Course Syllabus

✎ Edit

CS471/571: Operating Systems: Fall 2025

Instructor:

	Details
Title:	Professor and Chair
Name:	Ravi Mukkamala
Office Location:	ECS 3300
Office Hours:	Tuesday, Thursday 3-4PM or by appointment
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Instructor Bio (optional):	*https://www.odu.edu/directory/ravi-mukkamala*

✉ Contact Policy

I will respond to emails within 24 hours on weekdays. For any course-related communication, please use your ODU email, as I will not respond to non-ODU emails. In the case of an urgent request, please text me at 757 748 2195.

❓ Office Hours

I plan to use Zoom for my office hours twice a week. **https://odu.zoom.us/j/92623705977 (https://odu.zoom.us/j/92623705977)**

Meeting ID: 926 2370 5977

👤 Grader's Contact Information

Name: Changrui Li

Office Location: [https://odu.zoom.us/j/93617774458 (https://odu.zoom.us/j/93617774458)](https://odu.zoom.us/j/93617774458)

Office Hours: Mon, Fri, 3-4 pm

Email Address: [c3li@odu.edu (mailto:c3li@odu.edu)](mailto:c3li@odu.edu) , please include "CS471_13706" in the title.

Course Description

Catalog Description

This course is 3 credits. Prerequisites: a grade of C or better in CS 361. There will be laboratory work required.

Topics include:

- Operating system structures
- Multiprogramming and multiprocessing
- Process management
- Memory and other resource management
- Storage management
- I/O systems
- Distributed systems
- Protection and security

These concepts will be illustrated through example systems such as Unix and Windows.

Readings and Materials

Required Materials

Textbook: Silberschatz, Galvin, and Gagne. Operating System Concepts. John Wiley & Sons, Inc. 9th or 10th Edition **John Wiley & Sons, Inc.**
ISBN 978-1-118-06333-0

Optional Materials

Reference material and links to videos

Course Objectives

At the end of the course, the student will be able to:

1. Recognize the general purpose and need of the online course
2. Explain the need for an operating system
3. Describe the functionality of an operating system
4. Discern the structure of an operating system and it components
5. Discern the key role of processes and threads
6. Explain inter-process communication
7. Analyze synchronization problems in computer systems
8. Analyze operating system algorithms for performance
9. Identify mechanisms to detect and handle deadlocks
10. Assess operating system policies in terms of the cost they incur
11. Discern the limitations of main memory
12. Explain the need for memory mechanisms such virtual memory, paging and segmentation.
13. Describe different mechanisms for secondary storage management
14. Discern the general structure of a distributed system
15. Recognize the need for coordination among processes in a distributed application
16. Evaluate protection and security policies in an operating system
17. Configure an operating system and evaluate its characteristics
18. Build operating system software

How the Course Works

This online course employs several methods of delivery and learning activities including online lectures and presentations, threaded discussions, Web sites, video clips, reading and written assignments, self-assessment checks, examinations, e-mail, and electronic access of information.

Grading Criteria

Your grade in this class will be based on the following:

CS471/571

Examination	Date	Points	Weights
Mid-Term	10/18/2025	125	25%
Final Examination	12/6/2025	125	25%
Discussion		25	5%
Course Project	11/25/2025	100	20%
Homework		100	20%

Examination	Date	Points	Weights
Quiz		25	5%
Total		500	100%

CS471 Grading scale:

Grade	Percentage
A	90-100
A-	87-89
B+	84-86
B	80-83
B-	77-79
C+	74-76
C	70-73
C-	67-69
D+	64-66
D	60-63
F	Below 60

CS 571 Grading scale:

Grade	Percentage
A	95-100
A-	90-94

B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
F	Below 70

Late Assignments

Any assignment submitted after its deadline is considered late. Weekends are counted just like weekdays. I reserve the right to specify that late submissions will not be accepted for particular assignments

Student Responsibilities

By attending Old Dominion University you have accepted the responsibility to abide by this code:

I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member if the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned.

I do not tolerate academic dishonesty at any level and such conduct will result a substantial penalty for all parties involved.

Time Management

Students are expected to spend 10 hours per week on the course materials and assignments. Out of 10 hours, students are expected to spend approximately 3 hours per week to read the material and another 3 hours/week for the homework and discussions.

