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Title: Assistant Professor
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Department Homepage: https://www.daytonastate.edu/dept_directory_ent/index.html

Course Description: Fundamentals of computer security technology, including cryptography, authentication, digital signatures, firewalls, intrusion detection, and network security tools and applications.

Student Learning Outcomes:

1. Demonstrate an understanding of the authentication process by conducting a password audit
2. Demonstrate an understanding of public/private and symmetric cryptography by using public/private key cryptography and digital signatures for private communications
3. Capture network traffic and use network security tools to identify network signatures within a packet capture
4. Demonstrate an understanding of firewalls by developing firewall rules based on a security policy
5. Demonstrate an understanding of intrusion detection systems by creating intrusion detection rules based on a security policy

	SO1	SO2	SO3	SO6
SO1	X	X	X	X
SO2	X	X		X
SO3	X	X	XX	X
SO4	X	XX		X
SO5	X	X		X

Topics

1. Introduction to Security
2. Security Planning
3. Security Management
4. Risk Analysis
5. Password Management, Policy, and Auditing
6. TCP/IP Networking
7. Capturing Network Traffic
8. Traffic Signature Analysis
9. Introduction to Firewalls
10. Implementing Firewalls with IPTables
11. Introduction to Intrusion Detection
12. SNORT
13. Introduction to Cryptography
14. Symmetric Cryptography
15. Asymmetric Cryptography

Class Format: This is a 100% online course. Lectures are provided via recorded video lectures that you play through your browser. Note that we will use two websites for this course, PBworks and Falcon Online, depending on what we are doing.

All lectures and assignments will be located at:

<http://cis4360.pbworks.com/w/page/99246442/Course%20Lectures>

Discussion groups, submitting assignments, midterm and final exams, and course updates will be at:

Falcon Online <https://class.daytonastate.edu/>

Required Textbook(s) and/or Materials: Weaver, Randy, et al. *Guide to network defense and countermeasures*. 3rd ed., Course Technology, Cengage Learning, 2014. ISBN: 9781133727941

Equipment and Supplies: A computer capable of running virtualization software such as VMWare Workstation or VirtualBox and up to two running instances of a Linux virtual machine. If you do not have computer capable of running Linux VMs, there will be computers set up at the Advanced Technology College with VMware installed. You may set up your Linux VMs on these workstations; however, keep in mind these workstations are also open to any other student on campus.

Classroom Policies

Disclaimer: This syllabus has been constructed to be as complete as possible but I reserve the right to alter policies, procedures, and the syllabus as needed with notification to students. Please utilize the website regularly as any changes to the syllabus will be posted there.

How to proceed through the course: Make sure to dedicate enough time to this course. Students should plan to have three hours of study time per week for each credit hour of class time. For example, when taking a typical 3 credit hour course, students should plan to spend at least 9 hours per week doing coursework and studying for that course regardless of the mode of delivery (online, hybrid, face-to-face).

This course is comprised of five assignments and four quizzes. You should watch the lecture videos and follow along inside your VM or with the appropriate software. The key to success in this course is practice; we learn best by doing!

Assignment submissions will close at 7:00 PM on the due date. Technical Support for Falcon Online is available by phone until 8:00 PM during the week so if you experience an issue accessing the course the day the assignment is due, there is a chance for the issue to be resolved before the assignment closes. The assignment boxes will remain open until 11:59 PM the day of the assignment, but assignments submitted after the stated due time and before the closure of the box at 11:59 PM will receive a five (5) point reduction.

Handling of assignments: Assignments will be posted to the PBworks site and an announcement of their availability to Falcon Online. Assignment submission and exam administration will be done through Falcon Online.

Communication: There are several ways you can contact me. If you have a personal question that would only relate to you, you can email through the class email or the email address listed at the top of this page. If you have a class-related question, please post to the Ask the Professor discussion group. Often there are questions that everyone in the class would like answered, so it's best to post to the discussion group so everyone can benefit from the answer.

If you need to contact me via email please put your class number (e.g., CIS4610) into the subject line.

You may also call me directly at the phone number at the top of the syllabus. Again, only use this for personal questions, not class-related questions which should be posted to the "Ask the Professor" discussion group.

I will setup a "General Discussion" group that you can use to post questions, comments, or suggestions to other students. In fact, you can talk about anything you want in this discussion group, except answers to assignments. You can post generally problem-solving strategies or procedures to assist other students, just not specific answers.

Students are not competing for grades, and should be willing to assist each other. In the classroom students have the opportunity to casually chat, as well as, ask for and give mutual assistance. In fact, helping others is a very good way to learn, I highly recommend it.

