

## ELEX 2117 Course Information

**Note: The course format and evaluation methods are subject to change due to the evolving public health situation.**

### Instructor

Ed Casas. You can reach me by e-mail at [ecasas@bcit.ca](mailto:ecasas@bcit.ca)<sup>1</sup>, by phone at +1 604 432 8936 or by posting a question on the course website.

### Getting Help

Most questions can be answered on the course discussion forum or by e-mail. Forming the question will often get you closer to an answer.

Post questions about the course, lecture, or lab material on the course website under Activities → Discussions. You may post anonymously.

Send an e-mail for questions on personal matters, such as your marks or absences.

In some cases you may need to show an instructor what happens on your computer. You can do this by sharing your desktop in a Learning Hub Virtual Classroom or Zoom session. Contact the instructor to arrange a mutually convenient time. If you're on campus you may be able to use a PC in the lab.

### Course Website

Lecture notes, lab instructions, quizzes, exams, and solutions will be available on the course website: <https://learn.bcit.ca/d21/home/814814>.

The website also contains an updated schedule of lectures, labs, quizzes, exams, and the course withdrawal deadline.

You can arrange to have text or email notifications of updates to Learning Hub courses sent to you. Select Notifications from the drop-down menu next to your name at the top right of any Learning Hub page. I recommend subscribing to News - new item available and optionally to Discussions - new post ....

<sup>1</sup>Do not include links to websites in your e-mail.

### Evaluation

| Component          | Weight |
|--------------------|--------|
| Labs (8 or 9)      | 30%    |
| Quizzes (3)        | 20%    |
| Mid-Term Exams (2) | 25%    |
| Final Exam (1)     | 25%    |

ELEX 2117 is a two-component course as defined in section 3.4 of [BCIT Policy 5103-PR1](#). This means you must pass both the practical (lab) and theory (quizzes and exams) components of the course to pass the course. If your overall mark is over 50% but you do not pass both components you will receive a mark of U; this counts as a failure.

### Labs

Lab instructions will be posted on the course website beginning the second week of the course.

Your mark for each lab will be based on a lab report and a demonstration. You may be able to demonstrate some labs by submitting a video.

The submission deadline for the lab report and video will be shown in each Assignment folder on the course website. All lab sets will have the same deadline.

### Quizzes

Three quizzes will be held during the scheduled lecture times on the dates shown in the course schedule.

### Exams

Two midterm exams will be held on the dates shown on the course schedule. These may be two hours long and may be scheduled outside of the normal lecture time slots, tentatively on Friday at 3:30 PM.

A three-hour final exam will be scheduled during the final exam week.

## Marking

The marking scheme for each lab will be published on the course website under “Course Information” after the submission deadline for each lab.

A coded description of which items were marked incorrect will be shown in the Grades page on the course website. Not all items in each report will be marked.

The final lab and quiz marks will be computed as the **truncated mean** – the average after omitting the best and worst marks.

Students can retrieve details of their marks from the **marks** document found under Content → Course Information. The password required is available in the Password row in the Grades page of the course website.

## Attendance and Absences

Do not come to campus if you feel unwell. You do not need to attend lectures or labs. A Learning Hub Virtual Classroom will run simultaneously with in-person lectures and recordings of the lectures will be available. Students will be able to complete all labs using only the lab parts kit and the Analog Discovery 2.

You do not have to attend your lab session but you must submit the required documentation for a lab to get credit for completing it.

If you were unable to complete a quiz, lab or exam because of illness please notify the program administrator, **Gundi Minato**, who will notify all affected instructors. Absences due to a documented illness will not be counted in the calculation of your marks.

Poor weather, transportation failures, communication and power network outages, family crises, forgetfulness, etc. may cause you to miss a lab or quiz for reasons beyond your control. It’s impractical to make up another quiz or exam or allow students to write the same one later. However, missing one quiz or one lab, by itself, will not affect your final mark. By omitting the highest and lowest marks your final grade should more accurately reflect your abilities.

## Lecture Notes and Other Resources

There is no textbook for this course. Instead, lecture notes will be provided for each topic.

These notes may include exercises that will be completed during the lecture. The answers will be made available on the course website, but you should try to work out the exercises on your own.



The course website contains other resources including two textbook chapters, datasheets, software and links to online materials.

Previous versions of this course are archived at <http://people.ece.ubc.ca/edc>.

## Lab Reports and Videos

Follow the instructions in the document on the course website under Content → Course Information that details the requirements for lab reports and video submissions.

