

CS 4133/5133 Data Networks – FALL 2023

Instructor:

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Teaching Assistant:

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Office Hours: Devon Energy Hall Room 115, Tues, Thu, Fri 9-10 am or by appointment

Course Schedule:

This course meets on Mondays and Wednesdays from 4:30 – 5.45 pm in Carson 117

Course Description:

This course provides a comprehensive treatment of the data networking principles, including layered protocol design and their functions, tools for performance analysis, multi-access communication, routing and flow control.

Course Focus:

This course focuses on obtaining a broad picture of the different types of computer networks, grasping the concept of layers in computer networks, acquiring the fundamental concepts of the Internet and TCP/IP protocol, and acquiring knowledge about performance evaluation techniques for computer networks.

Prerequisite:

CS 3113 and Engr 3293 or Math 4753 are prerequisites for CS 4133. CS 3113 or CS 5004 or permission of the instructor is a prerequisite for CS 5133. Any student who has not completed at least one of these prerequisite courses (as stated in the University of Oklahoma catalog) will be subject to administrative withdrawal at any time before final grades are released.

Texts and References:

- Andrew S. Tanenbaum, "Computer Networks," Prentice Hall, Fourth edition.
- Notes will be available on the web through the *Canvas* course management system
- Additional references, if needed, will be provided by the instructor.

Computer Usage:

General office software and computer simulation software may be used. Selected course material will be delivered via *Canvas*. If you have any difficulty accessing *Canvas*, please contact the Course Management Support line at 325-7010 or web-courses@ou.edu

Student Contributions:

Lecture attendance is crucial in this class. Each student will take a midterm exam and a comprehensive final exam. Homeworks and projects will be assigned during the semester. *The lowest homework grade will be dropped from the grade calculation to account for unexpected emergencies and sickness.*

Electronic submission of projects is planned. Working together on out-of-class assignments and projects is encouraged, but all submitted work must reflect each student's understanding, and all documents/submissions must be developed independently. Homework assignments are due at the beginning of class, but a 24-hour grace period may be granted to allow for last-minute difficulties.

Course Evaluation:

Exams, homeworks and project will be used to assess each student's progress toward meeting the stated course goals. The points will be distributed as follows:

Homework	15 points
Projects	30 points
Midterm Exam	25 points
Comprehensive Final Exam	30 points

Final grades will be determined on the total points obtained as follows:

$$A \geq 90, 80 \leq B < 90, 70 \leq C < 80, 60 \leq D < 70$$

Graduate students may not receive a grade of D

Student ratings:

The College of Engineering utilizes student ratings as one of the bases for evaluating the teaching effectiveness of each of its faculty members. The results of these forms are important data used in the process of awarding tenure, making promotions, and giving salary increases. In addition, the faculty uses these forms to improve their own teaching effectiveness. The original request for the use of these forms came from students, and it is students who eventually benefit most from their use. Please take this task seriously and respond as honestly and precisely as possible, both to the machine-scored items and to the open-ended questions.

Masking Policy:

Please check out <https://www.ou.edu/together>.

Attendance Policy

Attendance in lectures is highly encouraged.

Students who are experiencing symptoms of COVID-19, including cough, fever, shortness of breath, muscle pain, headache, chills, sore throat, loss of taste or smell, congestion or runny nose, nausea or vomiting, or diarrhea or who have been in close contact with others who have symptoms should follow University policies regarding COVID-related issues.

Academic Integrity:

All work submitted for an individual grade, such as homework and projects, should be the work of that single individual, not their friends or their tutor. Students who fail to do their own work not only violate the Code of Conduct for the University of Oklahoma, but also may fail to learn critical learning objectives for the class.

1. Do not show another student a copy of your homework or projects before the submission deadline.
2. Do not email your project to another student, even if they promise they will not copy it.
3. Make sure that your computer account is properly protected. Use a good password, and do not give your friends access to your account or your computer system.
4. Do not leave thumb drives around a laboratory where others might access them.
5. The penalties for knowingly permitting your work to be copied are the same as the penalties for copying someone else's work.

