FLORIDA ATLANTIC UNIVERSITY

COURSE CHANGE REQUEST
Undergraduate Programs

Department CEECS

College CoE&CS

UUPC Approval _____
UFS Approval _____
SCNS Submittal _____
Confirmed _____
Banner Posted _____
Catalog _____

***Current* Course Prefix and Number**	EGN4952C	***Current* Course Title**	Engineering Design II

*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.*

Change title to:
RI: Engineering Design II

Change prefix
From: **To:**

Change course number
From: **To:**

Change credits*
From: **To:**

Change grading
From: **To:**

Change WAC/Gordon Rule status**
Add ☐ **Remove** ☐

Change General Education Requirements***
Add ☐ **Remove** ☐

*Review Provost Memorandum
**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See WAC Guidelines.
***General Education criteria must be indicated in syllabus and approval attached to this form. See GE Guidelines.

Change description to:
Continuation and completion of multidisciplinary team projects initiated in EGN 4950C. This is a research intensive course.

Change prerequisites/minimum grades to:

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:	Spring 2021	**Terminate course? Effective Term/Year for Termination:**	

Faculty Contact/Email/Phone Hanqi Zhuang/zhuang@fau.edu/7-0511

Approved by	***Date***
Department Chair Hanqi Zhuang	08/24/2020
College Curriculum Chair Dan Meeroff	08/24/2020
College Dean	9/4/20
UUPC Chair Jerry Haky	9-15-20
Undergraduate Studies Dean Edward Pratt	9-15-20
UFS President	
Provost	

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

Department of Computer and Electrical Engineering and Computer Science
Florida Atlantic University
Course Syllabus

1. Course title/number, number of credit hours	
RI: Engineering Design II (EGN 4952C)	3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study	
Prerequisites: RI: Engineering Design I (EGN 4950C)	
3. Course logistics	
Term: Spring 2020 This is a capstone design course with design and implementation components *Class location and time*: GS117	
4. Instructor contact information	
Instructor's name *Office address* *Office Hours* *Class time:* *Contact telephone number* *Email address*	Dr. Hari Kalva/Dr. Hanqi Zhuang Engineering East Bldg., EE440/EE403A TBA Online/ 561-297-0511/561-756-5372 hari.kalva@fau.edu/zhuang@fau.edu
5. TA contact information	
TA's name *Office address* *Office Hours* *Contact telephone number* *Email address*	TBA
6. Course description	
Continuation and completion of multidisciplinary team projects initiated in EGN 4950C. This is a research intensive course. *This course contains multiple assignments designed to help students conduct research and inquiry at an intensive level. If this class is selected to participate in the university-wide assessment program, students will be asked to complete a consent form and submit electronically some of their research assignments for review. Visit the Office of Undergraduate Research and Inquiry (OURI) for additional opportunities and information at http://www.fau.edu/ouri.*	
7. Course objectives/student learning outcomes/program outcomes	
Course objectives	The students will work together in the team environment to bring the project to completion. This will involve the use of engineering analysis and design methodologies. The course will improve their team participation and management skills, along with their written and oral communication skills. It will make the students aware of both safety and environmental issues.
Student learning outcomes & relationship to ABET 1-7 objectives	Covers all objectives (1-7).
8. Course evaluation method (tentative)	

• Individual Assignments 15%
  ○ Individual Reports
  ○ Meet with Instructor
• Team Assignments 65%
	Note: Peer/instructor evaluation score may be used partially to scale the team activities of individual students.

- Two Project Milestone Demo (Reports/Video)
- Final Presentation Video/Poster/Summary Etc.
- Final Project Report
- Final Project Demo

- Peer/Instructor Evaluation 20%

9. Course grading scale

Grading Scale:
90 and above: "A, A-", 80-89: "B+, B, B-", 60-79: "C+, C, C-", 40-59: "D+, D, D-", 0-39: 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 incomplete grades will not be given.

