Course Syllabus

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POINT 1902 LOMA
NAZARENE UNIVERSITY

School of STEM

CIT3014 Networking

Fall 2026 - Hybrid (4 Credit Hours)

Quad 2

Time and Place:	Wednesday Evenings 6:00 pm – 10:00 pm
	Grossmont Community College Campus - Room 36-127
Final Exam	Dec. 16. 9:00 pm
Instructor:	Cynthia Hernandez
Email:	chernan1@pointloma.edu
Office Hours:	By Appointment

Students are welcome to contact me via email to schedule an appointment for a mutually convenient time. Appointments can be face-to-face on the Grossmont Campus, 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 Network+ Study Guide: Exam N10-009, 6th Edition
Author: Todd Lammle
Publisher: Wiley Sybex
ISBN: 978-1-394-23560-5

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Needed Supplies:

Access to a computer (with Windows OS) with at least a 2.0 GHz four-core processor, 6GB of RAM, 100GB of available storage, and the ability to add software, a high-speed internet connection, Microsoft Word and Excel, and an Image editor (Microsoft paint or mac image viewer).

Content:

The CIT3014 course is designed to provide an in-depth understanding of a wide range of network architectures and configuration options. The course explores the concepts of physical and virtual network design options and network administration requirements. The course will cover the topics of wired and wireless networking, network optimization and management, virtual local area networks, network types, network hardware and software, and networking standards. In addition, students will acquire hands-on experience by working with networking and security simulators. This course aligns with topics covered in the CompTIA's Network+ certification exam.

Philosophy and Approach:

Research in learning theory shows that students who learn technology effectively must be actively involved in the process, not just passive listeners/observers. In particular, in order to really learn and understand technological ideas and concepts, one must become deeply involved in activities such as exploring, discussing, analyzing, explaining, testing, and evaluating. To do this, you need good problems to solve, interaction with others on solutions, and opportunities to write your own conclusions and present your ideas.

The learning experience and background of the students in CIT 3014 can vary widely. This means that different students will need to spend different amounts of time to learn the material. To help assist in this process, the class is designed as a hybrid class. Students will be completing reading, pre-tests, lab simulations, and optional video activities online. This will allow students to spend the amount of time needed to learn the basics before we engage in activities in class. Class time will be used for questions and answers, hands-on lab activities, highlighting more difficult concepts, student presentations, and closed-book examinations.

Objectives:

The course is designed to help you:

- Acquire knowledge and develop an understanding of foundational concepts and problem-solving skills in computer networking.
- Introduce students to all the CompTIA Network+ exam objectives.

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 routers and switch information to create an IP-based LAN/WAN.
5. Students will be able to explain network security risks 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:

Students must earn 60% or more in the course to earn a passing grade of "D-" but also must maintain a 2.0 GPA with the entire CIT program.

Your grade for the course is based on the following:

Activity	**Points**	**Percentage**
Chapter Quizzes	170	12%
Weekly Test	420	29%
Weekly Labs	120	8%
Online Labs	288	20%
Presentations	60	4%
Weekly Questions	85	6%
Final Exam	300	21%
Total	1443	100%

Students **must earn 60% or more of the available points in the class and 50% or more of the points on the final exam** to earn a passing grade in the course**.**

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%

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 4-unit class delivered over eight 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:

Reading	51
Videos and Chapter Highlights	42
Quizzes and Quiz Prep	12
Online Labs	15
In-Class Labs	14
Presentation Preparation	10
Final Exam Preparation	6
Total Hours	150

Weekly Questions:

Students will make posts regarding the weekly reading on either topics they found interesting or topics/questions for which they would like further explanation. Student posts are to be submitted in the weekly question discussion forum in Canvas at least 24 hours before the start of the class. Postings that are late will have a one-point deduction, and postings after the start of class will earn zero points.

Chapter Quizzes:

After each chapter reading, there will be a chapter quiz to help students self-assess their reading comprehension and understanding. This quiz is available online and must be completed before the start of class. Students will be allowed two attempts on each chapter quiz. Attempts after the due date / time will not be accepted.

Weekly Exams:

Weekly exams will be given in class (taken online using HonorLock) and will be closed-book. Weekly exams are more comprehensive than chapter practice quizzes and will test the student's understanding and comprehension of the material for a given week. Students must have a laptop in class (with WiFi access) to take these exams and must use their host OS. The use of a virtual machine is not allowed during exams.

Online Labs:

Each chapter will have a series of online labs that will simulate various activities discussed in the chapter. Students should complete these labs prior to class.

Weekly In-Class/Homework Labs:

Each week, a series of hands-on labs and student questions will be introduced and started in class. Students will need to complete a minimum level of activity in the lab during class, complete the lab write-up after class, and submit their findings and documented activities prior to the next class session.

Presentations:

Each student will be assigned two presentation assignments to be given in class. The date and topic of the presentation will be assigned by the instructor or students will self-select their time and topic based on instructor guidance. Presentations will be between 5 and 10 minutes in length. The presentation document (PowerPoint) and accompanying research documentation (MS Word) will be submitted 24 hours prior to the start of class when the presentation will be given.

