



Department of Electrical Engineering & Computer Science
COP 4331 002 – Processes of Object Oriented Software
Fall 2019

Lecturer: Rick Leinecker
Email: Richard.Leinecker@ucf.edu

Lecture Meetings: Monday and Wednesday 7:30PM-8:45PM in CB2 206

Office Hours: Monday and Wednesday 3:00PM-4:15PM in HEC 357

Prerequisites: COP 3503C, COT 3960 (Foundation Exam - for Computer Science students)

Credit Hours: 3

Teaching Assistant: Furkan Çimen <furkan@Knights.ucf.edu> Labs
Tim Garrett powerkilroy@knights.ucf.edu Grading
For questions regarding assignment and test grading, contact TA

Recommended textbook:

Shari Lawrence Pfleeger and Joanne M. Atlee, "Software Engineering: Theory and Practice", 4th Edition, Prentice Hall, 2010

Reference Books:

1. Perdita Stevens and Rob Pooley, "Using UML, Software Engineering with Objects and Components", 2nd Edition, Addison-Wesley, 2006.
2. James Rumbaugh, Ivar Jacobson, and Grady Booch, "The Unified Modeling Language Reference Manual", 2nd Edition, 2005.
3. Martin Fowler, "UML Distilled: Applying the Standard Object Modeling Language", 2nd Edition, Addison-Wesley, 2000.
4. Readings from classical and current software engineering literature (software engineering journals available via UCF electronic library resources)

Course Assessment Outcomes:

This course is designed for undergraduate computer science and computer engineering students.

1. The students shall be able to construct UML diagrams of the following types: Use Case Diagram, Class Diagram, Activity Diagram, Collaboration Diagram, State Transition Diagram, Sequence Diagram and Data Flow Diagram
2. The students shall be able to work in a group environment.
3. The students shall be able to work on a project for a client, performing all the steps associated with the object-oriented software development life cycle including elicitation of the requirements from a client, preparation of software requirements specification, project management plan and test plan of a software system.
4. The students shall be able to write technical high-level design and detailed design of a software system.
5. The student shall be able to produce implementation of design and write user's manual including build instructions of a software system.
6. The students shall be able to prepare and successfully give oral presentation of a software system design and operation of the class project deliverables.

Proposed Schedule:

Topic

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|--|
| Introduction / What is Software Engineering? |
| Stacks: WISA and Lamp |
| Stacks: MERN |
| Gathering Requirements |
| Project Management |
| Gathering Requirements |
| 5 Days of Presentations |
| Debugging and Android JSON I/O |
| Unit Testing 1 & 2 (two class periods) |
| 5 Days of Presentations |
| Things I Wish I Knew |
| Writing Secure Code |
| 1 Day Open |
| 3 Days of Presentations (this includes the final exam day) |

Grading will be as follows:

- 2 Tests – 20% total
- Assignments – 11% total
- Discussions – 11% total
- Small Project – 7%
- Large Project Pitch – 7%
- Large Project – 20%
- Attendance – 10%
- Required lab attendance – 14%

Test Schedule:

1. 10-14-2019
2. 11-20-2019

Final Exam Time 12-11-2019 (Large Project Presentations):

Attendance: Attendance is required and highly recommended and counts for 10 percent.
Lab attendance counts for a total of 14 percent.

Grading Scale:

| | |
|----------|----|
| 94-100 | A |
| 90-93.99 | A- |
| 87-89.99 | B+ |
| 84-86.99 | B |
| 80-83.99 | B- |
| 77-79.99 | C+ |
| 74-76.99 | C |
| 70-73.99 | C- |
| 67-69.99 | D+ |
| 64-66.99 | D |
| 60-63.99 | D- |
| 0-59.99 | F |

Academic Dishonesty: UCF's Golden Rule <http://goldenrule.sdes.ucf.edu/> will be strictly applied.

Important Dates:

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|--------------------|-----------------------------|
| 9-26-2019 | First day of class |
| 9-2-2019 | Memorial day |
| 9-23 through 10-7 | Small project presentations |
| 10-23 through 11-6 | Large project pitches |
| 11-11-2019 | Veteran's day |
| 11-27-2019 | Thanksgiving Wednesday |
| 12-2 through 12-11 | Large project presentations |

Makeups:

Projects and discussions are not accepted late since you have them in advance

Tests can only be made up under hardships with the permission of the instructor

If you miss any presentation without prior approval, you will receive a zero for that presentation