# COP 4610 Computer Operating Systems

## Course Syllabus

### 1. Course title/number, number of credit hours

| Computer Operating Systems – **COP 4610** | 3 credit hours |

### 2. Course prerequisites, corequisites, and where the course fits in the program of study

Prerequisites: CDA 3331C Introduction to Microprocessor Systems  
COP 3530 Data Structures and Algorithms Analysis

### 3. Course logistics

- **Term**: Spring 2014
- This is a classroom lecture course
- **Class location(s) and time(s):**
  - COP 4610 001 (20992) T/R 2:00-3:20 (FL404)
  - COP 4610 001 (26837) T/R 2:00-3:20 (EE012C)
  - COP 4610 001 (26838) T/R DisL

This course has no design content.

### 4. Instructor contact information

- **Instructor’s name**: Mrs. Tami Sorgente
  - Engineering East (EE-96) Bldg., Room 430 & 102
- **Office Hours**:
  - T 11:10 AM – 12:10 PM & 3:30 PM – 4:30 PM (EE 430)
  - W 9:30 AM – 3:30 PM (EE 102)
  - R 11:10 AM – 12:10 PM (EE 430)
  - 561-297-2673
  - tsorgent@fau.edu

### 5. TA contact information

- **TA’s name**: N/A
  - **Office address**: N/A
  - **Office Hours**: N/A
  - **Contact telephone number**: N/A
  - **Email address**: N/A

### 6. Course description

An introduction to what makes up a digital computer operating systems, includes developing an understanding of interrupts, interrupt handling, processes, process management, file and device management, and other features of control programs. A team design project is required.

### 7. Course objectives/student learning outcomes/program outcomes

- **Course objectives**
  - To provide fundamental concepts applied in modern operating systems, including process management, memory organization and management, and I/O management
  - To apply the design of collaborative processes and threads and their synchronization using semaphores
  - To understand the problem of deadlock and their solutions
  - To provide knowledge of basic principles of I/O management
  - To develop simulation program for evaluation of CPU schedulers
Student learning outcomes & relationship to ABET objectives
An ability to function on multidisciplinary teams.
An ability to communicate effectively.
An ability to apply design and development principles in the construction of software systems of varying complexity.

8. Course evaluation method

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam #1</td>
<td>22%</td>
</tr>
<tr>
<td>Exam #2</td>
<td>22%</td>
</tr>
<tr>
<td>Exam #3</td>
<td>22%</td>
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<tr>
<td>Programming simulation assignment</td>
<td>14%</td>
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<tr>
<td>Team research/ case study project</td>
<td>20%</td>
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<tr>
<td>Presentations (12%) / final project</td>
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</tbody>
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9. Grading scale

92 and above: "A"  
90-91: "A-"  
87-89: "B+"  
82-86: "B"  
80-81: "B-"  
77-79: "C+"  
72-76: "C"  
70-71: "C-"  
67-69: "D+"  
62-66: "D"  
60-61: "D-"  
59 and below: "F."

10. Policy on makeup tests, late work, and incompletes

Makeup tests are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student of participating in the exam. Makeup exam should be administered and proctored by department personnel unless there are other pre-approved arrangements.

Late work is not acceptable.

Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation and the student is currently passing the class, incomplete grades will not be given.

11. Special course requirements

Reading assignments will be given for each lecture – see the Class Notes section on Blackboard for topics covered in class and suggested reading. There will be four Homework assignments, which will not be graded, but will be discussed in class. There will be one programming simulation with a report, a case study term project and three exams. Details about exams, assignments and projects will be discussed in class and available on Blackboard.

12. Classroom etiquette policy

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

13. Disability policy statement

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton campus, SU 133 (561) 297-3880 and follow all OSD procedures.

14. Honor code policy
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at [www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf](http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf)

15. Required texts/reading


16. Supplementary/recommended readings

17. Course topical outline, including dates for exams/quizzes, papers, completion of reading

1. Functions and characteristics of operating system  
2. Process management - processes and threads  
3. Resource allocation and scheduling  
4. Process collaboration and synchronization  
5. Deadlocks and their prevention  
6. Memory organization and management  
7. Virtual memory organization  
8. Virtual memory management  
9. Input/ output management and disk scheduling  
10. Case studies

This course uses Blackboard: [http://bb.fau.edu](http://bb.fau.edu) for notes, assignments, announcements and all course information (restricted to enrolled students)  
Students need to check FAU email regularly

The last day to drop and receive a “W” is Friday, February 28, 2014

Tentative exam dates, project and assignment due dates

Exam #1: R 02/13/14  
Exam #2: R 03/27/14  
Exam #3: T 04/22/14

CPU program Simulator and Report: due: T 03/11/14  
Team Research Case study: due T 04/29/14