

Course Syllabus

CNT 4714: Enterprise Computing

Course Syllabus

Department of Computer Science, CECS

3 Credit Hours

Instructor Information

- Instructor: Dr. Mark Llewellyn
- Office Location: HEC 236
- Office Hours: Monday & Wednesday 2:30-4:30pm and Tuesday & Thursday 2:00-3:00pm
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Teaching Assistants

- GTA(s): Sai Vinherkar and Aravind Narayanan
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Course Information

- Term: Fall 2019
- Course Number & Section: CNT 4714.0001
- Course Name: Enterprise Computing
- Credit Hours: 3
- Class Meeting Days: Monday, Wednesday and Friday
- Class Meeting Time: 1:30-2:20 PM
- Class Location: HPA1 112
- Course Modality: Face-to-Face

Enrollment Requirements

Course Prerequisites (if applicable): COP 3502C, COP 3330, MAD 2104, and CGS 3269

Course Co-requisites (if applicable): None

Other Enrollment Requirements (if applicable): None

Course Description

This course will expose you to the world of heterogeneous enterprise computing architectures with an emphasis on networked, distributed applications using a variety of technologies.

Course Materials and Resources

Required Materials/Resources

- There are no required textbooks for this course. I will place a number of different resources in each course module, primarily PowerPoint presentations, but other resources as I develop more of the course. I will also provide a number of different online resources that will provide additional information and details that will assist you in the projects.

Optional Materials/Resources

- None

Student Learning Outcomes

The goals and objectives of this course are:

1. Be able to create and debug multi-threaded applications in Java.
2. Be able to develop enterprise solutions using servlet- and JSP-based technologies.
3. Be able to develop and administer distributed server-based applications.
4. Be able to develop PHP-based web applications.
5. Be able to develop web-based applications under the JEE framework.
6. Distributed and Cloud computing concepts.
7. Public and private clouds.
8. Cloud security issues.

The primary course topics, designed to help you achieve the course objectives listed above, are:

1. Multi-threaded applications. Communication and synchronization amongst threads.
2. Networking issues for distributed systems.
3. Database systems backend connectivity. JDBC and other technologies.
4. Multi-tier distributed enterprise applications.
5. Apache HTTP Server, Apache Tomcat Server, GlassFish Server. Server administration issues
6. Servlet technology.
7. JSP technology.
8. PHP technology.
9. Distributed web applications for the enterprise.
10. Cloud-based distributed enterprise applications.

Course Activities

- This is a project-oriented course. There are no exams for this course.

- You will complete a number of different projects each of which is designed to provide you some hands-on exposure to website design and implementation.
- Projects will vary in range and scope throughout the course.
- All of the projects are to be done individually. There are no group projects.
- You will download and install various application and database servers during the course and you will need the latest version of Java. At this point if you do not have the latest version of Java, go ahead and setup both the JDK and JRE environments. I will typically show Java-based application development using Eclipse, but NetBeans is also a suitable IDE for development of course projects as are several others.
- All of the software that you will need for this course is freely available on the net and you will not need to buy any software for this course. A standard laptop or desktop system should be capable of supporting all the applications you will be running. No specialized hardware will be required.

Project Submissions

- All project assignments will be submitted via WebCourses by 11:59pm on or before their respective due dates.
- Each assignment will include a two-day late submission period. During this late submission period you may still submit your assignment, however points will be deducted for missing the assignment deadline. Up to 24 hours late, will result in a 15% reduction in points. More than 24 hours late (up to 48 hours late) will result in a 30% reduction in points.
- At the end of the late submission period (48 hours after the original submission deadline), the assignment will be locked and no further submissions will be possible.

Note: The failure to submit a project will result in a zero score for that project and an additional one letter grade reduction of your final course grade for each project without a submission over the course of the semester. For example if your final grade percentage is 83.5% and you failed to submit project 2, your final course grade would be a C, not a B. If you also failed to submit project 5, then your final course grade would drop to a D.

Attendance/Participation

Attendance is not required for this course and I will not be taking attendance. However, past experience has shown that students who regularly attend the class will do a better job with the projects and probably take less time to complete each project than those who do not attend class regularly.

Make-up Exams and Assignments Policy

Per university policy, you are allowed to submit make-up work (or an equivalent, alternate assignment) for university-sponsored events, religious observances, or legal obligations (such as jury duty). If this participation conflicts with your course assignments, I will offer a reasonable opportunity for you to complete missed project deadlines. Please contact me ahead of time to notify me of upcoming needs.

