## Syllabus Outline

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## Course Description

### Catalog Description
This course is 3 credits. Prerequisites: a grade of C or better in CS 270 and 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

### Readings

#### Required Materials
Please choose either the 9th or 10th edition. You do not need both.


### 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

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percentage of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Quizzes</td>
<td>50%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Extra Credit</td>
<td>Up to 5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Extra Credit
Your completion of the optional programming exercises can help you to receive up to 5% extra marks

Grading Scale
The following is the grading scale used in tabulating assignment and final grades for this course

<table>
<thead>
<tr>
<th>Final Percentage Grade</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93 – 100</td>
<td>A</td>
</tr>
<tr>
<td>90 – 92.9</td>
<td>A-</td>
</tr>
<tr>
<td>88 – 89.9</td>
<td>B+</td>
</tr>
<tr>
<td>82 – 87.9</td>
<td>B</td>
</tr>
<tr>
<td>80 – 81.9</td>
<td>B-</td>
</tr>
<tr>
<td>78 – 79.9</td>
<td>C+</td>
</tr>
<tr>
<td>70 – 77.9</td>
<td>C</td>
</tr>
<tr>
<td>68 – 69.9</td>
<td>C-</td>
</tr>
<tr>
<td>60 – 67.9</td>
<td>D</td>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
</tr>
</tbody>
</table>

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

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.

Student Help Resources
- [Online Student Orientation](#)  
- [Blackboard Learn Help for Students](#)  
- [ITS Help Desk](#), Email: itshelp@odu.edu, Phone: Hampton Roads 757-683-3192 or Toll Free 877-348-6503  
- [Student Success Center](#)
Course Policies

Attendance
Since this is an on-line course, there is no mandatory attendance policy. However, students are expected to actively participate in the homework and quizzes.

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 - that is SHOUTING
- Avoid flaming—disrespectful language is unacceptable

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. 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.

“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
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.

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. Additional information is available at the OEA Website.

University Email & Electronic Messaging Systems Policies
Electronic messaging systems and electronic 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, and Information Technology Standard 09.1.0, Acceptable Use Standard. 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.

Hybrid and Online Learning
This course may have to modify its in-person instruction based on guidance from ODU and the Virginia Department of Health. It may entail moving to an online format if COVID-19 infections require such a move. Students should pay close attention to class announcements on Blackboard for changes to course delivery.

Face Coverings
Students are required to wear face coverings in accordance with the provisions set forth in ODU Policy 1006: COVID-19 (Interim Policy), especially in those instances when at least six (6) feet of physical separation cannot be maintained. The face covering must cover the mouth and nose and must be worn at all times in the building before, during, and after class. Students who have medical reasons that prevent wearing a face covering must meet with the University’s Office of Educational Accessibility for alternative course delivery solutions. Students who are disruptive in class about face coverings or physical social distancing may not remain in class and will be referred to the Office of Student Conduct & Academic Integrity.

COVID-19 Response
If you are experiencing any symptoms of a possible COVID-19 infection or have come into contact with someone with COVID-19, please do not come to class. In addition, you must report your symptoms using the COVID-19 daily check-in text app. If you show symptoms, immediately self-isolate and follow
If you need to quarantine or isolate, please inform all of your instructors so that we can adjust assignments and provide the level of support necessary to help you succeed in class. I will make accommodations to help you learn the course material and succeed in the class if you are unable to attend due to COVID-19. If necessary, I will suspend in-person classes for a 14-day period to reduce the possibility of community spread. If I show signs of COVID-19 infection and need to quarantine or isolate, class will be immediately moved online for a minimum of 14 days. Instruction will continue online until the quarantine/isolation period has ended and/or conditions warrant a return to in-person instruction.

Your best action, as a Monarch, is to protect your peers! If in doubt, immediately isolate and report symptoms of COVID-19.

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.