Microsoft Office 365, with 1TB of OneDrive storage, is available to enrolled Daytona State College students. Students are provided a college email address that serves as the student's official source for college communication. In addition to email, Office 365 provides students with shared calendars, the ability to create and edit documents online, team sites, and other collaboration tools. Whether you work on a PC, Mac, tablet or phone, you will have a consistent experience across all of your devices. The service includes online versions of Word, PowerPoint, Excel, OneNote, and OneNote Class Notebook. For more information about Office 365, visit the Student Self-Service Help page at <http://daytonastate.edu/help/> and click on Office 365 **Find Out More**.

Attendance: There is a short quiz on the syllabus that you must complete by the due date listed on Falcon Online. I will use the participation in this quiz to indicate whether you are currently attending this course. If you do not complete the quiz by the due date, I cannot count you as attending the course, which will result in being automatically dropped from the course; this will likely impact any financial aid you may be receiving.

Late Work/Make-up Work and Exams: The assignment drop box will remain open until 11:59 PM the day the assignment is due. To receive full credit, submit your assignment by the due time given. If an assignment is submitted after the due time, but before the closure of the drop box, five (5) points will be removed from the assignment grade. If you fail to submit an assignment or exam by the due date, a grade of zero will be assigned and you will not be allowed to make up the work unless prior arrangements have been discussed or providing extenuating, documented circumstances which I will handle on a case-by-case basis. These circumstances do not include things like "I forgot" or it's nearing the end of the course and you want a higher grade.

Evaluation/Assessment Methods: I don't like busy work and instead like to focus on quality over quantity. In this course, you will only have five assignments and four short quizzes. Assignments will often set up a scenario such as you are a security contractor contacted by a company to perform an audit of their password policies. You will be evaluated not only on your technical ability, but also your ability to present your findings and actions as meaningful information to both peers – those technically inclined – and those who may be less focused on the technical aspect and more on the results such as management.

Grading Policy: Grades are based on five assignments weighed equally for a combined worth of 80% of the final grade and four quizzes each worth 5% for a total of 20% of the final grade.

Grading Scale:

Percent	Grade
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Incomplete Grades: A grade of "I" will only be given at the end of this course with the professor deems that the student has satisfied EACH of the following:

1. Has completed a minimum of 75% of the course work and made every effort to pass the course which includes having a record of good class attendance;
2. Has provided the instructor with a legitimate and documented reason for not being able to complete the course work by the end of the semester;
3. Has requested in writing from the instructor a grade of "I" prior to the last class period of the semester;
4. Has a mathematical chance to pass the course

A grade of "I" is only intended for students with unforeseeable circumstances which will result in them not being able to complete the course during the current semester.

Class Schedule (Subject to Change):

Topic	Due Date
Attendance	Aug 27
Labor Day Holiday	Sept 2
Assignment 1	Sept 17
Assignment 2	Oct 8
Assignment 3	Oct 29
Quizzes 1 & 2	Nov 1
Assignment 4	Nov 19
Thanksgiving Holiday	Nov 28 – 29
Assignment 5	Dec 3
Quizzes 3 & 4	Dec 6

Class Withdrawal Process: Students can withdraw from this class prior to the date listed in the Academic Calendar. It is not necessary to have approval from the instructor to withdraw from the course, but you should discuss the situation with the instructor prior to any action. Many times issues and concerns can be resolved with communication. Please review the Refund/Repayment Policy in the current college catalog and also check with the Office of Financial Aid to determine how the withdrawal might affect your current and future financial aid eligibility. The steps for withdrawal from a class can be found on the Student Self-Service Help page at <http://daytonastate.edu/help/> under **Enroll/Register for Classes, Drop Classes**.

Attendance

Students who stop attending this class will be withdrawn from the class and receive a final grade of W1 (Withdrawn). Attendance includes participating in online or face-to-face environments as required.

Student Rights & Responsibilities

Students are responsible for reading and following all college policies outlined in the current Student Handbook. Some of the most important are summarized below. The Handbook can be accessed at <http://www.daytonastate.edu/academics.html> under “Student Resources.”

Academic Integrity

In order to preserve academic excellence and integrity, the College expects you to know, understand, and comply with the Academic Integrity Policy, which prohibits academic dishonesty in any form, including, but not limited to, cheating and plagiarism. The grades you earn must be based upon your own work and must accurately reflect your own knowledge and skills.

