CEN 4031   Syllabus

1. Course Information

Prefix	CEN
Number	4031
Section	701
Title	Software Engineering Concepts for Information Technology
Credit Hours	3

2. Logistics

Semester	Spring 2017
Meeting Place	Canvas online (https://my.usf.edu)
Delivery Method	Online Asynchronous
Meeting Time	No mandatory class meeting, except for 1 on-campus exam.
Final Exam (on-campus)	Date/Time: TBD Location: TBD

* All exams are closed-book, closed-notes, unless otherwise specified by the instructor.

3. Instructor

Name	Isabela Moura Hidalgo, Ph.D.
Email	imoura@usf.edu
Office Location	ENB 301-B
Office Hours	(1) In the Virtual Course Room on Canvas, Fridays 9:30-10:30am.
	(2) In the office, by appointment.
	(3) For faster answers, you are encouraged to post all questions in the "Raise your Hand" discussion on Canvas.
Department	Computer Science & Engineering
	http://www.cse.usf.edu/
College	College of Engineering
	http://www.usf.edu/engineering/
Teaching Assistant (TA)	TBD
TA Office Hours	TBD

4. Course Description

Catalog Description	Concepts associated with production of high quality software through the use of software engineering concepts and practices are covered. In addition to conceptual presentations, students are required to participate in software development team projects.
Pre-requisites	EEL 4854: Data Structures and Algorithms for Information Technology.

5. Course Objectives

The primary objective of this course is to introduce the process employed by large organizations to develop high-quality software systems. Upon successful completion, students will be able to:

1. Understand requirements engineering, particularly the elicitation, analysis, specification, and validation of requirements.
2. Understand how all forms of design fit within the software engineering life-cycle.
3. Become familiar with different design roles, principles, and practical considerations.
4. Understand the effects and importance of software architecture and detailed design in large-scale systems.
5. Understand software testing and different approaches for verification and validation.

6. Methods of Instruction

Textbook study, hands-on exercises, online discussions with classmates and instructors, asynchronous recorded lectures, and web research. This instructional approach requires the student to take a self-motivated and active approach to learning, In order to be successful, the student must develop study habits vital to learning in an online environment, including: being organized, completing tasks ahead of time, comprehending technical texts and written instructions, and clearly expressing ideas in writing. Students are expected to watch the video presentations weekly, take their own notes during the presentation, and actively contribute to the team project. Team members are expected to work remotely using the online collaboration tools on Canvas.

7. Content Outline

1. Software Process Structure
2. Software Process Models
3. Agile Development
4. Understanding Requirements
5. Scenario-Based Requirements Modeling
6. Class-Based Requirements Modeling
7. Design Concepts
8. Architectural Design
9. Component-Level Design
10. User Interface Design
11. Quality Concepts
12. Software Testing Strategies
13. Deployment and Maintenance
14. Project Management

8. Readings

Required Textbook	Software Engineering: A Practitioner's Approach, 8th Edition By Roger S. Pressman and Bruce R. Maxim McGraw-Hill Education, 2014 ISBN-13: 978-0078022128; ISBN-10: 0078022126

9. Grading Scale

Grade	Score		Grade	Score		Grade	Score		Grade	Score
A+	> 96		B+	87 - 89		C+	77 – 79		D+	67 – 69
A	93 – 96		B	83 – 86		C	73 – 76		D	63 – 66
A-	90 – 92		B-	80 – 82		C-	70 – 72		D-	60 – 62
									F	< 60

Grade cut-offs may be adjusted downwards at the discretion of the instructor.

10. Point Distribution

Grade Component	Weight
Discussions	10%
Quizzes	30%
Project	30%
Final Exam	30%

11. Grading Policies

Tracking your grades: Grades will be posted on the Canvas Gradebook.

Late work and make-up policies: No credit or make-up for missed exams, quizzes, or assignments. You are responsible for attempting your submissions **well ahead of time**, to allow you to seek help should a technical issue occur. Serious situations will be considered as exceptions to this policy only with verifiable justifications (e.g. police, medical reports, etc).

