CIS 654 (1) - Computer Networking

Grand Valley State University - College of Computing - Winter 2026

Instructor	Contact Info	Office Location	Office Hours
Dimitrios Melissourgos	melissod@gvsu.edu 352 278 6777 Discord	MAK D-2-232	Monday 2pm-3pm Wednesday 2pm-3pm Friday 2pm-3pm

Course Description

General Information

Data communications and computer networking concepts, Internet architecture and protocols. Selected examples of client/server applications to introduce the functional requirements of Internet working. Basic cryptography and its applications, introduction to network security (firewalls, IPsec, VPN and SSL).

Credits: 3

Grading scheme: Letter grade

Prerequisite: Admission to M.S. in applied computer science, artificial intelligence, software engineering, cybersecurity or cybersecurity badge or distributed systems badge.

Lecture time: Tuesday 6:00pm-8:50pm

Lecture location: CHS-223

Lecture type: Multi-delivery (in person, online synch, and online asynch)

Course Objectives

After completing the course, students will be able to:

- Understand the basics of the IP, UDP and TCP protocols
- Develop programs in Java or Python that use sockets to implement simple client/server applications
- Use Wireshark to examine traces of communications

Required Course Material

Computer Networking: A Top-Down Approach, 9th edition, by James Kurose and Keith Ross

Exams

Exam	Date	Time	Location
Midterm 1	**Friday, February 20**	**2:00pm-4:00pm**	**Blackboard**
Midterm 2	**Friday, March 20**	**2:00pm-4:00pm**	**Blackboard**
Final Exam	**Tentative**	**Tentative**	**Blackboard**

Course Schedule (Tentative)

Week	Topic
Week 1	Introduction, Administrivia, Chapter 1
Week 2	Chapter 1, Lab 1 Intro, Chapter 2
Week 3	Chapter 2, Lab 2 HTTP
Week 4	Chapter 2, Lab 3 DNS
Week 5	Chapter 3
Week 6	Chapter 3, Lab 4 UDP
Week 7	Chapter 3, Lab 5 TCP
Week 8	Chapter 4, Lab 6 Subnets
Week 9	Spring break
Week 10	Chapter 5, Lab 7 IP
Week 11	Chapter 5, Lab 7 IP
Week 12	Chapter 6
Week 13	Chapter 6, Lab 8 NAT, ARP, DNS, and Routing
Week 14	Chapter 7, Lab 9 Network Design
Week 15	Chapter 8, Lab 10 TLS

Grading Policy

Grading Scale	
A	≥93%
A-	≥90%
B+	≥87%
B	≥83%
B-	≥80%
C+	≥77%
C	≥73%
C-	≥70%
D+	≥67%
D	≥63%
F	<63%

Assignment / Test	Percentage of Final Grade
Quizzes	10%
Labs	35%
Project	20%
Midterm 1	10%
Midterm 2	10%
Final	15%

Attendance Policy

Students are expected to attend the class either in person or online. If you attend online, you can attend either synchronously or asynchronously. All slides and video lectures will be uploaded on Blackboard. However, it is recommended to attend in person as much as you can.

Quizzes

There will be a quiz at the end of each chapter. The questions in the quizzes will be based on recent material discussed in class and labs for that chapter. These are open-book quizzes, meaning you can use the book, the course slides, and your notes. However, you are not allowed to discuss your quiz answers with other students or engage in practices that would be considered plagiarism, copying, or cheating. Each student is required to complete the quizzes by themselves. The late submission policy is the same as the labs described below. The use of ChatGPT or other LLM software is prohibited.

Labs

The lab work aims to provide practical experience in inspecting, configuring, and managing computer network systems. Lab time is used to get you started on your lab assignments, but sometimes it will not be enough to complete them. You have to submit a report on Blackboard for each lab assignment.

There will be 10 lab assignments over the duration of the semester. The due day for your report will be one week after the assignment has been given out, unless stated otherwise.

Assignments turned in after the due date will receive a 20% late submission penalty per day, including weekends and holidays, with a max of 4 days.

Lab assignments are open-book; you are allowed to use the book, the course slides, your notes, and discuss with the instructor while completing the work. However, you are not allowed to discuss your assignments with other students or engage in practices that would be considered plagiarism, copying, or cheating. Each student is required to complete the lab assignments by themselves. The use of ChatGPT or other LLM software is prohibited.

Project

There is a semester-long project that students need to complete by Monday, April 20th. It can be done in groups of 2 or 3 people. If you do not form a team on your own, one will be assigned to you. Exceptions for individual projects or larger teams can be made upon request.

The goal of the project is to teach you the fundamentals of socket programming. You can use any programming language you want, but it has to include sockets. The project description can be found here.

Additional Information and Resources

Important Dates

Drop Deadline - Grade "W": March 27 by 5:00pm

Other important dates: Winter 2026 Academic Calendar

Classroom Protocol

Treat faculty, staff, your fellow students, and university property with respect. Do not use your phone during class. Do not make distractions and be on time for the class meetings. Any regrading requests must be made within a week of the students receiving their grade.

Integrity and Honesty

All students are expected to adhere to the academic honesty standards set forth by Grand Valley State University. In addition, students in this course are expected to adhere to the academic honesty guidelines set forth by the College of Computing.

Course Evaluation

The end-of-semester course evaluation sites are set up in LIFT and maintained by the Academic Department Coordinator. Course evaluation sites become available to students during the last two weeks of the semester (not exam week), unless specified otherwise.

Accessibility and Special Accommodations

Grand Valley State University strives to provide an inclusive environment across campus that is accessible to all individuals with a diverse range of abilities. As your instructor, it is my objective to facilitate opportunities within all class activities and programs because your success is important to me. If you are encountering difficulties that are interrupting your learning experience, please feel free to make those known to me as soon as possible. If you feel that you need accommodations in this course, you must present a memo to me from Student Accessibility Resources (SAR), indicating the approved accommodations. If the class meets in person, you should schedule a meeting with me during office hours to discuss your accommodations. If your class is online or hybrid, please forward your memo to me in an email and schedule a virtual or phone appointment with me to discuss your accommodations. Accommodations are not retroactive. If you have not already done so, please contact the Student Accessibility Resources office (215 CON) by calling (616) 331-2490 or by email to access@gvsu.edu. You can also visit the SAR website here. Please note that I cannot provide accommodations, until I have received a copy of the SAR issued memo. Furthermore, if you think you will need assistance evacuating this classroom and/or building in an emergency, please make me aware so that the university and I can develop a plan to assist you. All discussions will remain confidential.

GVSU Course Policies

This course is subject to the GVSU policies.

Discrimination or Sexual Misconduct

Grand Valley State University is committed to creating and advancing a campus community where individuals feel empowered to raise concerns, ask for help, and be informed about options before making any decisions. If you become aware of any discrimination or sexual misconduct incident, please report it at the Title IX office.

In Case of Emergency

In Case of Fire: Immediately proceed to the nearest exit during a fire alarm. Do not use elevators.

More information is available on the University's Emergency website.