# COURSE OUTLINE

## ELEC 320 Electronic Devices: I

### Spring 2018 (201801)

**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 21082  
Days: TWF  
Time: 8:30AM – 9:20AM  
Location: ELL 168

### Labs
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<th>Section</th>
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<tr>
<td>B01</td>
<td>M</td>
<td>1:30PM – 4:20PM</td>
<td>ELW A309</td>
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<tr>
<td>B02</td>
<td>M</td>
<td>1:30PM – 4:20PM</td>
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<td>B03</td>
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<td>B04</td>
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<td>B05</td>
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<td>12:30PM – 3:20PM</td>
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<td>B06</td>
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<td>12:30PM – 3:20PM</td>
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<tr>
<td>B07</td>
<td>T</td>
<td>5:00PM – 7:50PM</td>
<td>ELW A309</td>
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### Website
http://coursespaces.uvic.ca/ (NetLink ID required)

### Required Texts
- Modular Series on Solid State Devices, Vols. I-IV  
  Authors: Pierret, Neudeck  
  Publisher: Addison-Wesley  
  Edition: Second

### Reference Texts
- Solid State Electronic Devices  
  Authors: 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. 23; Feb. 20; Mar. 13; Mar. 27)  
- Labs 10%  
- Test 25% (Mar. 2)  
- Final Exam 55%

Submit all assignments directly to instructor (in-class or office by 5 PM). 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 for the purpose of GPA calculation will be based on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar: http://web.uvic.ca/calendar2018-01/undergrad/info/regulations/grading.html

Assignment of E grade and supplemental examination for this course will be at the discretion of the Course Instructor. The rules for supplemental examinations can be found in the current Undergraduate Calendar: http://web.uvic.ca/calendar2018-01/undergrad/info/regulations/exams.html

**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**

http://web.uvic.ca/calendar2018-01/undergrad/info/regulations/religious-observanc.html

**Policy on Inclusivity and Diversity**

http://web.uvic.ca/calendar2018-01/general/policies.html

**Standards of Professional Behaviour**

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

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, students should feel free to contact the Chair of the Department by email or the Chair's Secretary 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 the entry in the current Undergraduate Calendar for the UVic policy on academic integrity:

http://web.uvic.ca/calendar2018-01/undergrad/info/regulations/academic-integrity.html

**Equality**

This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging for appropriate accommodation. Alternatively, you may want to contact the Resource Centre for Students with a Disability located in the Campus Services Building. The University of Victoria is committed to promoting, providing, and protecting a positive, and supportive and safe learning and working environment for all its members.

**Course Lecture Notes**

Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, which could in some cases constitute a breach of academic integrity as defined in the UVic Calendar.