

ELEX 2117 Course Information

Instructor

Ed Casas. You can reach me by email at ecasas@bcit.ca¹, by phone at +1 604 432 8936 or by posting a question on the course website.

Office hours are during your lunch hour on Tuesdays and Fridays from 12:30 to 1:20. Office hours are also available by appointment on Tuesdays between 1:30 and 3:20 and on Fridays between 2:30 and 3:20.

Course Website

Lecture notes, lab instructions, quizzes, exams, and solutions will be available on the course website: <https://learn.bcit.ca/d21/home/907290>.

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

You can set up text or email notifications of updates by clicking on your name at the top right of any Learning Hub page and selecting Notifications. I recommend subscribing to News - new item available and optionally to Discussions - new post...²

Getting Help

Please don't ask questions before or after a lecture. The break between lectures allows one instructor to pack up and leave and the next one to come in and set up. If you want to ask a question, your choices, in decreasing order of preference, are to ask:

- During a lecture. Lectures may be recorded; use chat if you do not wish your voice recorded; you may use a pseudonym.
- On the website under Activities / Discussions³. This allows everyone to benefit from the answer.
- By email if it's a personal matter such as marks or absences.

¹Don't include links in your email.

²You'll also need to select Subscribe from the drop-down box next to the individual forum or topic discussion name.

³Anonymously, if you wish.

- During office hours.

Evaluation

Component	Weight
Labs (10)	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 (quiz and exam) 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 (unsatisfactory); this counts as a failure.

Labs

Lab instructions will be posted on the website before each lab.

The mark for each lab is based on a demonstration of successful completion (approximately 60%) and a brief lab report (approximately 40%). You may be able to demonstrate some labs by submitting a video.

Submission deadlines will be shown on each Assignment folder on the website. All sets will have the same assignment folders and deadlines.

Quizzes

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 are tentatively scheduled for Friday, February 3 and Friday, March 3 from 3:30 to 5:20 PM in SW1-1250.

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

Quizzes and exams will be “open book” – you may use any books or notes you wish. However, you may not use electronic devices (computer, cell phone, etc.) other than a calculator.

Use of a 0.5 mm mechanical pencil and plastic eraser is recommended when writing exams. Erasing errors is faster, takes less space, and is easier to read than striking out.

Marking

The marking scheme for each lab, quiz, and exam will be published on the website under Content / Course Information after the submission deadline.

Not all items in each submission may be marked. Typically, each comment indicates an error for which a mark was deducted. Not all items in each report will be marked.

Marked labs will be returned, with comments and a mark, to the feedback section in the corresponding assignment folder. Marked quizzes and exams will be returned by email.

Poor weather, transportation failures, power or network outages, family crises, job interviews, citizenship ceremonies, forgetfulness, etc. may cause you to miss an evaluation for reasons beyond your control.

To accommodate this, your final lab and quiz marks will be computed as the **truncated mean** – the average after omitting the best and worst marks. This means that 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.

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 website.

Absences and Attendance

Do not come to campus if you feel unwell. 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 final mark. However, you must complete at least five labs and two exams to pass the course.

While recommended, you do not have to attend lectures. The instructor will try to run a Learning Hub Virtual Classroom simultaneously with each lecture and make recordings available. Students will be able to complete most labs at home and submit videos demonstrating successful completion.

Lecture Notes and Other Resources

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

These will include exercises to be completed during the lecture. The answers will then be posted.

The 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>.

Equipment

Parts kits are available from the BCIT bookstore for \$6.95. You’ll need to ask for the kit at the front counter and show ID because the kits are only sold 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. Students in ELEX 2117 can buy the ELEX 1117 CPLD kit from the Bookstore if necessary (\$19.90).

A calculator that can convert between decimal, binary and hexadecimal number bases will be useful.

Software

We will use **Quartus Prime** Lite Edition for logic synthesis and **ModelSim-Intel® FPGA Edition (includes Starter Edition)** for simulation. The course website has links to, and information about, this software. Earlier versions will also work⁴. You can: (1) install the software locally or use it via **AppsAnywhere**, but not both⁵.

⁴With some changes to the instructions.

⁵There may be conflicts between the two versions.

Lab Reports and Videos

A document on the website under Content / Course Information explains how to prepare lab reports and video submissions.

Submit files to the correct folder under Activities / Assignments on the course website. You may use any file name. Don't add comments – we won't see them. You should receive an email confirmation; save it.

Double-check that you've used the correct folder and make sure your submissions can be viewed *in a web browser*. Files embedded in a PDF file will typically not be visible. Videos created by mobile phones are often *not* viewable in a browser and will launch a media player application instead.

Submissions may be collected at some point after the submission deadline. You can update your submissions until they're collected. At that point the submission folder will be hidden. So if you're not finished by the deadline you should submit an incomplete version and update it later if it's still possible.

The website will not warn you if you submit the wrong file, submit it to the wrong folder, or if it's unreadable or unviewable. This happens every year. 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!

- 1. If you submit the wrong file or to the wrong folder you will receive a mark of zero for that submission.**
- 2. You must submit your reports *in PDF format*.**
- 3. Videos that cannot be viewed *in a web browser* will receive a mark of zero.**

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 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 come up with their own solution by asking them questions
- explain 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 learning requires each student to solve problems on their own.

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

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

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 email the instructor a medical certificate.
- The instructor prefers that I ask questions by email.
- Missing a quiz or lab will affect my final mark.
- My marks will be available under Grades on the course website.
- It's OK to work together on labs.