Upon the first documented occurrence of a breach of academic integrity, I will report the academic misconduct to the Campus Judicial Coordinator. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. In the unlikely event that I elect to admonish the student, the appeals process is described at <http://integrity.ou.edu/students.html>

Check out <http://integrity.ou.edu/> for details about integrity at OU.

Religious Observance:

It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays.

Reasonable Accommodation Policy:

Students requiring academic accommodation should contact the Accessibility and Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please visit <http://www.ou.edu/drc/home.html>. Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Title IX Resources:

For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405/325-2215 (8 to 5, M-F) or smo@ou.edu. Incidents can also be reported confidentially to OU Advocates at 405/615-0013 (phones are answered 24 hours a day, 7 days a week). Also, please be advised that a professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination to the Sexual Misconduct Office. Inquiries regarding non-discrimination policies can be directed to University Equal Opportunity Officer and Title IX Coordinator at 405/325-3546 or smo@ou.edu. For more information, visit <http://www.ou.edu/eoo.html>.

Adjustments for Pregnancy/Childbirth Related Issues:

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact your professor or the Disability Resource Center at 405/325-3852 as soon as possible. Also, see <http://www.ou.edu/eoo/faqs/pregnancy-faqs.html> for answers to commonly asked questions.

Final Exam Preparation Period:

Pre-finals week will be defined as the seven calendar days before the first day of finals. Faculty may cover new course material throughout this week. For specific provisions of the policy please refer to OU's Final Exam Preparation Period policy.

Emergency Protocol:

During an emergency, there are official university [procedures](#) that will maximize your safety.

Severe Weather: If you receive an OU Alert to seek refuge or hear a tornado siren that signals severe weather

1. LOOK for severe weather refuge location maps located inside most OU buildings near the entrances
2. SEEK refuge inside a building. Do not leave one building to seek shelter in another building that you deem safer. If outside, get into the nearest building.
3. GO to the building's severe weather refuge location. If you do not know where that is, go to the lowest level possible and seek refuge in an innermost room. Avoid outside doors and windows.
4. GET IN, GET DOWN, COVER UP.
5. WAIT for official notice to resume normal activities.

[Link to Severe Weather Refuge Areas](#) , [Severe Weather Preparedness - Video](#)

Armed Subject/Campus Intruder:

If you receive an OU Alert to shelter-in-place due to an active shooter or armed intruder situation or you hear what you perceive to be gunshots:

1. GET OUT: If you believe you can get out of the area WITHOUT encountering the armed individual, move quickly towards the nearest building exit, move away from the building, and call 911.
2. HIDE OUT: If you cannot flee, move to an area that can be locked or barricaded, turn off lights, silence devices, spread out, and formulate a plan of attack if the shooter enters the room.
3. TAKE OUT: As a last resort fight to defend yourself.

For more information, visit <http://www.ou.edu/emergencypreparedness.html>,

[Shots Fired on Campus Procedure - Video](#)

Fire Alarm/General Emergency:

If you receive an OU Alert that there is danger inside or near the building, or the fire alarm inside the building activates: 1. LEAVE the building. Do not use the elevators. 2. KNOW at least two building exits 3. ASSIST those that

may need help 4. PROCEED to the emergency assembly area 5 ONCE safely outside, NOTIFY first responders of anyone that may still be inside building due to mobility issues. 6. .WAIT for official notice before attempting to re-enter the building.

[OU Fire Safety on Campus](#)

Mental Health Support Services:

If you are experiencing any mental health issues that are impacting your academic performance, counseling is available at the University Counseling Center (UCC). The Center is located on the second floor of the Goddard Health Center, at 620 Elm Rm. 201, Norman, OK 73019. To schedule an appointment call (405) 325-2911.

For more information please visit <http://www.ou.edu/ucc>.

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