Utilizing Online Components

Refer to the *Start Here* section within the Blackboard menu and the course tour

Study Guide Strategies ⤷ **(http://www.studygs.net/)**

[Papers Citation Styles](http://www.dianahacker.com/resdoc) ⬀ **(http://www.dianahacker.com/resdoc)**

Attendance

Since this is an on-line course, there is no mandatory attendance policy. However, students are expected to actively participate in the discussions, homework submissions, and journal writing. Each of these components is graded and counted toward the final grade.

Course Policies

Online Classroom Conduct (Netiquette)

Students are expected to follow good Netiquette rules. Netiquette is the accepted behavior for online participation. The following is a list of general guidelines for this course:

- Check your grammar and spelling
- Keep your comments focused on the topic
- Strive to write succinctly and clearly
- Share your knowledge and include supportive evidence for your comments
- Do not use all capital letters as that is viewed as shouting
- Avoid flaming — disrespectful language is unacceptable

Select the link to find more information on **[Netiquette](http://www.albion.com/netiquette/corerules.html)** ⬀ **(http://www.albion.com/netiquette/corerules.html)** .

Attendance

Since this is an on-line course, there is no mandatory attendance policy. However, students are expected to actively participate in the discussions, homework submissions, and journal writing. Each of these components is graded and counted towards the final grade.

Tests and Make-ups

The same information for homework will apply for tests and make-up work: If a situation has occurred that requires your time and attention which will prevent submitting your work on time, please notify your instructor 24 hours before the scheduled due date.

Course Disclaimer

Every attempt is made to provide a syllabus that is complete and that provides an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester. This may depend, in part, on the progress, needs, and experiences of the students.

University Policies

Academic Integrity

Old Dominion University is committed to students' personal and academic success. In order to achieve this vision, students, faculty, and staff work together to create an environment that provides the best opportunity for academic inquiry and learning. All students must be honest and forthright in their academic studies. Your work in this course and classroom behavior must align with the expectations outlined in the Code of Student Conduct, which can be found at **www.odu.edu/oscai (https://www.odu.edu/oscai)** . The following behaviors along with classroom disruptions violate this policy, corrupt the educational process, and will not be tolerated.

- **Cheating:** Using unauthorized assistance, materials, study aids, or other information in any academic exercise.
- **Plagiarism:** Using someone else's language, ideas, or other original material without acknowledging its source in any academic exercise.
- **Fabrication:** Inventing, altering or falsifying any data, citation or information in any academic exercise.
- **Facilitation:** Helping another student commit, or attempt to commit, any Academic Integrity violation, or failure to report suspected Academic Integrity violations to a faculty member.

Academic dishonesty will be reported to the Office of Student Conduct & Academic Integrity and may result in sanctions up to and including expulsion from the University.

Plagiarism

No plagiarism will be tolerated under any circumstances. As faculty, I am bound to report any instances of plagiarism. All cases are heard before the honor council. If found guilty, the student automatically receives a failing grade in the course, and a notice is entered into the permanent record for a period of time.

College Class Conduct

The following standards are intended to define acceptable classroom behavior that preserves academic integrity and ensures that students have optimum environmental conditions for effective learning.

1. Students must turn off cell phones and pagers during class or have them set to vibrate mode.
2. Classes are expected to begin on time, and students will respect the time boundaries established by the professor. If classroom doors are locked, students may not knock or seek entrance in other ways.
3. Students should notify instructors in advance when a class will be missed. In the event of an emergency that causes a class to be missed, instructors must be notified as soon as possible.
4. Instructors may require that cell phones and other electronic devices be left on their desks during tests or examinations.
5. Students must not engage in extraneous conversations during classes. Such acts are considered to be violations of the Code of Student Conduct.
6. Students will activate their Old Dominion e-mail accounts and check them before each class. If the student chooses to have his/her messages forwarded to another account, it is the student's responsibility to take the necessary steps to have them forwarded.

7. Consumption of food and drink during class is prohibited, except when the professor has specifically approved of such acts.

8. Offensive language, gestures and the like are disrespectful and disruptive to the teaching-learning process.

Honor Code

The Old Dominion University Honor Code will be strictly enforced. By attending Old Dominion University, you have signed a pledge accepting the responsibility to abide by the following Honor Code found at **Office of Student Conduct and Academic Integrity (http://www.odu.edu/oscai)** .

