ENGR 203  Spring 2017

Electrical Fundamentals III

Instructor: Karti Mayaram (email: karti@eecs.oregonstate.edu)
Office: KEC 4095 (phone: 737-2972)
Office Hours: W 5pm-6pm, Thu 5pm-6pm
Web page: http://www.eecs.oregonstate.edu/~karti/engr203.html
http://classes.engr.orst.edu/engr/
TA Office Hours: Ashwin Ramachandran (ramachaa@oregonstate.edu): Fri 2pm–4pm
Siladitya Dey/Hui Zhang (deys@eecs.oregonstate.edu): Mon 5pm-7pm
Subramanian TR (tirunels@oregonstate.edu): Tu 8am-10am

Course Objective: Laplace transform, Fourier series, Bode plots, and their application to circuit analysis.

Grading:
Quizzes (2) 10%
Midterm Exams (2) 40%
Comprehensive Final Exam 30%
Homework 20%

Your final grade will be based on the overall absolute score. The score ranges for the grades are: A: 90 and above; B: 80-89; C: 70-79; D: 60-69; F: below 60.

Homework: The homework will have three components: group homework (weekly assignments) 10%, recitation (lab) assignments 5%, and individual self reflection 5%. Solutions will be provided for most of the group homeworks. The grading will be either a 10 (mostly correct), 5 (partially correct), or 0 (little or no effort).

No late homeworks will be accepted.

Quizzes/Exams: The quizzes and exams will be closed book. I will provide a reference sheet that will be made available prior to the exam. Calculators may or may not be allowed.
Quiz dates: Tuesday: April 18 and Thursday: May 11, 11:10-11:40am.
Midterm exam dates: Thursday: April 27 and Tuesday: May 23, 10:00-11:00am.
Final exam date: Thursday June 15, 12:00-1:50pm.
There will be no makeup exam unless there is a medical emergency and a doctor’s note is provided to the instructor.

Cheating Policy: Cheating is unacceptable. Swift disciplinary action will be taken for cheating.


Course Outline

(2 weeks) Review, Laplace transform (Chap. 15).
(3 weeks) Circuit analysis with Laplace transform (Chap. 16).
(1.5 weeks) Bode plots (Section 14.4).
(2.5 weeks) Fourier series and applications (Chap. 17).
<table>
<thead>
<tr>
<th>Week</th>
<th>Assignments/Reading</th>
</tr>
</thead>
</table>
| #1: 4/03-4/07 | HW#0 Due 4/06  
HW#1 Assigned 4/06  
HW#2 Assigned 4/13  
HW#3 Assigned 4/20  
Quiz#1: 4/18 11:10-11:40am  
HW#2 Due 4/20 |
|            | Read Textbook: Sections 7.4, 15.1, 15.2  
HW#3 Due 4/25  
Test#1: 4/27 10-11:00am |
| #2: 4/10-4/14 | HW#1 Due 4/13  
HW#2 Due 4/20  
HW#3 Assigned 4/20  
Quiz#2: 5/11 11:10-11:40am |
| #3: 4/17-4/21 | Read Textbook: Sections 15.3, 15.4 |
|            | HW#4 Assigned 4/27  
HW#5 Due 5/18  
Test#2: 5/23 10-11:00am |
| #4: 4/24-4/28 | HW#5 Assigned 5/09  
HW#6 Assigned 5/23  
HW#7 Assigned 5/23  
Quiz#2: 5/11 11:10-11:40am |
| #5: 5/01-5/05 | Read Textbook: Sections 16.4, 16.6, 15.5  
HW#6 Due 6/01  
HW#7 Due 6/08  
Final Exam: 6/15 12-1:50pm |
| #6: 5/08-5/12 | HW#6 Due 6/01  
HW#7 Due 6/08  
HW#8 Due 6/29-6/02  
Test#2: 5/23 10-11:00am |
| #7: 5/15-5/19 | Read Textbook: Sections 17.1, 17.2  
HW#7 Due 6/08  
HW#8 Due 6/29-6/02  
Test#2: 5/23 10-11:00am |
| #8: 5/22-5/26 | HW#6 Assigned 5/23  
HW#7 Assigned 5/23  
HW#8 Due 6/29-6/02  
Test#2: 5/23 10-11:00am |
| #9: 5/29-6/02 | Read Textbook: Sections 17.3, 17.4, 17.5  
HW#6 Due 6/01  
HW#7 Due 6/08  
HW#9: 6/29-6/02  
Test#2: 5/23 10-11:00am |
| #10: 6/05-6/09 | Read Textbook: Sections 17.3, 17.4, 17.5  
HW#6 Due 6/01  
HW#7 Due 6/08  
HW#9: 6/29-6/02  
Test#2: 5/23 10-11:00am |
| #11: 6/12-6/16 | Read Textbook: Sections 17.3, 17.4, 17.5  
HW#6 Due 6/01  
HW#7 Due 6/08  
HW#9: 6/29-6/02  
Test#2: 5/23 10-11:00am |
**Statement Regarding Students with Disabilities:**

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at [http://ds.oregonstate.edu/](http://ds.oregonstate.edu/). DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

**Expectations for Student Conduct:**

Student conduct is governed by the university’s policies, as explained in the [Office of Student Conduct and Community Standards](http://studentlife.oregonstate.edu/studentconduct/offenses). In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity and respect. Disruption of teaching, administration, research, and other institutional activities is prohibited by [Oregon Administrative Rule 576-015-0015 (1) and (2)](http://engineering.oregonstate.edu/undergraduate-policy-manual#honesty) and is subject to sanctions under university policies, [Office of Student Conduct and Community Standards](http://studentlife.oregonstate.edu/studentconduct/offenses).

**Academic Integrity** - Students are expected to comply with all regulations pertaining to academic integrity. At OSU academic integrity is defined as the following: “(a) upholding the standards of the academic discipline of which you are a part, (b) honesty in all academic processes and accomplishments, (c) respect for and appropriate use of the work of others, (d) taking responsibility for your own work, and (e) accountability to protect personal academic work from misuse by others.”

**Academic Dishonesty** - is defined as an act of deception in which a Student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work or research, either through the Student's own efforts or the efforts of another.

The following policies apply:

- OSU policy: [http://studentlife.oregonstate.edu/studentconduct/offenses](http://studentlife.oregonstate.edu/studentconduct/offenses)
- College of Engineering policy: [http://engineering.oregonstate.edu/undergraduate-policy-manual#honesty](http://engineering.oregonstate.edu/undergraduate-policy-manual#honesty)