5	<b><u>Research Project Del 1 Review Meeting (One-on-one)</u></b>
F	7	<i>Lab Activity-2</i>
M	10	Chap. 9, Pre-exam review
W	12	<b>EXAM 1</b>
F	14	Chap. 10
M	17	Case Study-2: IPremier Denial of Service Attack (9609092)
W	19	Chap. 11
F	21	<i>Lab Activity-3</i>
M	24	Chap. 11 contd., Chap. 12..... <i>Research Project Del 2 Due</i>
W	26	Chap. 13
F	28	<b><u>Research Project Del 2 Review Meeting (One-on-one)</u></b>
M	31	Case Study-3: F-Secure... Software as a Service (9809099)
W	2-Nov	<i>Preceptorial Advising - no classes</i>
F	4	<i>Lab Activity-4</i>
M	7	Chap. 13 contd.
W	9	Chap 14
F	11	Chap 15
M	14	<b>EXAM 2</b>
W	16	Chap 15 contd., Chap. 16
F	18	<i>Lab Activity-5.....Research Project Del 3 Due</i>
M	21	Chap. 18
W	23	Chap 18 contd., Chap. 23
	24-27	<b><i>Thanksgiving Holidays</i></b>
M	28	<b><u>Research Project Presentations (Attendance Mandatory)</u></b> ..... <i>Final Research Project Due</i>
W	30	Research Presentation ( <i>Attendance Mandatory</i> )
F	2-Dec	Research Presentation ( <i>Attendance Mandatory</i> )
M	5	Research Presentation ( <i>Attendance Mandatory</i> )
W	7	Research Presentation ( <i>Attendance Mandatory</i> ) , Pre-Exam Review
F	9	<b>Extended Class Schedule- Class does not meet</b>
M	12	<b>FINAL EXAM - 8:30-11:00</b>

*Note: All One-on-one meetings are mandatory.*

*For Article review presentation dates, please refer to the article review guidelines.*

## Classroom Expectations

- **Attendance:** Attend all class meetings promptly. Ask questions during lecture if you do not understand something. Read the chapter before the corresponding lecture. You are responsible for all material covered in class even on days that you are absent. Students are expected to arrive on time and stay until the class is dismissed at end of period. Should situations arise requiring absence from class, late arrival or early departure, students should advise the professor at the earliest time possible. Students are individually responsible for acquiring notes and details about missed classes from their classmates. Late arrivals and early departures should be handled with the least amount of disruption possible. **Class disruption such as talking without permission during a lecture or leaving early without permission will result in a 5 point deduction from student's total points.**
- **PRS Devices:** Please be sure to take your assigned clickers at the beginning of the class and return the device at the end of the class to get credit for the quiz. **While returning, please keep the clickers in proper sequence in the box. Class will be dismissed once the session is over and all clickers are counted by instructor.**
- **Food and Beverages:** Meals and snacks should be consumed before coming to class or after leaving the class, not in the classroom. Anyone bringing food into the classroom should plan on providing enough for the entire class to partake or expect to be asked to leave the room with their food. Beverages will be permitted as long as it does not become problematic. *Gum chewing is strictly prohibited and students will be asked to discard gum or leave the classroom when violations are noted.*
- **Cell Phones, Beepers and other electronic devices:** Be sure to turn off the ringers before you come to class. Tape recorders may not be used, except by special arrangement with the professor. Use of all other electronic devices that emit sounds or require repetitive actions are prohibited during class meetings.
- **Assignments:** You are required to use a computer for all assignments, and all documentation and components are expected to have a neat and professional appearance. College has labs installed with required software for student use. These assignments will be based upon the textbook, lecture material and examples provided in the class. Neatness will be considered as a significant factor. Do the assigned homework problems immediately following coverage of the corresponding material in class. Projects and other specified assignments must be submitted on the due date. Ask questions as needed for help in solving problems in the class or contact your instructor. Failure to turn in required assignments will preclude the possibility of a passing grade.
- **Group Work:** Commitments to other students should be honored when joining study groups or working in teams. This means attending group sessions at the appointed times and dates agreed upon, completing work agreed upon with other group members, and giving full efforts to the group assignments as one would to their individual course requirements.
- **If you encounter or envisage problems, visit or contact your instructor for help and counseling well before due date of submitting an assignment, a test or final exam.**

**Note:** *Emergency notices for class cancellations, additional homework assignments, reminders about special events, internship and/or job opportunities are frequently broadcasted via e-mail and/or posted on Blackboard by the instructor. Students are responsible for knowledge of any information broadcast at least six hours before class and should routinely check their Stockton e-mail account and Blackboard (or forward it to their off-campus e-mail account) before coming to class. Failure to check e-mail / Blackboard will not be accepted as an excuse for failure to complete any assignment.*