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# CIS 225: DATA COMMUNICATION AND NETWORKS

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**Class Schedule:** Monday, Tuesday, Thursday, Friday 10am to 10:50am

**Instructor:** Chad Johnson

**Office:** SCI B231

**Phone:** 715-346-2120

**Email:** Chad.Johnson@uwsp.edu

**Office hours:** Wednesday, 10am to 12pm

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## COURSE DESCRIPTION

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This course provides an introduction into the networking principles that with form the foundation of the topic for more advanced courses. These foundational principles include the basic technologies of small to large networks, basic network security, and common protocols you will need to understand to advance in your understanding.

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## COURSE TOPICS

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- Networks (Internet, LANs, Wireless)
- Networking Models (OSI and IP)
- Network Media (wired, optical, wireless)
- Network protocols/services/applications (IP, TCP, UDP, ICMP, DNS, NTP, VLAN, SMTP, HTTP, VoIP, SSH)
- Quality of Service
- IPv4 / IPv6 Suite / Addressing
- Network Switching (Ethernet) - ARP and RARP

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## TEXTBOOK

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- *Computer Networking: A Top-Down Approach, 7<sup>th</sup> Ed.* Kurose and Ross. ISBN: 9780133594140
- We will be using open-source texts, posted to Canvas.

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## LECTURES

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- Lecture notes will be posted in Canvas. I make every effort to make my notes available, but I may decline to include them at my discretion.

**Note: Schedule / Syllabus is tentative and subject to change.**

- Students are strongly encouraged to attend each class and actively participate in class discussions.
- In general, I do not believe in taking attendance. However, class attendance may be taken in any class without notification in advance.

## GRADING

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- 2 Exams: 40% (20% each)
- 12 Labs: 60% (5% each)

Final grades will be assigned according to the following scale:

A: score $\geq 90$	A-: 87 $\leq$ score $< 90$	
B+: 83 $\leq$ score $< 87$	B: 80 $\leq$ score $< 83$	B-: 77 $\leq$ score $< 80$
C+: 73 $\leq$ score $< 77$	C: 70 $\leq$ score $< 73$	C-: 65 $\leq$ score $< 70$
D: 60 $\leq$ score $< 65$		
F: score $< 60$		

Scale may be adjusted, depending on the overall performance of the class.

## ASSIGNMENTS AND DEADLINES

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- Labs will be a variety of tasks. Some may require writing a short paper. Others might require completing multiple steps to achieve a goal (as in a CTF.) Each assignment will have those expectations detailed in the assignment instructions.
- Exams are open note/book, and you can use the Internet to search for answers. Please do not collaborate on them. They are not group assignments. You will have the week to complete the exam. Two attempts. Questions will be randomly chosen from a bank. Multiple-choice, multi-select, and true/false only. If you miss an exam, it cannot be made up.

## OFFICE HOURS POLICY

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- I prefer that you contact me via email.
- However, you are still welcome to my office to ask me any questions at any other times.
- I fear the phone.
- Virtual office hours will be posted to Canvas or you can just make an appointment with me through Bookings.

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## REGRADING

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Grades will be posted in Canvas. After the scores are announced, you have 7 days to request regrading by contacting the instructor (office hours or email). Your grade will be final after 7 days.

## CANVAS

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The Canvas URL is <https://canvas.uwsp.edu>. Use your UWSP NetID and password to login. We use Canvas for everything from important announcements, instructions, assignment submissions, and grades.

## ACADEMIC INTEGRITY

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The university cannot and will not tolerate any form of academic dishonesty by its students. This includes, but is not limited to cheating on examinations, plagiarism, or collusion. **Any form of academic dishonesty may lead to F grade for this course.**

## STUDENTS WITH DISABILITIES

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If you require accommodation based on disability, please let me know. I am willing to provide any reasonable accommodations you require. The sooner you inform me the better.

## FACE COVERINGS

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At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

## OTHER GUIDANCE

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Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).

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As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.

Maintain a minimum of 6 feet of physical distance from others whenever possible.

Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.

Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.

Please maintain these same healthy practices outside the classroom.

## TENTATIVE SCHEDULE

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Week	Lecture Topics	Due	Read
1	Introduction & Syllabus		
2	Networks (Internet, LANs, Wireless)	Lab 1	
3	Networking Models (OSI and IP)	Lab 2	
4	Network Media (wired, optical, wireless)	Lab 3	
5	Network protocols (IP, TCP, UDP, ICMP)	Lab 4	
6	IPv4 Suite / Addressing	Lab 5	
7	IPv6 Suite / Addressing	Lab 6	
8	Network services and protocols (DNS, NTP, VLAN)	Exam 1	
9	Network services and protocols (DNS, NTP, VLAN)		
10	Network applications and protocols (SMTP, HTTP, VoIP, SSH)	Lab 7	
11	Network applications and protocols (SMTP, HTTP, VoIP, SSH)	Lab 8	
12	Network applications and protocols (SMTP, HTTP, VoIP, SSH)	Lab 9	
13	Network Switching (Ethernet) - ARP and RARP	Lab 10	
14	Multicasting	Lab 11	
15	Quality of Service	Lab 12	
16	Finals Week	Exam 2	

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