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We the students of Old Dominion University, aspire to be honest and forthright in our academic endeavors. Therefore, we will practice honesty and integrity and be guided by the tenets of the Monarch Creed. We will meet the challenge to be beyond reproach in our actions and our words. We will conduct ourselves in a manner that commands the dignity and respect that we also give to others.

-ODU Honor Code

This is an institutional policy approved by the Board of Visitors. The University Honor Code applies to all assignments.

Honor Pledge

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I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned.

-ODU Honor Pledge

By attending Old Dominion University you have accepted the responsibility to abide by this code. This is an institutional policy approved by the Board of Visitors. For more information, please visit **Policies and Student Responsibilities (https://online.odu.edu/admissions/policies-and-student-responsibilities)** .

Educational Accessibility

In compliance with PL94-142 and more recent federal legislation affirming the rights of disabled individuals, provisions will be made for students with special needs on an individual basis. The student must be identified by the university and provide a letter from the Office of Educational Accessibility (OEA), located at 1021 Student Success Center. Any accommodations will be based upon written

guidelines from the Office of Educational Accessibility (OEA). All students are expected to fulfill all course requirements.

Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act. The Office of Educational Accessibility (OEA) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.

- If you experience a disability which will impact your ability to access any aspect of my class, please present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.
- If you feel that you will experience barriers to your ability to learn and/or testing in my class but do not have an accommodation letter, please consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

The Office of Educational Accessibility is located at 1021 Student Success Center and their phone number is **(757)683-4655 (tel:+17576834655)** . Additional information is available at the **OEA Website (http://www.odu.edu/educationalaccessibility/)** .

University Email & Electronic Messaging Systems Policies

Electronic messaging systems and communication services are provided by Old Dominion University for the purpose of enhancing productivity and maintaining effective communication.

Old Dominion University employees, students, employees of affiliated organizations, and guests, volunteers, and researchers who are provided official email accounts must activate and maintain regular access to these accounts. These accounts must be used to send and receive electronic communications related to official University business.

Failure to access the email account will not exempt individuals from their responsibility of being aware of and meeting requirements and responsibilities included in electronic communications.

Message content is the sole responsibility of the individual sending the message and users must adhere to **University Policy 3500, Use of Computing Resources (https://www.odu.edu/about/policiesandprocedures/university/3000/3500)** , and **Information Technology Standard 09.1.0, Acceptable Use Standard (http://www.odu.edu/about/policiesandprocedures/computing/standards/09/01)** . Users are also encouraged to practice generally accepted online etiquette.

Instructors retain the discretion of establishing class expectations for email and other electronic messaging communication as a part of the course requirements.

Alternative messaging services should be arranged in cases where users' access to information technology resources is limited or unavailable.

Incomplete

Documented illnesses, deaths in family, car accidents, or other traumatic occurrences call for flexibility and good judgment on the part of the student and instructor. These situations are rare and are handled individually. Should such a situation occur, students **MUST** contact **Student Outreach & Support (https://www.odu.edu/life/support/student-outreach)** . Email **oducares@odu.edu (mailto:oducares@odu.edu)** or by phone **757-683-3442 (tel:+17576833442)** to acquire the necessary documentation. An incomplete grade will only be given under the following circumstances

1. The student has completed ½ or more of the course requirements with a C or better
2. There is legitimate deficiency due to the illness or emergencies deemed acceptable to the instructor
3. There is not neglect on the student's part.

Withdrawal

A syllabus constitutes an agreement between the student and the course instructor about course requirements. Participation in this course indicates your acceptance of its teaching focus, requirements, and policies. Please review the syllabus and the course requirements as soon as possible. If you believe that the nature of this course does not meet your interests, needs or expectations, if you are not prepared for the amount of work involved - or if you anticipate that the class meetings, assignment deadlines or abiding by the course policies will constitute an unacceptable hardship for you - you should drop the class by the drop/add deadline, which is located in the ODU Schedule of Classes. For more information, please visit the Office of the Registrar.

Student Acknowledgement

"I, _____ , have completely read this syllabus and understand and agree to the course requirements".