COURSE OUTLINE

ELEC 320 Electronic Devices: I
Spring 2015 (201501)

Instructor
Dr. Chris Papadopoulos
Phone: 721-8619
E-mail: papadop@ece.uvic.ca

Office Hours
Day: Tuesday Time: 2:30PM – 5:00PM
(or by appointment)
Location: EOW 429

Lectures
Sections: A01/CRN 21056, A02/CRN 21057
Days: TWF
Time: 8:30AM – 9:20AM
Location: DTB A110

Labs
B01 M 3:00PM – 5:50PM ELW A309
B02 M 3:00PM – 5:50PM ELW A309
B03 R 12:00PM – 2:50PM ELW A309
B04 R 12:00PM – 2:50PM ELW A309
B05 R 3:00PM – 5:50PM ELW A309
B06 R 3:00PM – 5:50PM ELW A309

Website
http://coursespaces.uvic.ca/ (NetLink ID required)

Required Text
Modular Series on Solid State Devices, I-IV
Author: Pierret, Neudeck
Publisher: Addison-Wesley
Edition: Second

Reference texts
Solid State Electronic Devices
Author: Streetman, Banerjee
An Introduction to Semiconductor Devices
Author: Neamen
Solid-State Electronic Devices: An Introduction
Author: Papadopoulos

Topics
I  Review of Electrical Properties of Materials
II  Junctions and Diodes
III  Bipolar Transistors
IV  Field Effect Transistors

Assessment
Assignments 10% (Due Jan. 27; Feb. 17; Mar. 10; Mar. 24)
Labs 10%
Test 25% (Feb. 27)
Final Exam 55%

Submit all assignments directly to instructor (in-class or office by 5PM). Late assignments will be accepted up to 3 days after the due date with a penalty of 10% per day.

Failure to complete all laboratory requirements will result in a grade of N being awarded for the course.
The final grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

<table>
<thead>
<tr>
<th>Passing Grades</th>
<th>Grade Point Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>9</td>
<td>90 – 100</td>
</tr>
<tr>
<td>A</td>
<td>8</td>
<td>85 – 89</td>
</tr>
<tr>
<td>A-</td>
<td>7</td>
<td>80 – 84</td>
</tr>
<tr>
<td>B+</td>
<td>6</td>
<td>77 – 79</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>73 – 76</td>
</tr>
<tr>
<td>B-</td>
<td>4</td>
<td>70 – 72</td>
</tr>
<tr>
<td>C+</td>
<td>3</td>
<td>65 – 69</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>60 – 64</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>50 – 59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Failing Grades</th>
<th>Grade Point Value</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>0</td>
<td>0 – 49</td>
<td>Fail, conditional supplemental exam. (For undergraduate courses only)*</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0 – 49</td>
<td>Fail, no supplemental.</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0 – 49</td>
<td>Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam.</td>
</tr>
</tbody>
</table>

*Assignment of E grade will be at the discretion of the Course Instructor.

The rules for supplemental examinations are found on page 82 of the current 2014/15 Undergraduate Calendar.

<table>
<thead>
<tr>
<th>Term in which E Grade was obtained:</th>
<th>Application Deadline for Supplemental Exam</th>
<th>Supplemental Exam Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First term of Winter Session</td>
<td>February 28 in the following term</td>
<td>First week of following May</td>
</tr>
<tr>
<td>Second term of Winter Session</td>
<td>June 30 in the following term</td>
<td>First week of following September</td>
</tr>
<tr>
<td>Summer Session (May – Aug)</td>
<td>October 31 in the following term</td>
<td>First week of following January</td>
</tr>
</tbody>
</table>

Deferred exams will normally be written at the start of the student’s next academic term; i.e., approximately 4 months following the deferral of the exam.

**Course Objectives and Learning Outcomes**

Understand and apply principles of operation and design of modern electronic devices: (i) Equations describing device operation; (ii) Appropriate device models; (iii) Factors that determine device performance.

**Syllabus**


**Accommodation of Religious Observance**

See http://web.uvic.ca/calendar2014/GI/GUPo.html

**Policy on Inclusivity and Diversity**

See http://web.uvic.ca/calendar2014/GI/GUPo.html

**Standards of Professional Behaviour**

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at http://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf which contains important information regarding conduct in courses, labs, and in the general use of facilities.

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the ECE Chair by email or the ECE Chair’s secretary eceasst@uvic.ca to set up an appointment.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult http://web.uvic.ca/calendar2014/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity.