Course Syllabus

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Point Loma Nazarene University

CIT 3031 Security+ Exam Prep

Summer 2024 – Online (1 Credit Hour)

Time and Place: Online and anytime

Instructor: Maria Zack, Ph.D.

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Office Hours: Online / Anytime

Students are welcome to contact me via e-mail and schedule an appointment whenever I am available. Appointments can be face-to-face in my office, on the phone, or via a video conference call.

Text: Text is included as an electronic copy in the course.

If students would prefer a written copy of the textbook, they may purchase one at their own expense.

> CompTIA Security+ Study Guide: Exam SY0-601, 8th Edition
> Mike Chapple, David Seidl
> Publisher: Wiley
> ISBN: 978-1-119-73625-7

Needed Supplies:

Students will need access to a computer and a high-speed internet connection.

Course Description:

CIT 3031 is an independent study, self-paced, competency-based course designed for students who wish to prepare for the CompTIA's Security+ certification exam. The course is intended for students who have already completed the CIT 3024 – Security course or equivalent security education. Students will be required to complete pre-assessment exams to determine which (if any) knowledge domains require review. Students will then review any required knowledge domains to prepare for the practice exams. Students will then take a series of practice tests, review deficient content areas, and retake until all practice tests have been passed with an 80 or better. **A minimum score of 80 on all practice exams is required to pass the course if a passing score on the certification exam is not achieved.** A faculty advisor provides support and accountability in completing the course requirements. Although the course is self-paced, a minimum amount of progress must be made each week, and all course requirements must be completed within the assigned course time. Attempting the certification exam within the assigned course time is also required. Although passing the certification exam is not required to pass this course, the results of the certification exam will be used to determine the final grade in the course. Students already holding a current certification for this course are not eligible to take this course.

Philosophy and Approach:

Self-paced competency-based courses are designed to allow students to move through course material as quickly as they like while demonstrating a minimum level of competency on a given topic before they are permitted to move forward in the course. The course is divided into practice exams and other learning activities to help prepare students in the knowledge areas for the certification exams.

Although this is a self-paced course, students must complete at least one (1) review of knowledge area or practice exam per week. Students must also complete all certification practice exams by the end of Week 13 and attempt the Security+ certification exam by the end of Week 14. Once students attempt the Security+ certification exams, no additional work in the course is required. However, if the student did not pass the certification exam on their first attempt, they can continue to study and retake the exam to improve their grade in the course until the end of Week 15. Points will be deducted from the student's overall grade if minimum progress is not made each week or given activity deadlines are not met. However, students are encouraged to move as quickly as possible and complete all course requirements before the 15-week time limit.

Objectives:

The course is designed to help you:

- Acquire and reinforce knowledge and develop an understanding of the knowledge domains associated with the CompTIA Security+ certification exams.
- Prepare for and take the CompTIA Security+ certification exams.

Course Learning Outcomes

1. Students will be able to identify risk
2. Students will be able to participate in risk mitigation activities
3. Provide infrastructure, application, information and operational security
4. Apply security controls to maintain confidentiality, integrity and availability
5. Identify appropriate technologies and products
6. Troubleshoot security events and incidents
7. Operate with an awareness of applicable policies, laws and regulation

Program Learning Outcomes:

Graduates will have a coherent and broad-based knowledge of the discipline of Computer Information Technology.

1. Students will be able to identify and evaluate information technology infrastructure necessary to meet an organization's business needs.
2. Students will be able to develop, plan and evaluate appropriate processes for managing information systems and information technology projects.
3. Students will be able to design, develop, and evaluate software solutions to meet an organization's business needs.
4. Students will be able to apply their technical knowledge to solve problems.
5. Students will be able to speak about their work with precision, clarity and organization (Oral Communication).
6. Students will be able to write about their work with precision, clarity and organization (Written Communication).
7. Students will collaborate effectively in teams.
8. Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand (Information Literacy).
9. Students will be able to gather relevant information, examine information and form a conclusion based on that information (Critical Thinking).
10. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in various formats (Quantitative Reasoning).
11. Students will understand the professional, ethical, legal, security and social issues and responsibilities with the implementation and use of information technology.
12. Computer Information Technology graduates will be adequately prepared for entry into graduate school or jobs in the computing profession.

Grading:

Students must earn 450 points on the certification exam and have no more than 60 points missing for late work from the final course points to earn 60% in the course to pass the course with a "D-".

