IT 4500: Information Security

Spring 2018 Syllabus

This course is an upper-level course in computer related security. Students will review general security concepts and principles such as access control, cryptography, and intrusion detection. At the end of the course, students will be prepared to take the CompTIA Security+ exam if they wish to pursue certification.

Prerequisites: IT3100, CS1400

Course fee: $25, used to assist in maintaining CIT infrastructure.

One section:
- IT4500-01 MWF 8:00-8:50am Smith Computer Ctr 107 – Final exam Fri Apr 27 7am

Instructor:
- Jay Sneddon
  - Office: Burns 234
  - Office hours: MWF 10am, TR 9am

Objectives

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

- Pursue CompTIA Security+ certification (SY0-501)
- Understand the fundamentals of Information Security
- Identify security vulnerabilities in networks, operating systems, and other computer-related environments.
- Explain the legal and ethical aspects of computer security.
- Respond to active and passive security attacks.

Resources

REQUIRED

The readings will come from the course textbook, CompTIA Security+, Get Certified Get Ahead SYO-501 Study Guide by Darril Gibson, ISBN 978-1-939136-05-3. Some supplemental online resources may be used.

Computer Resources

You may use the computers in the Smith Computer Center. There will also be lab assistants to help you.

These computers require a valid CIT username and password. If you do not already have a CIT login, visit https://cit.dixie.edu/facilities/passwd/passwd.php to create one, or ask a lab assistant to help you sign up for one.

Course Information

You are responsible for being informed regarding announcements, the schedule, and other resources posted on this website. Grading and assignments are managed at https://dixie.instructure.com.

Assignments and Exams

Reading

The student is responsible for reading the material in the textbook. A reading schedule is provided with the class schedule on the course website. The student is expected to read the material before the class in which it is discussed. The book also includes material beyond what we will discuss in lecture, which you are encouraged to study on your own. Feel free to bring questions from the reading to lectures or to office hours.

Assignments

Assignments will be graded based on completeness.
(See the Late Work policy for more information)

All assignments for the week are due Sunday night at 11:59pm, unless otherwise noted on Canvas.

**Exams**

This course will have approximately four exams and one comprehensive final exam, along with quizzes sprinkled throughout the semester. Students may opt out of the final exam if they pass the CompTIA Network+ exam before the final exam date. A valid certificate must be shown the instructor.

There will be a final project due the last week before finals, which represents a practical evaluation.

**Grading**

Assignments, quizzes and exams each contribute to your point total. Assignments, Quizzes and the final are worth \( \frac{1}{3} \) of your grade.

Here is the grading scale: 

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\begin{align*}
\geq 94 &= A \\
90 &< \geq 87 = B+ \\
84 &< \geq 80 = B- \\
77 &< \geq 74 = C+ \\
70 &< \geq 67 = C- \\
64 &< \geq 64 = D+ \\
64 &< \leq 60 = D \\
< 60 &= F
\end{align*}
\]

**Course Policies**

**Absences**

Students are responsible for material covered and announcements made in class. School-related absences may be made up only if prior arrangements are made. The class schedule on Canvas presented is approximate. The instructor reserves the right to modify the schedule according to class needs. Changes will be announced in class and posted to the website. Exams and quizzes cannot be made up unless arrangements are made prior to the scheduled time.

**Time**

Courses should require about 2 hours of outside work per lecture hour of class. This class will require about 6 hours of work per week on the part of the student to achieve a passing or higher grade. Be sure to evaluate your schedule before committing to this course.

**Late work**

Assignments are due on the date specified in the schedule. The instructor has the right to reject any late assignments.

**Cheating and Collaboration**

Limited collaboration with other students in the course is permitted and encouraged. Students may seek help learning concepts and developing programming skills from whatever sources they have available, and are encouraged to do so. Collaboration on assignments, however, must be confined to course instructors, lab assistants, and other students in the course. See the section on cheating.

Cheating will not be tolerated, and will result in a failing grade for the students involved as well as possible disciplinary action from the college. Cheating includes, but is not limited to, turning in homework assignments that are not the student’s own work. It is okay to seek help from others and from reference materials, but only if you learn the material. As a general rule, if you cannot delete your assignment, start over, and re-create it successfully without further help, then your homework is not considered your own work.

You are encouraged to work in groups while studying for tests, discussing class lectures, and helping each other identify errors in your homework solutions. If you are unsure if collaboration is appropriate, contact the instructor. Also, note exactly what you did. If your actions are determined to be inappropriate, the response will be much more favorable if you are honest and complete in your disclosure.

Where collaboration is permitted, each student must still create and type in his/her own solution. Any kind of copying and pasting is not okay. If you need help understanding concepts, get it from the instructor or fellow classmates, but never copy another’s written work, either electronically or visually. It is a good idea to wait at least 30 minutes after any discussion to start your independent write-up. This will help you commit what you have learned to long-term memory as well as help to avoid crossing the line to cheating.
Additional college policies, calendars, and statements are available online at http://new.dixie.edu/reg/syllabus/.