Videos:

Each week, a set of videos will be available to be viewed before the start of class, covering topics specific to the CompTIA exam objectives. These videos will supplement the reading material offered online.

Final Exam: Date and Time

The final exam for this course will be given during the last hour of the last class meeting. The final exam will be comprehensive and cover all the CompTIA exam objects covered in the course. For the final exam, students must use their host OS on their laptop. The use of a virtual machine is not allowed during exams. The final exam is closed book and will be timed (60 minutes). The final exam schedule is set by the university and can not be taken early.

Successful completion of this class requires taking the final examination on its scheduled day. **If you ever miss the exam without giving the instructor prior notice and making arrangements to take the exam at a different time, there is a good chance you will receive a zero unless, of course, there was clearly an emergency.**

Late Work and Missed Work:

On-line labs and In-class labs may be submitted late with a 10% point deduction penalty per day. No assignment will be accepted after it is more than 5 days late. Missed weekly quizzes, student presentations, and the final exam cannot be completed late unless the student has prior written agreement from the instructor. Missed weekly quizzes, student presentations, and the final exam will receive zero points. Chapter quizzes attempted after the due date / time will receive zero points.

University 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.

Attendance:

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements.

If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an “F” grade.

Students who anticipate being absent for an entire week of a course should contact the instructor in advance for approval and make arrangements to complete the required coursework and/or alternative assignments assigned at the discretion of the instructor. Acceptance of late work is at the discretion of the instructor and does not waive attendance requirements.

Refer to **Academic Policies (https://pointloma-public.courseleaf.com/aug-catalog/academic-general-policies/)** for additional details.

Synchronous Attendance/Participation Definition

For synchronous courses that have specific scheduled meeting times (including in-person, hybrid, and synchronous online courses), absences are counted from the first official meeting of the class regardless of the date of the student’s enrollment. Courses with specific attendance requirements are outlined in the course syllabus.

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 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 on the PL campus, the first floor of the Balboa campus, and the second floor of the Mission Valley campus. For all students, including the Bakersfield campus, virtual appointments are available. You can reach the Educational

Access Center (EAC) by email or phone at 619-849-2533 (tel:(619)%20849-2533) . Students can access both requests for and evidence of disability through the Accommodate link off the main page of OneLogin. 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 approved 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 approved accommodations in that particular course. Accommodations are not retroactive; as such, 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-related need should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. In accordance with ADA, accommodations cannot constitute a fundamental alteration to course outcomes; therefore, planning ahead is vital in establishing appropriate accommodations for equal access to this course. 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 eligibility 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:

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course unless explicitly called for in the assignment instructions. If you have any doubts about using AI, please gain permission from the instructor.

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.

Email and Messages:

It is expected that students regularly use email. 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 email 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.

Some Tips About This Class:

- Set aside at least 10 - 15 hours each week to complete learning sessions.
- Come to class fully prepared to participate in learning by completing all assigned reading, reading quizzes, online labs, and videos.
- If you have a question, ***ASK***.

Assignments-At-A-Glance

The course summary below lists our assignments and their due dates. Click on any assignment to review it.

Additional Syllabus Information

Additional PLNU policies and practices that apply to this course can be found **HERE** **(https://docs.google.com/document/d/1kWXiOwPBL5ErYmtZr3xlYH0T-ULM9Bs3kfv-axsWJH8/edit?usp=sharing)**

Course Summary:

Date	Details	Due
Sun Oct 25, 2026	**Week 01 Overview**	to do: 11:59pm
Tue Oct 27, 2026	**Chapter 01 Reading** **(https://canvas.pointloma.edu/courses/88880/assignments/1332503)**	due by 6pm
	Chapter 02 Reading **(https://canvas.pointloma.edu/courses/88880/assignments/1332506)**	due by 6pm

Date	Details	Due
	Week 01 Questions - Due 24 hours before class. (https://canvas.pointloma.edu/courses/88880/assignments/1332493)	due by 6pm
Wed Oct 28, 2026	Academic Honesty Verification Statement (https://canvas.pointloma.edu/courses/88880/assignments/1332486)	due by 6pm
	Chapter 01 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332501)	due by 6pm
	Chapter 01 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332502)	due by 6pm
	Chapter 02 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332505)	due by 6pm
	Syllabus Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332492)	due by 6pm
	Week 01 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332483)	due by 10pm
Sun Nov 1, 2026	Week 02 Overview	to do: 11:59pm
Tue Nov 3, 2026	Chapter 03 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332509)	due by 6pm
	Chapter 04 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332512)	due by 6pm
	Week 02 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332495)	due by 6pm
Wed Nov 4, 2026	Chapter 03 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332507)	due by 6pm
	Chapter 03 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332508)	due by 6pm
	Chapter 04 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332510)	due by 6pm

