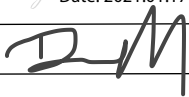
 FLORIDA ATLANTIC UNIVERSITY	COURSE CHANGE REQUEST Undergraduate Programs		UUPC Approval <u>3-29-21</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Comp & Electrical Eng and Comp Science College Engineering and Comp Science		
Current Course Prefix and Number CEN 4010		Current Course Title Principles of Software Engineering	
<i>Syllabus must be attached for ANY changes to current course details. See Checklist. Please consult and list departments that may be affected by the changes; attach documentation.</i>			
Change title to: Change prefix From: _____ To: _____ Change course number From: _____ To: _____ Change credits* From: _____ To: _____ Change grading From: _____ To: _____ Change WAC/Gordon Rule status** Add <input type="checkbox"/> Remove <input type="checkbox"/> Change General Education Requirements*** Add <input type="checkbox"/> Remove <input type="checkbox"/> <small>*Review Provost Memorandum</small> <small>**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See WAC Guidelines.</small> <small>***General Education criteria must be indicated in syllabus and approval attached to this form. See GE Guidelines.</small>		Change description to: Change prerequisites/minimum grades to: COP 3530 or COP 3410 Change corequisites to: Change registration controls to: Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).	
Effective Term/Year for Changes: Fall 2021		Terminate course? Effective Term/Year for Termination:	
Faculty Contact/Email/Phone Hari Kalva, hkalva@fau.edu			
Approved by Hanqi Zhuang Department Chair _____ College Curriculum Chair _____ College Dean _____ UUPC Chair _____ Undergraduate Studies Dean _____ UFS President _____ Provost _____		Digitally signed by Hanqi Zhuang Date: 2021.01.17 15:09:38 -05'00' 	Date _____ <u>3-10-21</u> <u>3/11/21</u> <u>3-29-21</u> <u>3-29-21</u> _____ _____

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

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1. Course title/number, number of credit hours	
Principles of Software Engineering/CEN 4010	3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study	
COP 3530 or COP 3410	
3. Course logistics	
Term: Fall 2013 This is a classroom lecture course Class Location and Time: FL 427; Mondays and Wednesdays: 2:00pm – 3:20pm	
4. Instructor contact information	
<i>Instructor's name</i> <i>Office address</i> <i>Office Hours</i> <i>Contact telephone number</i> <i>Email address</i>	Dr. Shihong Huang Engineering East (EE 96) Room 434 Monday and Wednesday: 11:00am – 2:00pm or by appointments 561-297-1275 shihong@fau.edu
5. TA contact information	
<i>TA's name</i> <i>Office address</i> <i>Office Hours</i> <i>Contact telephone number</i> <i>Email address</i>	N/A
6. Course description	
<p>Catalog Description:</p> <p>An introduction to the basic principles and practices of software engineering. Emphasis will be placed on programming language support for software engineering principles, especially techniques for data abstraction, code reusability and "programming in the large". Other topics include software life-cycle models; general design, Implementation, and testing issues; specification and design methodologies; and model-based approaches to software design. Students will complete a team project involving written and oral presentations.</p> <p>Course Special Features:</p> <p>The objective of this course is to expose students to a wide range of software engineering concepts and state-of-the-art technologies. In addition to software engineering acumen, students are expected to develop excellent writing and presentation skills, and gain an appreciation for ethical and professional software engineering, demonstrates and understanding of the social, legal issues related to computing, and gain knowledge of the professional ethics codes for computer engineers. The goal is to prepare students for real-world software engineering challenges. (For detailed objectives please refer to each lecture notes).</p>	

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The course project will focus on Global and Distributive Software Development. To give students a real-world experience of global and distributed software development, we collaborate on the course project with San Francisco State University (SFSU), and University of Applied Science, Fulda Germany. Students team up with their global team members from SFSU, and have very strict and intense deliverables with different milestones.

Two of the important components of this course are to focus on professionalism and ethics. To emphasize the importance of engineering code of conduct and ethnics, students will work in groups – local groups that consisted of team members from FAU, and global groups, which consisted of team member from FAU and SFSU. During the course of different milestones and deliverables, students will have close interaction with team members and instructor. During which process, students will learn and demonstrate their understanding of social and legal issues related to computing, and the need for professional ethics codes for computer engineers, and learn to behave professionally when dealing with people with different cultures and different backgrounds.

7. Course objectives/student learning outcomes/program outcomes

<i>Course objectives (based on ABET criteria)</i>	<p>2. Proficiency in the areas of software design and development, data structures, and operating systems</p> <p>3. An ability to plan and execute an engineering design to meet an identified need</p> <p>6. An understanding of the overall human context in which engineering and computing activities take place</p>
<i>Student learning outcomes & relationship to ABET a-k objectives</i>	<p>(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability</p> <p>(e) an ability to identify, formulate, and solve engineering problems</p> <p>(f) an understanding of professional and ethical responsibility</p> <p>(g) an ability to communicate effectively</p> <p>(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice</p>

8. Course evaluation method

<table style="width: 100%;"> <tr> <td>Course Projects</td> <td style="text-align: center;">50</td> <td style="text-align: center;">%</td> </tr> <tr> <td>Midterm</td> <td style="text-align: center;">25</td> <td style="text-align: center;">%</td> </tr> <tr> <td>Final Examination</td> <td style="text-align: center;">25</td> <td style="text-align: center;">%</td> </tr> </table>	Course Projects	50	%	Midterm	25	%	Final Examination	25	%	<i>Note:</i> The minimum grade required to pass the course is C.
Course Projects	50	%								
Midterm	25	%								
Final Examination	25	%								

9. Course grading scale

Grading Scale:
90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79: "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."

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

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Need proper university accepted documents to have permissions on makeup tests, late work and incompletes
11. Special course requirements
N/A
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
15. Required texts/reading
Software Engineering (9th Edition) by Ian Sommerville (Addison-Wesley) march 2010; ISBN-10: 0137035152
16. Supplementary/recommended readings
Lecture notes, working environments, tooling, and other references will be posted on Blackboard
17. Course topical outline, including dates for exams/quizzes, papers, completion of reading

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Tentative course topic outline (subject to change depending on lecture progresses):

1. Socio-technical systems (organizations, people and computer systems)
2. Professionalism and ethics
3. Software process models
4. Process iteration and process activities
5. The Rational Unified Process
6. Extreme Programming
7. Project management activities
8. Project planning and scheduling
9. Risk management
10. Software productivity
11. Cost-Effort estimation techniques
12. Algorithmic cost modeling
13. Software Requirements Engineering
14. Functional and non-functional requirements
15. User requirements and system requirements
16. Software Requirements documentation
17. Feasibility studies
18. Requirements elicitation and analysis techniques
19. Requirements validation and verification
20. Formal specification of requirements
21. Architecture design decisions
22. System organization styles
23. Modular decomposition styles
24. Client-server architectures and distributed architectures
25. Software testing techniques
26. CASE tools in software engineering

Project Assignments with tentative dates (subject to change depending on schedule):

1. Milestone 0: Learn and installing collaborative and development tools. Individual, 3rd week
2. Milestone 1: High Level Specs, UI specs and Use cases. 5th week
3. Milestone 2: More detailed specs. 7th week
4. Milestone 3: First prototype and feedback; final commitment (meeting with instructors). 10th week
5. Milestone 4: Beta delivery, QA plans and usability feedback, final functionality check. 12th week
6. Milestone 5: Final Project demo and delivery. 15th week

Exams:

1. Midterm: Monday October 7th, 2013; 2:00pm – 3:20pm
2. Final exam: Wednesday December 11, 2013; 1:15pm – 3:45pm