Extra Credit: There will be no extra credit assignments in this course.

Circumstances for assigning an Incomplete (I): A request from students to be assigned an "I" grade will be considered only in case of severe hardship, verifiable by USF personnel and of an emergency nature.

S/U options: Not available

Plagiarism Detection: The instructor reserves every right to use **any possible mean** to assess the academic honesty of any student's submission at any time without having to provide notice or details regarding the means used to do so. This may include, but is not limited to, (automatic) comparisons to other sources. Punishment for academic dishonesty will depend on the seriousness of the offense and may include receipt of a numerical value of zero on the item submitted. It is the option of the instructor to assign the student a grade of F or FF (the latter indicating academic dishonesty) in the course.

12. Technology Requirements

Canvas is the learning management system utilized in this course. Access to Canvas is provided by the University of South Florida and requires a **USF NetID**. In order to sign up for a NetID, students must have a USF ID Number. Please visit http://www.usf.edu/it/services/netid.aspx is you need to activate your NetID. Students are expected to know how to use Canvas upon enrolling in this course. For Canvas access instructions, visit: https://usflearn.instructure.com/courses/900767

Personal Computer: Students are required to access Canvas from a device with a working webcam and microphone. Access to the Internet (World Wide Web) is required. Students are expected to have a fast and reliable access to the internet allowing them to engage successfully in all online learning activities. Use of the Google Chrome browser is recommended for compatibility with the Canvas system.

Technology Issues: This is an online course; we are using technology. Technology is not 100% reliable. **Do not wait the last minute to submit an assignment.** Make sure you schedule your work to be able to recover from last minute technical difficulties.
   - Verify the contents of the files you are about to upload for an assignment BEFORE and AFTER uploading them. Keep a local copy of your files until the end of the semester.
   - Learn how to submit assignments via Canvas during the first week of this course.
   - Late work is not accepted.

13. First Day Attendance Policy

Students are required to attend the first class meeting of courses for which they registered. Names of students who register prior to the first day of the term are printed on the first class roll for each course section. The first class roll is used by professors to drop students who do not attend the first day of classes. Students unable to attend the first class meeting due to circumstances beyond their control must notify the instructor or the department prior to the first class meeting to request waiver of the first class attendance requirement. **This course, being online asynchronous, will not have a mandatory on-campus first class meeting. Instead, taking the first week's survey by the deadline specified by your instructor will allow her to establish the "online first day attendance".**

Students who add courses or late-register during the first week of classes will **not** be on the first class roll and, therefore, will not be dropped for non-attendance by the instructor. Students are responsible for dropping undesired courses in these categories by the 5th day of classes to avoid fee liability and academic penalty.

14. Other Class Policies

All students must review the syllabus and the requirements including the online terms and video testing requirements to determine if they wish to remain in the course. Enrollment in the course is an agreement to abide by and accept all terms. Any student may elect to drop or withdraw from this course before the end of the drop/add period.

Online Proctored Exams: Online exams and quizzes within this course may require online proctoring. Therefore, students will be required to have a webcam (USB or internal) with a microphone when taking an exam or quiz. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, students should select private spaces for the testing. The University library and other academic sites at the University offer secure private settings for recordings and students with concerns may discuss location of an appropriate space for the recordings with their instructor or advisor. Students must ensure that any recordings do not invade any third party privacy rights and accept all responsibility and liability for violations of any third party privacy concerns. Setup information will be provided prior to taking the proctored exam. For additional information about online proctoring you can visit the online proctoring student FAQ at http://www.usf.edu/innovative-education/resources/student-services/online-proctoring.aspx.

On-Campus Proctored Exams: Courses in the online IT program may require on-campus proctored exams. Any student who is unable to attend the exams, due to residing in a remote location, must notify the instructor by the end of the third week of classes. Arrangements will be made with USF Testing Services so that these students can take off-campus proctored exams.