Your grade for the course is based on the points earned by the following criteria at the end of the course:

- Exam score of 750 or more and the exam – 1000 points (100% or "A")
- Exam score between 650 and 749 and practice exams complete with 80+ - 860 points (86% or "B")
- Exam score between 550 and 649 and practice exams complete with 80+ - 760 points (76% or "C")
- Exam score between 450 and 549 and practice exams complete with 80+ - 660 points (66% or "D")
- Exam score below 450 or all quizzes and exams not complete with 80+ - zero points (0% or "F")

Grading Scale:

The grading scale for the course, in percentages of the maximum points in class is:

A	92.50 - 100%	**C**	72.50 - 77.49%
A-	90.00 - 92.49%	**C-**	70.00 - 72.49%
B+	87.50 - 89.99%	**D+**	67.50 - 69.99%
B	82.50 - 87.49%	**D**	62.50 - 66.49%
B-	80.00 - 82.49%	**D-**	60.00 - 62.49%
C+	77.50 - 79.99%	**F**	0 - 59.99%

Note: 25 points will be deducted from a student's overall point total for each due date that is missed for assessment exams or practice exams. 10 points per day will be deducted from a student's overall point total for late exam appointment confirmation and late exam results submitted.

Late Work Policy

There is a point deduction penalty for assignments not completed by their respective due dates. Practice exams and the post-assessment exam must be passed with a score of 80% or more before

their due dates.

Credit Hour:

In the interest of providing sufficient time to accomplish the stated course learning outcomes, this class meets the PLNU credit hour policy for a 1-unit class delivered over 15 weeks. It is anticipated that you will spend a minimum of 37.5 participation hours per credit hour in your course. The estimated time expectations for this course are shown below:

Knowledge Domain Review	20
Practice Exams	12
Certification Exams	6
TOTAL	**38**

Tests and Learning Activities:

All chapter tests, practice exams and learning activities can be redone as often as needed to achieve the desired score.

Final Exam: Date and Time:

The final in the course is the CompTIA Security+ certification exam and can be taken any time before its due dates. All students are required to attempt the certification exam at least once before the end of week 15. The cost of the first attempt on the exam is included as part of this course. Students may retake the certification exam if they do not pass on their first attempt but must purchase their own vouchers for any subsequent attempts.

Technical Support:

Please contact IT Services (ITS) at 619-849-2222 for technical support if your account gets locked out or you need a password reset. If you call after hours (between 6 pm and 11 pm), and the matter is urgent,

you may leave a voice mail message and mark the message as urgent. The on-call technician will respond to you within 30 minutes.

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 becomes an expression of faith. Being of Wesleyan heritage, we aspire 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.

Attendance:

Attendance is expected each week.

Regular activity each week is considered essential to optimum academic achievement. Because this course is a self-paced online course, attendance will be determined by completing assignments in a given week. To get credit for being "present" in the online portion of the class, you must complete the online activities by the respective due dates. If the student does not complete more than 10 percent of class assignments by their due dates, the faculty member can file a written report, which may result in de-enrollment. If the missing assignments 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 Academic Policies in the Graduate and Professional Studies Catalog for additional details.

For example, In a one-unit, 16-week self-paced online course, a student may be de-enrolled for not completing assignments for two or more consecutive weeks or more than three weeks total.

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:

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to ensure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC.

Students wishing to receive accommodations for the official CompTIA certification exam, must contact CompTIA and request the accommodation themselves through PersonVue at **https://home.pearsonvue.com/test-taker/Test-accommodations.aspx.** ⤷ **(https://home.pearsonvue.com/test-taker/Test-accommodations.aspx)** This process can take several weeks so students must begin the process early to seek an accommodation. The university can not assist in the CompTIA accommodation request, it is the student's responsibility to apply directly with PersonVue and to provide the required paperwork.

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 Academic Policies in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

Etiquette and Behavior:

Students are expected to actively and positively engage in the adult learning environment. Behaviors that disrupt the classroom environment and interfere with the learning of others are prohibited. Examples of disruptive behavior include talking with other students during a presentation or when others are speaking, texting, gaming, internet browsing, or reading non-course related materials. All cell phones and other electronic communication devices will be turned off at the beginning of class. Tablets and computers are allowed in class for note-taking purposes only, unless otherwise directed by the instructor. Should a student's behavior become disruptive to the productivity of the course they will be asked to leave the classroom and not receive credit for attendance.

In the online environment, students are expected to also be actively and positively engaged in an adult learning environment and consider the complexities of engaging in discussions in an online environment. Disagreeing with each other and engaging in debates about ideas is encouraged to better understand each other's ideas and perspectives. Such discussions should never involve personal comments, offensive or inappropriate language, or either aggressive or passive aggressive verbiage.

Students who wish to share feedback about the course, program, PLNU, or any administration, faculty, or staff should not do so within course discussions, assignments, or projects and should meet one-on-one with the professor or program director. A classroom or an online learning environment is not the proper place to discuss feedback about the university or any university representatives.

Persons not enrolled in the course are not permitted to be present in class. This policy includes family/friends of students and potential students.

When working with PLNU staff, faculty and administrators, and other students, students are expected to communicate and act respectfully. Any aggression or disrespect to any party may result in up to and including suspension from PLNU. See Academic Behavior Policy in the Graduate and Professional Studies Catalog for definitions of behaviors and further policy information.

E-mail and Messages:

It is expected that students regularly use e-mail. The instructor will periodically send you information and updates via e-mail and/or via canvas. In the first week of class you must activate your PLNU e-mail account if you are not currently using it. Please send questions about specific problems or course details to the instructor by posting them in Canvas so that all members of the class can see the response.

State Authorization:

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another

state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on **State Authorization (https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures)** to view which states allow online (distance education) outside of California.

PLNU Copyright Policy

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

Use of Technology

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements, which include a working computer with the Chrome browser and a stable internet connection. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams requires a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

Some Tips About This Class:

- Set aside at least one to two hours each week to complete learning sessions.
- Quizzes and assignments can be redone as many times as you like. Maximize your points by redoing assignments that do not receive full credit.
- If you have a question, *ASK*.

Recommended Class Schedule:

Week 1	Take the pre-assessment exam before the due date.

Weeks 2-3	Review lessons indicated on the pre-assessment that need review. Take chapter quizzes, complete chapter labs and review chapter flash cards.
Week 4	Take Practice A and earn a score better than 80% before the due date.
Weeks 5-6	Review lessons indicated on your first attempt of Practice A exam. Take chapter quizzes, complete chapter labs and review chapter flash cards.
Week 7	Take Practice B and earn a score better than 80% before the due date.
Weeks 8-9	Review lessons indicated on your first attempt of Practice B exam. Take chapter quizzes, complete chapter labs and review chapter flash cards.
Week 10	Take Practice C and earn a score better than 80% before the due date.
Week 11	Review lessons indicated on your first attempt of Practice C exam. Take chapter quizzes, complete chapter labs and review chapter flash cards.
Week 12	Take Post Assessment Exam and earn a score better than 80% before the due date. Request Exam Voucher, register for Security+ exam and post exam appointment confirmation.
Week 13	Complete any review needed for Security+ exam.
Week 14	Take the Security+ Certification exam and post exam results by due date.
Week 15	Retake certification exam(s) if needed

Course Summary:

Date	Details	Due
Sun May 12, 2024	📝 **Pre-Assessment Exam** (https://canvas.pointloma.edu/courses/75462/assignments/1035784)	due by 11:59pm
Sun Jun 2, 2024	📝 **Practice Exam A**	due by 11:59pm

Date	Details	Due
	[(https://canvas.pointloma.edu/courses/75462/assignments/1035782)](https://canvas.pointloma.edu/courses/75462/assignments/1035782)	
Sun Jun 23, 2024	📝 **Practice Exam B** [(https://canvas.pointloma.edu/courses/75462/assignments/1035783)](https://canvas.pointloma.edu/courses/75462/assignments/1035783)	due by 11:59pm
Sun Jul 14, 2024	📝 **Practice C Grade** [(https://canvas.pointloma.edu/courses/75462/assignments/1035781)](https://canvas.pointloma.edu/courses/75462/assignments/1035781)	due by 11:59pm
Sun Jul 28, 2024	📝 **Post Assessment Exam** [(https://canvas.pointloma.edu/courses/75462/assignments/1035780)](https://canvas.pointloma.edu/courses/75462/assignments/1035780)	due by 11:59pm
Tue Jul 30, 2024	📝 **Security+ SY0-701 Exam Appointment Confirmation** [(https://canvas.pointloma.edu/courses/75462/assignments/1035785)](https://canvas.pointloma.edu/courses/75462/assignments/1035785)	due by 11:59pm
Sun Aug 18, 2024	📝 **Exam Results** [(https://canvas.pointloma.edu/courses/75462/assignments/1035761)](https://canvas.pointloma.edu/courses/75462/assignments/1035761)	due by 11:59pm
	📝 **Official Course Evaluation** [(https://canvas.pointloma.edu/courses/75462/assignments/1035779)](https://canvas.pointloma.edu/courses/75462/assignments/1035779)	due by 11:59pm
	📝 **Course Points** [(https://canvas.pointloma.edu/courses/75462/assignments/1035760)](https://canvas.pointloma.edu/courses/75462/assignments/1035760)	
	📝 **Lesson 1. Today's Security Professional** [(https://canvas.pointloma.edu/courses/75462/assignments/1035762)](https://canvas.pointloma.edu/courses/75462/assignments/1035762)	
	📝 **Lesson 10. Cloud and Virtualization Security** [(https://canvas.pointloma.edu/courses/75462/assignments/1035763)](https://canvas.pointloma.edu/courses/75462/assignments/1035763)	
	📝 **Lesson 11. Endpoint Security** [(https://canvas.pointloma.edu/courses/75462/assignments/1035764)](https://canvas.pointloma.edu/courses/75462/assignments/1035764)	
	📝 **Lesson 12. Network Security** [(https://canvas.pointloma.edu/courses/75462/assignments/1035765)](https://canvas.pointloma.edu/courses/75462/assignments/1035765)	
	📝 **Lesson 13. Wireless and Mobile Security** [(https://canvas.pointloma.edu/courses/75462/assignments/1035766)](https://canvas.pointloma.edu/courses/75462/assignments/1035766)	

Date	Details	Due

📝 **Lesson 14. Monitoring and Incident Response** [(https://canvas.pointloma.edu/courses/75462/assignments/1035767)](https://canvas.pointloma.edu/courses/75462/assignments/1035767)

📝 **Lesson 15. Digital Forensics** [(https://canvas.pointloma.edu/courses/75462/assignments/1035768)](https://canvas.pointloma.edu/courses/75462/assignments/1035768)

📝 **Lesson 16. Security Governance and Compliance** [(https://canvas.pointloma.edu/courses/75462/assignments/1035769)](https://canvas.pointloma.edu/courses/75462/assignments/1035769)

📝 **Lesson 17. Risk Management and Privacy** [(https://canvas.pointloma.edu/courses/75462/assignments/1035770)](https://canvas.pointloma.edu/courses/75462/assignments/1035770)

📝 **Lesson 2. Cybersecurity Threat Landscape** [(https://canvas.pointloma.edu/courses/75462/assignments/1035771)](https://canvas.pointloma.edu/courses/75462/assignments/1035771)

📝 **Lesson 3. Malicious Code** [(https://canvas.pointloma.edu/courses/75462/assignments/1035772)](https://canvas.pointloma.edu/courses/75462/assignments/1035772)

📝 **Lesson 4. Social Engineering, Physical, and Password Attacks** [(https://canvas.pointloma.edu/courses/75462/assignments/1035773)](https://canvas.pointloma.edu/courses/75462/assignments/1035773)

📝 **Lesson 5. Security Assessment and Testing** [(https://canvas.pointloma.edu/courses/75462/assignments/1035774)](https://canvas.pointloma.edu/courses/75462/assignments/1035774)

📝 **Lesson 6. Application Security** [(https://canvas.pointloma.edu/courses/75462/assignments/1035775)](https://canvas.pointloma.edu/courses/75462/assignments/1035775)

📝 **Lesson 7.Cryptography and the PKI** [(https://canvas.pointloma.edu/courses/75462/assignments/1035776)](https://canvas.pointloma.edu/courses/75462/assignments/1035776)

📝 **Lesson 8. Identity and Access Management** [(https://canvas.pointloma.edu/courses/75462/assignments/1035777)](https://canvas.pointloma.edu/courses/75462/assignments/1035777)

📝 **Lesson 9. Resilience and Physical Security**

Date	Details	Due
	(https://canvas.pointloma.edu/courses/75462/assignments/1035778)	
	(https://canvas.pointloma.edu/courses/75462/assignments/1035778)	