

 FLORIDA ATLANTIC UNIVERSITY	COURSE CHANGE REQUEST Undergraduate Programs		UUPC Approval <u>10-11-21</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Electrical Eng. and Comp Science College Engineering and Computer Science		
Current Course Prefix and Number EEL 3118L		Current Course Title Electronics Laboratory 1	
<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: <u>2</u> To: <u>3</u> 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"/>		Change description to: See attached syllabus for new course description. Change prerequisites/minimum grades to: EEE 3300 with C or better Change corequisites to: EEE 3300 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 2022		Terminate course? Effective Term/Year for Termination:	
Faculty Contact/Email/Phone Hanqi Zhuang, zhuang@fau.edu, 561-297-3413			
Approved by Department Chair _____ College Curriculum Chair <u>Dan Meeroff</u> College Dean <u>Fred Bloetscher</u> UUPC Chair <u>Dan Meeroff</u> Undergraduate Studies Dean <u>Edward Pratt</u> UFS President _____ Provost _____		Date 9/23/2021 <u>10-4-21</u> <u>10-4-21</u> <u>10-11-21</u> <u>10-11-21</u> _____ _____	

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

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 Course Syllabus

1. Course title/number, number of credit hours	
Electronics Laboratory I – EEL3118L	3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the Program of study	
Prerequisite: EEE 3300 Electronics I with C or better; Co-Requisite: EEE 3300 Electronics I	
3. Course logistics	
Term: TBD Class location and time:	
4. Instructor contact information	
Instructor's name Office address Online 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	
Introduction to basic electronic test equipment and measurement techniques; Analysis and design of passive electrical RC circuits; Analysis and design of op-amp, diode and BJT analog circuits, and Introduction to MOSFET circuits.	
7. Course objectives/student learning outcomes/Program outcomes	
Course objectives	The goal of the course is to give the student hands–on experience in performing electrical/electronic measurements and assessing the performance of Fundamental circuits and devices. A further goal of the course is for the student to learn the use of laboratory Equipment, devices, and components and their use in the design and evaluation of basic circuits.
Student learning outcomes & relationship to ABET 1-7 outcomes	Upon completion of the course, the student should be able to: <ol style="list-style-type: none"> 1) Handle basic electronic instruments/Equipment such as Power supplies, CRO's, Multi-meters, signal generators, etc. (5, 6) 2) Identify passive components (R, L, C) and active devices like transistors, diodes, and operational Amplifiers. (5, 6) 3) Perform measurements procedures to assess R, L, C values. (5, 6) 4) Perform tests to measure voltage and current using measuring instruments including CRO. (5, 6) 5) Use CRO (digital and analog) to study various electrical waveforms (5, 6)

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	<ul style="list-style-type: none"> 6) Understand characteristics such as Amplitude, phase, and frequency. (5, 6) 7) Wire-up relevant circuits within a Team To emulate differentiation/integration. (5, 6) 8) Determine the characteristics of diodes and transistors. (5, 6) 9) Analyze the transient and steady-state behavior of RLC circuits and understand resonant circuits. (5, 6) 10) Perform basic experiments within a Team to understand operational Amplifier applications. (5,6)
8. Course evaluation method	
6 Laboratory Reports - 33% 7 Pre-Lab Assignments - 14% Shipping Quiz - 3% Parts Received Quiz - 3% General Quiz - 3% Comprehensive Final Exam - 36% Attendance -8%	<i>Note:</i> The minimum grade required to pass the course is C.
9. Course grading scale	
Grading Scale: "A", 90-100: "A- ", 85-89: "B+", 80-84: "B", 75-79: "B- ", 70-74: "C+", 65-69: "C", 60-64: "C-", 55-59: "D+", 50-54: "D", 45-49: "D-", 40-44: 39 and below: "F."	
10. Policy on makeup tests, late work, and incompletes	
<p><i>Makeup tests</i> are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student from participating in the exam. Makeup exam should be administered and proctored by department personnel unless there are other pre-approved arrangements</p> <p><i>Late work</i> is not acceptable.</p> <p><i>Incomplete grades</i> are against the policy of the department. Unless there is solid evidence of a medical or otherwise serious emergency situation incomplete grades will not be given.</p>	
11. Special course requirements	
TBD	
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	

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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

No textbook

18. Supplementary/recommended readings

TBD

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

- Electronics Lab Instruments and Parts Kits: Analog Discovery 2 Oscilloscope and Function Generator, Digital Multimeter.
- DC Measurements

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- Transient and Frequency Response Measurements of RC circuits
- Op-Amp applications
- Diode circuits and applications
- BJT Current Drivers and Small-Signal Amplifiers (Single and Two Stage)
- BJT Power Amplifiers: Class A, Class B and Class AB
- MOSFET analog circuits
- Final Project