University of Portland
Donald P. Shiley School of Engineering

EE371
Electronic Circuits Laboratory
(1 credit hour)

Course Syllabus
Spring, 2018

Lab Hours: Monday 2:40-5:40pm, Shiley Hall 309

Course Description: Companion laboratory course to the EE352 Electronics Circuits II lecture course. Students analyze, assemble, and test various electronic circuits. Students perform rigorous AC and DC measurements using state-of-the-art instrumentation and correlate results to theoretical analysis. Rigorous written reporting of laboratory results is required. (Corequisite: EE352.) Fee: $40.

Student Outcomes:
1) Perform design, analysis and test of advanced analog BJT and opamp amplifier circuits in the lab.
2) Apply electronic feedback theory and techniques through lab experimentation.
3) Learn proper electronic laboratory build and measurement techniques through three required lab assignments in conjunction with the associated corequisite EE352 lecture course.
4) Perform the detailed design, analysis and experimental verification of a specific discrete Common Emitter Amplifier.

Instructor: Dr. Peter M. Osterberg, oster@up.edu, https://faculty.up.edu/oster, Shiley Hall 225, 503-943-7416, Office Hours posted on office door.

Text: None. However, you must purchase and use an approved Lab Notebook available at the UP Book Store.

Lab Teams: You will be working in teams of two in this course. Your lab partner will be assigned during the first lab class.

Lab Notebook: You are required to maintain your own personal Lab Notebook. The instructor will review it at each Lab Checkoff. Also, it is required to be turned in at the end of the semester. You must follow the Lab Notebook Format described in the class handout.

Lab Reports: Each of the three Lab Assignments requires a written Final Lab Report. You must follow the Lab Report Format described in each Lab Assignment handout.

Assessment Tools: 25% Lab #1
30% Lab #2 (Design Project)
25% Lab #3
10% Lab Notebook
10% Instructor overall assessment

Grading Scale:
90% - 100% = A^ – A
80% - 89% = B – B^* 
70% - 79% = C – C^*
60% - 69% = D – D^*
Below 60% = F

University of Portland’s Code of Academic Integrity:
Academic integrity is openness and honesty in all scholarly endeavors. The University of Portland is a scholarly community dedicated to the discovery, investigation, and dissemination of truth, and to the development of the whole person. Membership in this community is a privilege, requiring each person to practice academic integrity at its highest level, while expecting and promoting the same in others. Breaches of academic integrity will not be tolerated and will be addressed by the community with all due gravity. Please see the University Bulletin for policy: https://up.smartcatalogiq.com/en/2016-2017/bulletin/University-Academic-Regulations/I-Code-of-Academic-Integrity
**University of Portland’s Assessment Disclosure Statement:**
Student work products for this course may be used by the University for educational quality assurance purposes.

**University of Portland’s Accessible Education Services (AES):**
Students who experience a disability and require an accommodation to fully participate in this class, contact the Accessible Education Services office, located in Buckley Center, Rm. 163 or call 503-943-8985. If you have an AES Accommodation Plan that includes academic accommodations that apply to this course, make an appointment to meet with your professor to discuss how your accommodation will be implemented. You are responsible for giving sufficient notice to your professor for timely implantation of your accommodation; therefore, it is recommended you speak with your professor in the first week of the semester or as soon as your accommodation plan is activated. Also, meet with the professor if you have an AES Safety Plan and/or wish to discuss emergency medical information or special arrangements in case the building must be evacuated. Requests for alternate location for exams and/or extended exam time should, when possible, be made two weeks in advance of an exam, and must be made at least one week in advance of an exam.

**University of Portland’s Shepard Academic Resource Center (SARC):**
The Learning Resource Center, located on the first floor of Buckley Center within SARC (BC 163), provides peer assistance tutoring for writing, math, speech and presentations, languages, business and economics, sciences and nursing. The Learning Resource Center provides peer assistance tutoring for writing, math, speech and presentations, group project planning, international languages, etc. For complete information about the Learning Commons Center, please go to: [https://www1.up.edu/learningcommons/index.html](https://www1.up.edu/learningcommons/index.html)

**University of Portland’s Mental Health Statement:**
As a college student, you may sometimes experience problems with your mental health that interfere with academic experiences and negatively impact daily life. If you or someone you know experiences mental health challenges at UP, please contact the University of Portland Health and Counseling Center in Orrico Hall (down the hill from Franz Hall and Mehling Hall) at [https://www1.up.edu/healthcenter/](https://www1.up.edu/healthcenter/) or at 503-943-7134. Their services are free and confidential, and if necessary they can provide same day appointments. Also know that the University of Portland Public Safety Department (503-943-4444) has personnel trained to respond sensitively to mental health emergencies at all hours. Remember that getting help is a smart and courageous thing to do – for yourself, for those you care about, and for those who care about you.

**University of Portland’s Non-Violent Community Statement:**
University of Portland Faculty, Staff, and Students are committed to creating a community free of interpersonal violence, in which all members feel safe and respected. Each of us has a personal responsibility to reject violence or intimidation of any kind. Resources for those experiencing or wishing to report violence can be found on our community against violence website: [https://www1.up.edu/cav/](https://www1.up.edu/cav/)

**University of Portland’s Lab Access Statement:**
Shop access is only allowed with appropriate training from shop technicians and with instructor permission. If students require card access to a laboratory, they must receive training from a technician. No food or beverages (including water bottles) are allowed in the computer classrooms, shop, or labs.

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**Course Outline**

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<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1/15</td>
<td>No Lab</td>
</tr>
<tr>
<td>1/22</td>
<td>Lab teams assigned, Lab#1 (BJT Diff Amp) assigned</td>
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<tr>
<td>1/29</td>
<td>Lab#1 lab work</td>
</tr>
<tr>
<td>2/5</td>
<td>Lab#1 lab work</td>
</tr>
<tr>
<td>2/12</td>
<td>Lab#1 lab work (Lab #1 Checkoff’s due)</td>
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<tr>
<td>2/19</td>
<td>Lab#1 Lab Report due in EE352 class; Lab#2 (CE Amp Design Project) assigned</td>
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<tr>
<td>2/26</td>
<td>Lab#2 lab work</td>
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<tr>
<td>3/5</td>
<td>Lab#2 lab work</td>
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<tr>
<td>3/12</td>
<td><strong>Spring Break (no lab)</strong></td>
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<tr>
<td>3/19</td>
<td>Lab#2 lab work (Lab #2 Checkoff’s due)</td>
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<tr>
<td>3/26</td>
<td>Lab#2 Lab Report due in EE352 class; Lab#3 (BJT Opamp) assigned</td>
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<tr>
<td>4/2</td>
<td><strong>Holiday (no lab)</strong></td>
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<tr>
<td>4/9</td>
<td>Lab#3 lab work</td>
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<tr>
<td>4/16</td>
<td>Lab #3 lab work (Lab #3 Checkoff’s due)</td>
</tr>
<tr>
<td>4/23</td>
<td><strong>No Lab</strong>, Lab#3 Lab Report due in EE352 class, Turn in Lab Notebooks</td>
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