

EEL3112-8194(12424) - Circuits 2

EEL 3112 – Circuits II

Credits and Contact Hours: 3;

MWF Period 5 (11:45-12:35), NEB 202.

Course Instructor: Dr. Navid Asadi, MAE 221

Contact: nasadi@ufl.edu (mailto:nasadi@ufl.edu) (include EEL3112 in subject line)

Office hours: Wed. (4:00pm – 6:00pm) or by appointment

Teaching Assistant: Troy Tharpe ttharpe@ufl.edu (mailto:ttharpe@ufl.edu),

Class Web Site: lss.at.ufl.edu (e-Learning in Canvas); announcements, lectures, HW, discussion, etc.

Textbook: Nilsson and Riedle, Prentice Hall (Pearson)

Optional Supplemental Material:

Publisher website (www.pearsonhighered.com/nilsson [_\(http://www.pearsonhighered.com/nilsson\)_](http://www.pearsonhighered.com/nilsson))

Specific Course Information

- **Catalog Description:** Continuation of EEL 3111 with emphasis on circuit-enabled applications, convolution, Fourier and Laplace transforms
- **Prerequisites:** EEL 3111 - Circuits 1: EEL 3135-Introduction to Signals & Systems.

Specific Goals for the Course

Specific Instructional Outcomes: The topics covered are part of the underlying foundational theory of electrical/electronic systems along with developing design and implementation skills.

List of Topics

- Review of elementary circuit theory.
- Continuous-time linear systems including zero-state and zero-input responses, impulse response, and convolution.
- Lumped-parameter systems and circuits and their differential equation models. Obtaining solutions in the time domain, natural modes using impulse responses, and determining stability.
- Laplace transform and their application to circuits, system analysis, system functions, poles, zeros, natural mode of operation, and stability

- Spectra of periodic signals using a Fourier series. Response of linear time invariant (LTI) systems to periodic signals.

Assessment

Homework

Anticipate 2 in-class examinations.

All make-up exam requests will require evidence of a medical condition or official University of Florida travel or business.

Canvas resources:

Syllabus, lectures (.PPT), supplemental notes, announcements, grades, assigned problems, etc.

Grading

1. Homework: **20%**
2. Two in-class exams: **25% + 25%**
3. Final exam: **30%**

17. Grading Scale

| Numeric Cutoff | Letter Grade | Grade Points |
|-------------------|-----------------|--------------|
| 90 | A | 4.00 |
| 87 | A- | 3.67 |
| 83 | B+ | 3.33 |
| 80 | B | 3.00 |
| 77 | B- | 2.67 |
| 73 | C+ | 2.33 |

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|-----|----|------|
| 70 | C | 2.00 |
| 67 | C- | 1.67 |
| 63 | D+ | 1.33 |
| 60 | D | 1.00 |
| 57 | D- | 0.67 |
| <57 | E | 0.0 |

18. Make-up Exam Policy

Homeworks: **DUE AT BEGINNING OF CLASS PERIOD**

Exams: No make-up unless prior written documentation from Dean of Students, Physician, or Judge.

19. Honesty

UF students are bound by The Honor Pledge which states, "*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.*" On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/> (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-%20code/>)) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

*****CHEATING, COPYING, or PLAGERISM will result in a ZERO ON THE ASSIGNMENT, and DISCIPLINARY ACTION WILL BE PURSUED** (see <https://www.dso.ufl.edu/sccr> (<https://www.dso.ufl.edu/sccr>))

20. Course Evaluations

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/> (<https://evaluations.ufl.edu/results/>).

21. Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/ (<http://www.dso.ufl.edu/drc/>)) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

22. UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling and Wellness Center, 3190 Radio Road, 392-1575, Personal and Career Counseling.

<http://www.counseling.ufl.edu/cwc/Default.aspx> (<http://www.counseling.ufl.edu/cwc/Default.aspx>)

- Student Health Care Center, 392-1171, Personal and Counseling. <http://shcc.ufl.edu/> (<http://shcc.ufl.edu/>)

- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

23. Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Course Summary:

Date

Details
