IT 4500: Information Security

Spring 2019 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

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

One section:
- IT4500-01 MWF 8:00-8:50am Smith Computer Ctr 108 – Final exam Monday April 29 7am-8:50am

Instructor:
- Jay Sneddon
- Office: Burns 235
- Office hours: MWF 11am-11:50am, TR 8am-8:50am

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 weekly quizzes. Students that pass the CompTIA Security+ exam before the final exam date will automatically receive 100% for the final. A valid certificate must be shown the instructor.

**Security+ Certification**

Security+ Certification is a significant resume enhancer, and is often required for employment at government and other agencies where high security is enforced. Security+ certification is required for this class. Certification is achieved by passing the CompTIA SYO-501 Security+ exam, which may be taken at the DSU Testing Center. CompTIA offers a significant testing discount for students at [http://academic.comptiastore.com/](http://academic.comptiastore.com/)

Students may test out of the class with an A grade if they are able to become Security+ Certified before the third week of the semester. By becoming Security+ Certified you have proven that you know this course material. If you are already Security+ Certified, the certification must be active (meaning passed within the last three years) and I must see a copy of your certificate.

Students that pass the CompTIA Security+ exam before the final exam date will automatically receive 100% for the final.

Contact me if you have any questions about this.

**Grading**

Assignments, quizzes and exams each contribute to your point total.

- **Assignments/Labs = 30%**
- **Quizzes = 10%**
- **Exams = 30%**
- **Comprehensive Final Exam = 20%**
- **CompTIA Security+ Certification (SYO-501) = 10%**

Here is the grading scale: 

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

**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. Late assignments will be accepted but penalized. No work will be accepted after the final exam.

**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.

**College Policies**

Additional college policies, calendars, and statements are available online at [http://new.dixie.edu/reg/syllabus/](http://new.dixie.edu/reg/syllabus/).