An instructor who finds that a student has violated Academic Integrity may apply an academic consequence ranging from a zero percent for the assignment, up to and including failure for the entire course. Violations may be reported to the academic department chair for review and/or referred to the student disciplinary process for appropriate disciplinary resolution. For more information about Academic Integrity and the appeal process see: <https://www.daytonastate.edu/academicintegrity/>

Honor Pledge: I, as a member of the DSC community, pledge that I will neither give nor receive unauthorized aid in my work nor will I present another’s work as my own, nor will I tolerate anyone who does. For more information on academic integrity, view the [Honor Code](#).

Forms of Academic Dishonesty

- Academic dishonesty is defined as, but not limited to, receiving or giving unauthorized assistance on a quiz, test, exam, paper or project, or unauthorized use of materials; collaborating with another person(s) without authorization on a quiz, test, exam, paper or project; taking a quiz, test or exam for someone else, or allowing someone else to do the same for you.
- Cheating: Defined as receiving or giving unauthorized assistance on a quiz, test, exam, paper or project or unauthorized use of materials to complete such; collaborating with another person(s) without authorization on a quiz, test, exam, paper or project; or taking a quiz, test or exam for someone else or allowing someone else to do the same for you.
- Plagiarism: Submitting work in which words, facts or ideas from another source are used without acknowledging that the material is borrowed, whether from a published or unpublished source. For specific instructions on how to document information from other sources, students should check with their instructors, academic departments or the Student Academic Support Center for reference.
- Self-plagiarism: When students think of plagiarism, they often describe it as “borrowing” another writer’s ideas or words without giving proper credit. In fact, according to popular definitions, these students would be correct. However, recently the idea that students can plagiarize themselves has surfaced. When students turn in the same assignment for two different classes, they are self-plagiarizing. This rule also applies to sections of an assignment. Not only does “repurposing” assignments deny students the opportunity to learn, but also it is not fair according to the college’s standards. Turning in the same assignment for two separate classes means receiving credit TWICE for a single effort. Because of this, self-plagiarism is coined “double-dipping,” which

leads to a devaluation of grades and therefore, a devaluation of the college. Daytona State College prohibits self-plagiarism.

- **Fabrication:** Listing sources in a bibliography that one did not actually use in a written assignment, or presenting false, invented or fictitious data/information in a written assignment.

If I find you sharing questions or answers with another student, you will receive a 0 for the course, and I will forward all documentation to the DSC administration.

Support Services

Students with Disabilities: The Student Disability Services (SDS) Office provides tools and resources to students with documented disabilities. Students who self-disclose a disability and provide the required documentation to the SDS Office can receive confidential and reasonable accommodations to assist in their academic success. If you need accommodations, please contact the SDS Office at (386) 506-3238. To call Florida Relay dial 7-1-1, or the appropriate toll-free number: 1-800-955-8771 (TTY), 1-800-955-8770 (Voice). You can also find more information at <http://www.daytonastate.edu/sds>

Veterans: If you are currently serving or have ever served in the U.S. Military, please feel free to visit the Veterans Center in the Lenholt Student Center (Bldg. 130, room 124) for any assistance or phone 386.506.3065. Please visit <https://www.daytonastate.edu/admsvet/>

Academic Support Center: The Academic Support Centers (ASC) assist students on every campus to achieve their potential by providing the resources they need to become successful, independent learners. For more information please go to <http://www.daytonastate.edu/asc/> or email ASC@DaytonaState.edu.

Writing Center: For assistance with all stages of the writing process please visit the Writing Center (appointments recommended) www.daytonastate.edu/cwc

Library and Research Services: The Daytona State Library offers a variety of services and resources to support your academic success. Visit the library website at <http://library.daytonastate.edu/>

Technical Support is available for FalconMail, printing, web usage, Falcon Online, and more. Students may call 386-506-3950 or e-mail Helpdesk@daytonastate.edu. Information can be found on the Student Self-Service Help page at <http://daytonastate.edu/help/> under Tech Support.

For Falcon Online 24/7 support of course tools, view the Help/Resources on the Falcon Online navbar or call the Helpdesk at 386-506-3950, option 2. General Help information for Falcon Online can be found on the Student Self-Service Help page at <http://daytonastate.edu/help/> under Falcon Online Technical Help.

Safety on Campus: Check your FalconMail after you register for information on accessing and updating your free Daytona State College Rave Alert account. You can also visit <https://www.getrave.com/login/daytonastate>

The Center for Men and Women: The Center offers a range of additional support services for students in need. Go to <https://daytonastate.edu/centerforwomenandmen/index.html> for more information.