

ELEX 4653 Course Information

Instructor

Ed Casas. You can reach me by e-mail at ecasas@bcit.ca, by phone at +1 604 432 8936 or by posting a question to the course web site (see below).

Office Hours

My office is in SW1-3061, accessed through SW1-3059. Office hours are:

Day	Time
Mondays	12:30 PM – 1:20 PM
Wednesdays	11:30 AM – 12:20 PM
Fridays	11:30 AM – 2:20 PM

It's a good idea to let me know if you intend to come by as I may be away from my office.

Course Web Site

Lecture notes, labs and solutions will be made available on the course web site (<https://learn.bcit.ca/d21/home/372559>).

Students can also ask and answer questions using the web site's "Discussions" feature.

Please *do not* send e-mail from the course web site, these e-mails have invalid return e-mail addresses and I cannot reply to them. Instead, use the e-mail address above.

Lecture, Lab and Exam Schedule

Lectures are 50 minutes in SW03-1710 on Mondays at 11:00 and Wednesdays at 10:30. Labs are 110 minutes in SW1-2560.

Any changes to the course schedule will be posted on the course web site.

Evaluation

Component	Weight
Labs	40%
Presentation	20%
Final Exam	40%

Labs

Most labs will require that you complete and submit a "notebook" file containing the solutions to a set of problems described in the notebook. The notebook may contain code to check your work.

The incomplete lab notebooks will be posted on the course web site. The completed notebooks will be submitted using the dropbox on the course web site.

The instructors will check the output of your code to verify that it meets the requirements. Parts of your solution may be checked by code included in the notebook.

Copying others' solutions is not allowed. The first instance of plagiarism will result in a mark of zero for that lab. The second instance will result in a mark of zero for all labs.

Submitting a notebook that has been modified to indicate successful completion of the lab will result in a mark of zero for all labs.

You may hand in your lab up to one week after the end of your lab. Notebooks not submitted when the reports are collected will receive a mark of zero.

Presentation

During the last week of the course you will be given about 10 minutes to teach your lab section about a Python package of your choice. If the package is very large (e.g. SciPy) you may present on a submodule (e.g. signal processing). The presentation should describe the package and give examples of how it's used. The purpose of this exercise is to give you practice learning and using packages on your own.

You will need to work in pairs with someone in your lab set and sign up for specific package beforehand (first come first served).

Exam

There will be a 2-hour open-book final exam during the last week of the course. The format will be similar to the labs except that: (1) you will need to complete the notebook during the lab session, (2) you will not be able to get help and (3) you will not have internet access. Because of this, it is strongly recommended you do the labs yourself and learn to use help files installed on the lab PCs.

Attendance and Absences

If you were unable to complete a lab or exam due to illness, please submit a [Student Medical Certificate](#) to [Kelly Voros](#) who will then notify the instructors of the courses affected.

Resources

There is no set textbook for this course. However, there is no shortage of documentation on Python.

You should learn to look up answers in the official Python documentation (typically installed along with Python). The course web site has links to some useful tutorials and e-books if you'd like more information on specific topics.

The lectures will include examples of using Python. You are welcome to bring a laptop or tablet to the lectures if you want to try out examples on your own during the class.

However, you must use the lab PCs for the labs and exams.

Submission

All lab and exams are to be submitted to the "Drop-box" section on the course web site.

You may use any file name but the notebook file must use the correct file name suffix (.ipynb).

The web site will not warn you if you submit a file in the wrong format.

Don't add comments when submitting your documents – I won't see them. You must click "Submit" after uploading your file. