

**Point Loma Nazarene University**  
**Mathematical, Information and Computer Sciences**  
**School of STEM**  
**CSC 3112 Network+ Exam Prep**  
**Spring 2026 – Online (2 Credit Hours)**

**Time and Place:** Online and anytime

**Instructor:** Maria Zack, Ph.D.

[mzack@pointloma.edu](mailto:mzack@pointloma.edu)

**Office Hours:**

Below are the times that I work to hold open for office hours. If none of them work you can email me to see if we can find another time. I offer both in person (office RS246) and Google Meet options for office hours . [Use this link](#) [Links to an external site.](#) [Links to an external site.](#) to book an appointment if you want a time reserved for you or if you want to use Google Meet. You can also just stop by my office.

Monday 1:00-2:00 PM

Tuesday 8:00-9:00 AM and 2:00-3:00 PM

Wednesday 9:00-10:00 AM and 5:00-6:00 PM

Thursday by appointment only

Friday 1:00-3:00 PM

**PLNU Mission**

**To Teach ~ To Shape ~ To Send**

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.

## COURSE DESCRIPTION

CSC 3112 Network+ Exam Preparation (1-2 Units)

This is an independent study course designed for students who wish to prepare for the CompTIA's Network+ certification exam. The course is intended for students who have already completed at least one course in computer networking.

Prerequisite(s): Consent of instructor.

**Text:** Text is included as an electronic copy in course. **You need to purchase access to the textbook. Please look at the modules for the information about how to purchase access from uCertify.**

### Needed Supplies:

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

### Detailed Course Information:

CSC3112 is an independent study, self-paced, competency based course designed for students who wish to prepare for the CompTIA's Network+ certification exam. The course is intended for students who have already completed a Networking course covering the foundational elements of computer networking concepts. Students will be required to first work through each of the study guides lessons and then 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 test have been passed with an 80 or better. **A minimum score of 80 on all chapter quizzes and practice exams are 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 requirements of the course. 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 on 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 Network+ certification exam by the end of Week 14. Once students attempt the Network+ 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 they are able and complete all course requirements prior to the 15-week time limit.

## **Objectives:**

The course is designed to help you:

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

## **Course Learning Outcomes**

1. Students will be able to explain basic networking concepts and the OSI networking model and how it relates to the TCP/IP networking stack.
2. Students will be able to determine network names, broadcast addresses, subnet masks and host address ranges given a network address and subnet value.
3. Students will be able to determine the routing path and method of information as it passes through an IP network.
4. Students will be able to program router and switch information to create an IP based LAN/WAN.
5. Students will be able explain network security risk and be able to analyze and determine appropriate network risk mitigation techniques.
6. Students will be able to utilize network troubleshooting techniques to solve common communication problems.

## Grading:

Your grade for the course is based on the points earned by the following criteria at the end of the course less deductions (see Late Work Policy below):

- Exam score of 720 or more and the exam – 1000 points (100% or "A")
- Exam score between 620 and 719 and practice exams complete with 80+ - 860 points (86% or "B")
- Exam score between 520 and 619 and practice exams complete with 80+ - 760 points (76% or "C")
- Exam score between 420 and 519 and practice exams complete with 80+ - 660 points (66% or "D")
- Exam score below 420 or all quizzes and exams not complete with 80+ - zero points (0% or "F")

The grading scale for the course is based on a percentage of points available:

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

## Late Work Policy

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

**Note: 10 points will be deducted for a student's overall point total for each chapter quiz completed late and 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 point per day**

will be deducted from a student's overall point total for late exam appointment confirmation and late exam results submitted.

**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 2-units 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:

Table of Course Hour Allocation

<b>Activity</b>	<b>Hours</b>
Chapter Review	36
Knowledge Domain Review	21
Practice Exams	12
Certification Exams	6
<b>TOTAL</b>	<b>75</b>

**Tests and Learning Activities:**

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

**Helpful Tool for Studying:**

This class guides you through the CompTIA exam preparation material and that should be your focus. The [Professor Messer videos](#) provide a nice supplement and can be helpful as you are in your last few weeks of the course and getting ready for the exam.

## **Final Exam: Date and Time:**

The PLNU Final exam policy states: Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the [Traditional Undergraduate Records: Final Exam Schedules](#) site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

However, you have flexibility about when you take your final exam in this class which allows you to avoid the possibility of having three final exams in a single day. The *final in the course is the CompTIA Network+ certification exam* and can be taken any time before its due date. All students are required to attempt the certification exam at least once before the end of week 15. Students may retake the certification exam if they do not pass on their first attempt, as long as the attempt is completed by the end of finals week.