Assessment and Grading Procedures

Project Weights: Each project will be assigned a number of points, reflective of the project's complexity and time requirements. Some projects may have bonus point options for implementing techniques beyond the basic project description. Projects will each have roughly the same number of points (not counting bonus points)

All of your individual project scores will be summed and your course grade will be determined as a percentage of the maximum possible points attainable according to the table below. Plus/minus grading will not be used in this course.

Note: The failure to submit a project will result in a zero score for that project and an additional one letter grade reduction of your final course grade for each project without a submission over the course of the semester. For example if your final grade percentage is 83.5% and you failed to submit project 2, your final course grade would be a C, not a B. If you also failed to submit project 5, then your final course grade would drop to a D.

Course Grade

Percentage of Maximum Points	Course Grade
90% and above	A
80% up to 90%	B
70% up to 80%	C
60% up to 70%	D
Less than 60%	F

Course Schedule


The course schedule will be developed as the semester progresses. Follow the course closely by checking the WebCourses Calendar page daily. Any changes to the schedule or project due dates will be reflected here. In addition, any changes to project due dates or project requirements would be provided via a WebCourses Announcement as well.

Policy Statements

Academic Integrity



Students should familiarize themselves with [UCF's Rules of Conduct](http://osc.sdes.ucf.edu/process/roc) [_ \(http://osc.sdes.ucf.edu/process/roc\)](http://osc.sdes.ucf.edu/process/roc). According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

- *Unauthorized assistance*: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
- *Communication to another through written, visual, electronic, or oral means*: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
- *Commercial Use of Academic Material*: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
- *Falsifying or misrepresenting* the student's own academic work.
- *Plagiarism*: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
- *Multiple Submissions*: Submitting the same academic work for credit more than once without the express written permission of the instructor.
- *Helping another violate* academic behavior standards.


For more information about Academic Integrity, students may consult [The Center for Academic Integrity](https://academicintegrity.org/)  [\(https://academicintegrity.org/\)](https://academicintegrity.org/).

For more information about plagiarism and misuse of sources, see “[Defining and Avoiding Plagiarism: The WPA Statement on Best Practices](http://wpacouncil.org/node/9)”  [_ \(http://wpacouncil.org/node/9\)](http://wpacouncil.org/node/9)”.

Responses to Academic Dishonesty, Plagiarism, or Cheating




Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, [The Golden Rule](http://goldenrule.sdes.ucf.edu/docs/goldenrule.pdf).  [_ \(http://goldenrule.sdes.ucf.edu/docs/goldenrule.pdf\)](http://goldenrule.sdes.ucf.edu/docs/goldenrule.pdf) UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to academic misconduct. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see <http://goldenrule.sdes.ucf.edu/zgrade>  [_ \(http://goldenrule.sdes.ucf.edu/zgrade\)](http://goldenrule.sdes.ucf.edu/zgrade).

Course Accessibility Statement

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need disability-related access in this course should contact the professor as soon as possible. Students should also connect with [Student Accessibility Services](http://sas.sdes.ucf.edu/)  [\(http://sas.sdes.ucf.edu/\)](http://sas.sdes.ucf.edu/) (Ferrell Commons 185, sas@ucf.edu <mailto:sas@ucf.edu>), phone (407) 823-2371). Through Student Accessibility Services, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential access and accommodations that might be reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student.

Campus Safety Statement

Emergencies on campus are rare, but if one should arise in our class, everyone needs to work together. Students should be aware of the surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.
- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Please make a note of the guide's physical location and consider reviewing the online version at http://emergency.ucf.edu/emergency_guide.html  (http://emergency.ucf.edu/emergency_guide.html).
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, we may need to access a first aid kit or AED (Automated External Defibrillator). To learn where those items are located in this building, see <http://www.ehs.ucf.edu/workplacesafety.html>  (<http://www.ehs.ucf.edu/Workplacesafety>) (click on link from menu on left).
- To stay informed about emergency situations, sign up to receive UCF text alerts by going to my.ucf.edu  (<http://my.ucf.edu>) and logging in. Click on "Student Self Service" located on the left side of the screen in the tool bar, scroll down to the blue "Personal Information" heading on your Student Center screen, click on "UCF Alert," fill out the information, including your e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- Students with special needs related to emergency situations should speak with their instructors outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video.
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Deployed Active Duty Military Students

If you are a deployed active duty military student and feel that you may need a special accommodation due to that unique status, please contact your instructor to discuss your circumstances.

Copyright

This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder.

Third-Party Software and FERPA

During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on a public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal

reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have any concerns about this, please contact your instructor.