Attendance: Attendance is optional but strongly recommended. First day attendance is mandatory (see previous section). Students are expected to access the Canvas site daily to check for new announcements, material, or updates.

Communication: Every enrolled USF student receives an official USF email account that ends with "mail.usf.edu". All official USF correspondence to students is sent to that account. You are responsible to regularly check email directed to your official USF email addresses for any announcements. Use your USF email account to send emails, or the Canvas messaging system. Emails sent to the instructor from another email address may be filtered as *spam* and be ignored. Make sure your email always references the course you are enrolled in, along with the context of your question; e.g. "I am taking CEN 4031 and I have problems with the Module 2 quiz, question #4". In all communications (email, discussion board, face-to-face), be polite and respectful to your interlocutor at all times, regardless of their rank; e.g. student, TA, instructor, staff…

Intellectual Property: Reproduction of any part of the videos or any material provided by the instructor is not permitted without instructor's authorization. Course material may not be sold under any circumstance.

Right to Modify the Syllabus: The instructor reserves the right to modify the course syllabus at any time during the course to address changes needed in content, course outline, exam dates, etc.

15. University Policies

While advisors, directors, department chair, and campus administrators are available to assist students in meeting academic regulations, policies and procedures, it is ultimately the student's responsibility to be acquainted with all academic regulations, policies and procedures, and to meet all requirements.
- University standard policies: http://www.ugs.usf.edu/catalogs.htm
- Undergraduate Catalog: http://www.ugs.usf.edu/catalogs/catdl.htm
- Graduate Catalog: http://www.grad.usf.edu/catalog.php

Religious Observances*:* Students who anticipate the necessity of being absent from on-campus exams, or unable to complete online assignments, due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second week of classes. See http://ugs.usf.edu/catalogs/1516/pdf/ReligiousDays.pdf.

Academic Support and Accommodations for Students with Disabilities: Students in need of academic accommodations for a disability may consult with Students with Disabilities Services to arrange appropriate accommodations. Students are required to give reasonable notice prior to requesting an accommodation. See http://www.usf.edu/student-affairs/student-disabilities-services/about-us/index.aspx.

Student Code of Conduct: The University of South Florida values a community based on the principles of integrity, civility, and respect. As such, the USF community expects students to behave in a manner that supports these principles. The Student Code of Conduct is a document which describes behavior that is counteractive to these principles and how the university will hold students accountable to those inappropriate behaviors. See http://regulationspolicies.usf.edu/regulations/pdfs/regulation-usf6.0021.pdf.

Academic Dishonesty: Plagiarism consists of intentionally or carelessly presenting the work of another as one's own. The assignments, quizzes, and exams must be completed without giving or accepting assistance from other people. **Any programming code copied from another source must be credited as such.** Open source software used must maintain all headers and other information as required by the Open source license used. Students are expected to know the University's policies and procedures regarding academic integrity. See http://www.ugs.usf.edu/pdf/cat1213/08ACADEMICPOL.pdf.

Grade Dispute/Student Academic Grievance Procedures: *See http://www.ugs.usf.edu/policy/StudentAcademicGrievanceProcedures.pdf*

Gender-Based Crimes: USF has a commitment to the safety and well-being of our students. Please be aware that educators must report incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence that come to their attention. I am required to report such incidents s the Office of Student Rights and Responsibilities or the Office of Diversity, Inclusion, and Equal Opportunity can investigate the incident or situation as a possible violation of the USF Sexual Misconduct/Sexual Harassment Policy and provide assistance to the student making the disclosure. **If you disclose any of these situations in class, in papers, or to an instructor personally, the instructor is required to report the disclosure and will assist you in accessing available resources.** The Center for Victim Advocacy and Violence Prevention (813-974-5757) is a confidential resource where you can talk about such situations and receive assistance without the incident being reported. Additional confidential resources on campus are: the Counseling Center (813-974-2831) and Student Health Services (813-974-2331). These resources can help you without having to report your situation, unless you request that they make a report.