Date	Details	Due
	Chapter 04 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332511)	due by 6pm
	Lab 01 (https://canvas.pointloma.edu/courses/88880/assignments/1332552)	due by 6pm
	Week 02 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332487)	due by 10pm
Sun Nov 8, 2026	Week 03 Overview	to do: 11:59pm
Tue Nov 10, 2026	Chapter 05 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332515)	due by 6pm
	Chapter 06 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332518)	due by 6pm
	Week 03 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332496)	due by 6pm
Wed Nov 11, 2026	Chapter 05 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332513)	due by 6pm
	Chapter 05 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332514)	due by 6pm
	Chapter 06 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332516)	due by 6pm
	Chapter 06 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332517)	due by 6pm
	Lab 02 (https://canvas.pointloma.edu/courses/88880/assignments/1332553)	due by 6pm
	Week 03 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332485)	due by 10pm
Sun Nov 15, 2026	Week 04 Overview	to do: 11:59pm
Tue Nov 17, 2026	Chapter 07 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332521)	due by 6pm

Date	Details	Due
	Chapter 08 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332524)	due by 6pm
	Week 04 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332497)	due by 6pm
Wed Nov 18, 2026	Chapter 07 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332519)	due by 6pm
	Chapter 07 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332520)	due by 6pm
	Chapter 08 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332522)	due by 6pm
	Chapter 08 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332523)	due by 6pm
	Lab 03 (https://canvas.pointloma.edu/courses/88880/assignments/1332554)	due by 6pm
	Week 04 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332491)	due by 10pm
Sun Nov 22, 2026	Week 05 Overview	to do: 11:59pm
Fri Nov 27, 2026	Networking Course Insights Discussion (Due Friday/Sunday - Not accepted late) (https://canvas.pointloma.edu/courses/88880/assignments/1332498)	due by 11:59pm
Sun Nov 29, 2026	Mid-Course Survey (https://canvas.pointloma.edu/courses/88880/assignments/1332484)	due by 11:59pm
	Response Post Reminder	to do: 11:59pm
	Week 06 Overview	to do: 11:59pm
Tue Dec 1, 2026	Chapter 09 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332527)	due by 6pm
	Chapter 10 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332530)	due by 6pm

Date	Details	Due
	Chapter 11 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332533)	due by 6pm
	Week 06 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332499)	due by 6pm
Wed Dec 2, 2026	Chapter 09 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332525)	due by 6pm
	Chapter 09 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332526)	due by 6pm
	Chapter 10 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332528)	due by 6pm
	Chapter 10 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332529)	due by 6pm
	Chapter 11 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332531)	due by 6pm
	Chapter 11 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332532)	due by 6pm
	Lab 04 (https://canvas.pointloma.edu/courses/88880/assignments/1332555)	due by 6pm
	Week 06 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332488)	due by 10pm
Sun Dec 6, 2026	Week 07 Overview	to do: 11:59pm
Tue Dec 8, 2026	Week 07 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332500)	due by 6pm
	Chapter 12 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332536)	due by 6pm
	Chapter 13 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332539)	due by 6pm

Date	Details	Due
	Chapter 14 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332542)	due by 6pm
Wed Dec 9, 2026	Chapter 12 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332534)	due by 6pm
	Chapter 12 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332535)	due by 6pm
	Chapter 13 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332537)	due by 6pm
	Chapter 13 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332538)	due by 6pm
	Chapter 14 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332540)	due by 6pm
	Chapter 14 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332541)	due by 6pm
	Lab 05 (https://canvas.pointloma.edu/courses/88880/assignments/1332556)	due by 6pm
	Week 07 Test (https://canvas.pointloma.edu/courses/88880/assignments/1332490)	due by 10pm
Sun Dec 13, 2026	Week 08 Overview	to do: 11:59pm
Tue Dec 15, 2026	Chapter 15 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332545)	due by 6pm
	Chapter 16 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332548)	due by 6pm
	Chapter 17 Reading (https://canvas.pointloma.edu/courses/88880/assignments/1332551)	due by 6pm
	Week 08 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332494)	due by 6pm
Wed Dec 16, 2026	Chapter 15 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332543)	due by 6pm

Date	Details	Due
	Chapter 15 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332544)	due by 6pm
	Chapter 16 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332546)	due by 6pm
	Chapter 16 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332547)	due by 6pm
	Chapter 17 Online Labs (https://canvas.pointloma.edu/courses/88880/assignments/1332549)	due by 6pm
	Chapter 17 Practice Quiz (https://canvas.pointloma.edu/courses/88880/assignments/1332550)	due by 6pm
	Lab 06 (https://canvas.pointloma.edu/courses/88880/assignments/1332557)	due by 6pm
	Official Course Evaluation (https://canvas.pointloma.edu/courses/88880/assignments/1332558)	due by 6pm
	Final Exam (https://canvas.pointloma.edu/courses/88880/assignments/1332489)	due by 10pm
	Paper and In Class Presentation 01 - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332559)	
	Paper-Only Presentation 02 - Due 24 hours before class (https://canvas.pointloma.edu/courses/88880/assignments/1332560)	