Files must be submitted to the correct folder in the Activities → Assignments section on the course website.

You may use any file name for your document. Don’t add comments when submitting your documents – we won’t see them. Note that submitting file(s) requires two steps:  and then . You should receive an e-mail confirmation; save it.

After uploading your submission, double-check that you’ve used the correct submission folder and then view your file(s) in a browser to make sure you’ve submitted the correct file and that it can be viewed *in a web browser*. For example, embedded files such as source code or spreadsheets are often invisible. Many videos created by mobile phones will not be viewable in a browser but will launch a media player application instead.

Submissions may be collected any time after the submission deadline.

You’ll be able to update your submissions until they’re collected. If you’re not finished by the deadline you should submit the incomplete version and update it later if you get a chance.

The website will not warn you if you submit the wrong file, submit it to the wrong folder, if the file is in the wrong format or if it’s unreadable or unviewable. These happen every year. However, no allowances will be made for these types of mistakes.

This policy will seem harsh when you get no credit for something on which you’ve spent much effort. Unfortunately, it’s necessary to run the course efficiently and equitably.



### Important Notes

- 1. If you submit a file in the wrong format or to the wrong folder it will not be read and you will receive a mark of zero for that submission.**
- 2. You must submit the document *in PDF format* unless another file format is specified.**
- 3. Videos that cannot be viewed *in a web browser* will receive a mark of zero.**

### Lab Hardware

Parts kits are available from the BCIT bookstore to students registered in the course. You will also need some components from your Level 1 parts kit (the CPLD board and USB-Blaster, some space on your breadboard, and Dupont/Berg jumper wires). Some labs may also require an Analog Discovery 2.

### Software

We will use [Quartus Prime](#) Lite Edition for logic synthesis and the associated version of ModelSim (or Questa) Intel FPGA Edition for simulation. The course website has links to, and information about, this software. You can install the software locally<sup>2</sup> or use it via [AppsAnywhere](#). You may use version 20.1 or 21.1.

### Academic Integrity

This course has a zero-tolerance policy on Academic Misconduct. Verifiable offences will result in the final mark being capped at 50% (the maximum penalty the course instructor can impose). A report will also be filed with the Student Life Office. The penalty for

<sup>2</sup>The installer files are available in the ELEX 2117 ShareOut folder.

a second instance of Academic Misconduct is determined by the Associate Dean but is typically a failure in the course where the second offence occurred.

This policy applies to all graded activities (labs, quizzes, and exams). There are no exceptions.

Labs and exams in this course must be done *individually*. Students are encouraged to seek help from classmates but copying is not allowed. Instances of plagiarism will be dealt with according to BCIT policy [5104](#).

Here are some guidelines for this course:

#### Don't:

- divide up the work or work together on solutions
- submit a modified copy of someone else's solution
- ask to look at someone else's solution or show someone else your solution, not even in rough form
- write out a solution for someone else, not even on a white board

#### Do:

- help someone else arrive at their own solution by asking them leading questions
- explain your interpretation of the question (but not the solution)
- explain material found in the lecture notes or other references
- share books, papers or links to useful reference material – unless finding this material is part of the assignment

Briefly, if a classmate asks for help, help them to find their own solution, do not show them yours. Instead, explain where to find the information they're lacking so they can find the answer themselves.

The reason for this distinction is that you want to help your fellow students learn and to do this they need to go through the learning process themselves.

When copying is detected I can't tell who copied from whom and all students involved will be penalized.

Labs, quizzes and exams may be set up in a way that allows plagiarism to be detected. This may not be obvious to you.

Please ask if any of this is not clear. The penalties for Academic Misconduct are severe, and misunderstanding the course policies will not be accepted as an excuse.

Aside from the risk of penalties, academic misconduct is unfair to your peers and to yourself. Don't try to justify it by arguing that "everyone does it" (they don't).

## Distributing Course Materials

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Lecture recordings are for students in the course and may not be redistributed.

Please ask before distributing other materials I've posted. I typically give permission under a CC BY-NC-ND [Creative Commons](#) license for my own work but this is not possible when the materials are owned by others, such as BCIT.

## Quiz

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Are the following true or false?

- I can submit documents prepared using Microsoft Word.
- I can submit **.docx** files.
- I must pass the lab portion of the course to pass the course.
- If I missed a midterm exam because I was sick I should e-mail the instructor a medical certificate.
- The instructor prefers that I ask questions by e-mail.
- Missing a quiz will affect my final mark.