E&U

FLORIDA ATLANTIC UNIVERSITY

NEW COURSE PROPOSAL Undergraduate Programs

Department Electrical Engineering and Computer Science

College Engineering and Computer Science (To obtain a course number, contact erudolph@fau.edu)

UUPC Approval <u> 0 - - 2 </u>
UFS Approval
SCNS Submittal
Confirmed
Banner Posted
Catalog

(1	o obtain a course number, c						
Prefix CEN	(L = Lab Course; C = Combined Lecture/Lab;	Type of Course	Course Title	:			
Number 4065	add if appropriate)	Lecture	3D Modeling	g and I	Design		
Number 4000	Lab						
Con dita co	Code						
Credits (Review <u>Provost</u> Memorandum)	Grading (Select One Option)	Course Description (Syllabus must be attached; Syllabus <u>Checklist</u> recommended; see <u>Guidelines</u>)					
3	Regular 💿	This course introduces students to the basic concepts of SOLIDWORKS and AutoCAD including 3D modeling with emphasis on electrical and electronic applications.					
Effective Date (TERM & YEAR)	Pass/Fail						
Spring 2022	Sat/UnSat						
Prerequisites, with minimum				Registration Controls (Major, College, Level)			
grade* CDA 3203 with "C" or better				College	, Level)		
OR senior standing							
*Default minimum passing grade is D Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course							
WAC/Gordon Rule Course		Intellectual Foundations Program (General Education) Requirement (Select One Option)					
Yes No		None					
WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See <u>WAC Guidelines</u> .		General Education criteria must be indicated in the syllabus and approval attached to the proposal. See <u>GE Guidelines</u> .					
Minimum qualifications to teach course							
PhD in CS, CE or EE							
Faculty Contact/Email/Phone		List/Attach comments from departments affected by new course					
Hanqi Zhuang, zhuan	g@fau.edu,5612973413						
Approved by		~			Date		
Department Chair	A V				9/23/2021		
College Curriculum Chair Dan Meer College Dean Fred Bloetscher		off			10-4-21		
College Dean Fred Bloetscher		ω			10-4-21		
UUPC Chair Dan	Meeroff				10-11-21		
	es Dean Edward	Pratt 10-11-21			10-11-21		
Provost							
I							

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

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

1. Course title/number, number of credit hours								
3D Modeling and Design – CEN 4065			3 credit hours					
2. Course prerequisites, corequisites, and where the course fits in the program of study								
CDA 3203 with "C" or better OR senior standing								
3. Course logistics								
Term: TBD Class location and time:								
4. Instructor contact information								
Instructor's name Office address Office Hours Contact telephone number Email address	TBD							
5. TA contact information								
TA's name Office address Office Hours Contact telephone number Email address	TBD							
6. Course description								
This course introduces students to the basic concepts of SOLIDWORKS and AutoCAD including 3D modeling with emphasis on electrical and electronic applications.								
7. Course objectives/student learning outcomes/program outcomes								
Course objectives	This course will provide students with knowledge of SOLIDWORKS and AutoCAD design software, to include basic commands and strategies with emphasis on electrical components, such as schematics, PCBs, and electrical packaging.							
Student learning outcomes & relationship to ABET 1-7 outcomes	2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. (Design)							
8. Course evaluation method								
Homework 40% Projects 60%								
9. Course grading scale								
A A- B+ [90-100] [87-90) [83-87) [8				D D- 0-63) [51-60)	F [0-51)			
10. Policy on makeup tests, late work, and incompletes								
Late Assignments Policy –								

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Make-up Policy for Tests: 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.

Incomplete Grade Policy Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation and the student is currently passing the class, incomplete grades will not be given.

11. Special course requirements

N/A

12. Classroom etiquette policy

To enhance and maintain a productive atmosphere for learning, personal communication devices such as cell phones are to be disabled during 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. After two full weeks of face-to-face instruction with consecutive 'no show' of any students in person in the classroom, the modality of this course section may be changed to remote instruction only at the discretion of the university.

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 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

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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.

17. Required texts/reading

Planchard, David: Engineering Design with SOLIDWORKS 2019 A Step-by-Step Project Based Approach Utilizing 3D Solid Modeling, SDC Publications, 2019, ISBN: 978-1-63057-223-5. Instructor's notes posted on Canvas.

18. Supplementary/recommended readings

Lockhart, Shawna: Tutorial Guide to AutoCAD 2018 2D Drawing, 3D Modeling, SDC Publications, 2017, ISBN: 978-1-63057-120-7.

Redwood, Schoffer, Garret: The 3D Printing Handbook Technologies, design and applications, 3D Hubs, 2017, ISBN: 978-90-827485-0-5.

19. Course topical outline (and associated readings)

- 1. The SOLIDWORKS Design Software
- 2. The AutoCAD Design Software
- 3. Electrical Applications
- 4. Electromechanical Packaging Applications
- 5. PCB Design
- 6. 3D Modeling