## **INCOMPLETES AND LATE ASSIGNMENTS**

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

## **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.

## **PLNU ACADEMIC ACCOMMODATIONS POLICY**

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center ([EAC@pointloma.edu](mailto:EAC@pointloma.edu) or 619-849-2533). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. Professors are able to view a student's approved accommodations through Accommodate.

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. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

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 assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any accommodations.

### **ARTIFICIAL INTELLIGENCE (AI) POLICY**

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) in creating written work for this class is not permitted, and use of these tools will be treated as plagiarism.

### **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**.

**The list of assignment deadlines is listed below.**

### **Additional Course Information**

Additional PLNU policies and practices that apply to this course can be found [hereLinks to an external site.](#)

## **Course Summary:**

### Course Summary

<b>Date</b>	<b>Details</b>	<b>Due</b>
<b>Wed Jan 14, 2026</b>	Page <a href="#">Purchase uCertify Access Code</a>	to do: 11:59pm

## Course Summary

Date	Details	Due
	Page <a href="#">Register with CompTIA</a>	to do: 11:59pm
	Assignment <a href="#">Lesson 1: Introduction to Networks</a>	due by 11:59pm
<b>Sun Jan 18, 2026</b>	Assignment <a href="#">Lesson 2: The Open Systems Interconnection (OSI) Reference Model</a>	due by 11:59pm
	Assignment <a href="#">Lesson 3: Networking Connectors and Wiring Standards</a>	due by 11:59pm
	Assignment <a href="#">Lesson 4: The Current Ethernet Specifications</a>	due by 11:59pm
<b>Sun Jan 25, 2026</b>	Assignment <a href="#">Lesson 5: Networking Devices</a>	due by 11:59pm
	Assignment <a href="#">Lesson 6: Introduction to the Internet Protocol</a>	due by 11:59pm
<b>Sun Feb 1, 2026</b>	Assignment <a href="#">Lesson 7: IP Addressing</a>	due by 11:59pm
	Assignment <a href="#">Lesson 8: IP Subnetting, Troubleshooting IP, and Introduction to NAT</a>	due by 11:59pm
	Assignment <a href="#">Lesson 10: Routing Protocols</a>	due by 11:59pm
<b>Sun Feb 8, 2026</b>	Assignment <a href="#">Lesson 11: Switching and Virtual LANs</a>	due by 11:59pm
	Assignment <a href="#">Lesson 9: Introduction to IP Routing</a>	due by 11:59pm

## Course Summary

Date	Details	Due
<b>Sun Feb 15, 2026</b>	Assignment <a href="#">Lesson 13: Remote Network Access</a>	due by 11:59pm
	Assignment <a href="#">Lesson 12: Wireless Networking</a>	due by 11:59pm
	Assignment <a href="#">Lesson 14: Using Statistics and Sensors to Ensure Network Availability</a>	due by 11:59pm
<b>Sun Feb 22, 2026</b>	Assignment <a href="#">Lesson 15: Organizational Documents and Policies</a>	due by 11:59pm
	Assignment <a href="#">Lesson 16: High Availability and Disaster Recovery</a>	due by 11:59pm
<b>Sun Mar 1, 2026</b>	Assignment <a href="#">Lesson 17: Data Center Architecture and Cloud Concepts</a>	due by 11:59pm
	Assignment <a href="#">Lesson 18: Network Troubleshooting Methodology</a>	due by 11:59pm
	Assignment <a href="#">Lesson 19: Network Software Tools and Commands</a>	due by 11:59pm
<b>Sun Mar 8, 2026</b>	Assignment <a href="#">Lesson 20: Network Security Concepts</a>	due by 11:59pm
	Assignment <a href="#">Lesson 21: Common Types of Attacks</a>	due by 11:59pm
<b>Sun Mar 22, 2026</b>	Assignment <a href="#">Pre-Assessment Exam</a>	due by 11:59pm
<b>Sun Mar 29, 2026</b>	Assignment <a href="#">Practice Exam A</a>	due by 11:59pm

## Course Summary

<b>Date</b>	<b>Details</b>	<b>Due</b>
	Assignment <a href="#">Practice Exam B</a>	due by 11:59pm
<b>Sun Apr 5, 2026</b>	Page <a href="#">Exam Instructions</a>	to do: 11:59pm
	Page <a href="#">Professor Messer Videos</a>	to do: 11:59pm
<b>Sun Apr 12, 2026</b>	Assignment <a href="#">Post Assesment Exam</a>	due by 11:59pm
<b>Tue Apr 14, 2026</b>	Assignment <a href="#">Exam Appointment Confirmation</a>	due by 11:59pm
<b>Sun May 3, 2026</b>	Assignment <a href="#">Exam Results</a>	due by 11:59pm