

Point Loma Nazarene University
Syllabus: ISS4012392 Topics in Information Security (2 units)
Mathematical, Information and Computer Sciences
Fall 2019

Time and Place: M 5:30-7:15 PM Rohr Science 265

Instructors: Prof. Darren Bennett
Prof. Macy Dennis
Dr. Maria Zack

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Office Location: Rohr Science 222

Office Hours:

Prof. Bennett Before or after class, by appointment

Prof. Dennis Before or after class, by appointment

Dr. Zack (Rohr Science 246)

Monday 7:30-8:30 a.m.

Tuesday By appointment

Wednesday 8:00-9:00 a.m.

Thursday 12:00-12:30 p.m.

Friday 7:30-9:00 am and 3:30-4:30 p.m.

Catalog Descriptions:

ISS 4012 - Topics in Information Security (2)

Study of an area of information security otherwise included in the curriculum. Topics are determined by the needs and interest of the students and faculty involved. May be repeated up to a total of four (4) units.

Prerequisite(s): CSC 3014 or consent of instructor.

Learning Outcomes:

This experience is designed to help you develop your abilities in the follow department learning outcome areas.

- Students will be able to apply their technical knowledge to solve problems.
- Students will be able to speak about their work with precision, clarity and organization.
- Students will be able to write about their work with precision, clarity and organization.
- Students will collaborate effectively in teams.
- Students will be able to gather relevant information, examine information and form a conclusion based on that information.

Text Book:

This course does not have a textbook, however, you will be expected to read a limited number of articles, websites and/or book chapters related to the topics discussed in class.

Grading:

Grades are based on the total number of points accumulated throughout the course. The points for each activity are:

Homework	500
Group Tool Presentation	100
Project Check-Points	150
Final Project	250
Total Points	1000

Approximate minimal points required to obtain a given grade are:

	A	B	C	D
+		(875, 900)	(775, 800)	(675, 700)
	[925, 1000]	[825, 875]	[725, 775]	[625, 675]
-	[900, 925)	[800, 825)	[700, 725)	[600, 625)

Note that scores of 599 or lower will result in an F.

Homework:

Homework will be assigned each day at the end of class. All homework assigned in a week will be **due in class** the next Wednesday. No late homework will be accepted except by prior arrangement or with a documented emergency. Homework assignments are posted in Canvas. The object of the homework is to learn how to do the problems so work carefully on each assignment. Note that some assignments will be turned in via Canvas.

Project Check-Points:

You will work in a team of 3-4 to complete a final project. To make sure that your team is on track, there are a number of project check points (see the calendar).

Final Project:

Your final project will relate to analyzing a particular type of cyber security attack and presenting a 20-25 minute presentation on that attack. Every member of your group will be expected to speak and each member will be asked a question about the project. So be sure that you share the work equally and that all members understand the details. We will also be using the Team Rubric to assess participation along the way. Your presentation will be given the night of the final exam, **MONDAY DECEMBER 16, 7:30-10:00 P.M.**

Final Exam: Date and Time:

The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. This schedule can be found on the university website and in the course calendar. Because your final exam is a group project, no requests for early examinations will be approved. Only in the case that a student is required to take three exams during the same day of finals week, is an instructor authorized to consider changing the exam date and time for that particular student, however because this is a group project, it will be very difficult to make any changes.

University Mission:

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Department Mission:

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

Credit Hours/Required Hours and Academic Units

In the interest of providing sufficient time to accomplish the stated course learning outcomes, this class meets the PLNU credit hour policy for a 2-unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirements can be provided upon request.

Attendance:

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See the 2019-2020 PLNU Undergraduate Academic Catalog for details.

Class Enrollment:

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

Academic Accommodations:

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

Academic Honesty:

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See the PLNU 2019-2020 Undergraduate Academic Catalog for definitions of kinds of academic dishonesty and for further policy information.

Copyright Protected Materials:

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Course Schedule

Date	Topic
Sept 9	Security Basics Virtualization Set-up
Sept 16	Security Threats
Sept 23	Attacks and Insider Threats Guest: John Caruthers (FBI Supervisory Agent)
Sept 30	Security Awareness
Oct 7	Hacking and Hacking Tools
Oct 14	Student Presentations on Hacking Tools
Oct 21	TBD
Oct 28	Network Traffic Analysis <i>Check-Point: Final Project Reference List Due</i>
Nov 4	IOT and the Cloud
Nov 11	Security Metrics, Compliance and Risk Guest: Heath Nieddu (IT Strategist EVOTEK)
Nov 18	Incident Response and Forensics <i>Check-Point: Annotated Outline of Final Project Report Due</i>
Nov 25	Discuss Project Outlines (appointments with faculty) Seeking Cyber Security Jobs
Dec 2	Cyber Threat Intelligence (CTI) Guest: Paul Keener (Director, SOC and Red Team at Viasat)
Dec 9	Malware Reversing/finding Indicators of Compromise (IOC) Guest: Kevin Langley (Security Architect EVOTEK) <i>Check-Point: Final Report Draft Slide Deck Due</i>
Dec 16	Final Exam 7:30-10:00 PM – Final Presentations Given