11. Special course requirements

- *Projects are expected to achieve all six of the following OURI Student Learning Outcomes (SLOs):*
  - *SLO 1: Knowledge. Students are expected to demonstrate content knowledge, and knowledge of core principles and skills.*
  - *SLO 2: Formulate Questions. Students are required to formulate research questions, scholarly or creative problems in a manner appropriate to the planning discipline.*
  - *SLO 3: Plan of Action. Students are expected to develop and implement a plan of action to address research and inquiry questions or scholarly problems.*
  - *SLO 4: Critical Thinking. Students are expected to apply critical thinking skills to evaluate information, their own work, and the work of others.*
  - *SLO 5: Ethical Conduct. Students are expected to identify significant ethical issues in research and inquiry and/or address them in practice.*
  - *SLO 6: Communication. Students will convey all aspects of their research and inquiry (processes and/or products) in appropriate formats, venues, and delivery modes.*

OURI Student Learning Outcomes (SLO)	Description of Assignment Requirements and Assessments
SLO 1: Knowledge	Students will demonstrate a fundamental basis of discipline-specific knowledge required for effective professional practice in the fields of computer and electrical engineering. Students will also demonstrate working knowledge of tools and practical skills needed to analyze engineering design problems related to multiple realistic constraints, such as environmental issues, engineering economics, design codes, ethics, and/or other contemporary design issues.
SLO 2: Formulate	Students will develop and refine a problem statement in which they specifically address their research questions. Students are expected to articulate the scope

Questions	of the problem to be able to address the research question with an engineering solution. When appropriate, students should be able to create additional (albeit related) questions for smaller subsections of the overall design project.
SLO 3: Plan of Action	Students will create a plan of action that will include the problem statement (or research question), scope of work, literature review and background context, methodology or approach to the solution, analysis plan, conclusion and design documents. Students will develop a hypothesis if needed, identify research methods and alternative designs, and select appropriate statistical techniques, if warranted.
SLO 4: Critical Thinking	Students will demonstrate critical thinking skills by taking into consideration multiple perspectives and examining implications and consequences of design decisions or engineering alternatives. Students will also demonstrate an ability to use evidence and reasoning to objectively justify decisions and an ability to apply codes and design standards to make reasonable engineering judgments. Students are asked to peer review student work and provide feedback during the juried presentations.
SLO 5: Ethical Conduct	Students will familiarize themselves with the Code of Ethics of their engineering discipline. All work is held to the standards established by the governing professional societies of computer and electrical engineering disciplines.
SLO 6: Communication	Students will present and defend their work in written and oral formats (interim and final). All deliverables are expected to be of professional quality. Students are expected to demonstrate knowledge of technical report writing, graphical visualization, and persuasive presentation skills.

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. Attendance policy statement

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

14. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

15. Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

16. Code of Academic Integrity policy statement

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 an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001. If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.

17. Required texts/reading

To reduce costs for our students, we strongly encourage you to explore the adoption of open educational resources (OER), textbooks and other materials that are freely accessible. We also encourage you to clearly state in the syllabus if course materials are available on reserve in the Library.

Instructor's notes

18. Supplementary/recommended readings

None.

Department of Computer and Electrical Engineering and Computer Science
Florida Atlantic University
Course Syllabus

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

Week Dates	Class Meeting Location and Time: EE106 Tuesday 5:00pm-7:00pm	Meeting Location/Groups	Submissions (dates subject to change)
1 1/14	Course Introduction	EE106/Everyone Attend	Revised proposal with detailed budget
2 1/21	Design Review	TBA	Individual status report 1 (due 1/19)
3 1/28	Design Review	TBA	Individual status report 2 (due 1/26)
4 2/4	Design Review	TBA	Individual status report 3 (due 2/2)
6 2/18	Progress Presentation I	EE106/Everyone Attend	Team status report 1 with video (due 2/17)
7 2/25	Design Review	TBA	Individual status report 4 (due 2/23)
8 3/3	Design Review	TBA	Individual status report 5 (due 3/1)
9 3/10	Spring Break		
10 3/17	Design Review	TBA	Individual status report 6 (due 3/15)
11 3/24	Design Review	TBA	Individual status report 7 (due 3/22)
13 3/31	Progress Presentation II	EE106/Everyone Attend	Team status report 2 with video (due 3/30)
12 4/7	Design Review	TBA	Project posters/summary (due 4/6)
14 4/15	Design review	TBA	Individual status report 8 (due 4/12)
15 4/22	Final Design Review	TBA	Project video (due 4/28)
16 4/29	Final Project Demonstration	EE106/Everyone Attend	Final project demo (TBA)
17	Final Project Report	Showcase/Selected Groups	Final project report (due 5/4)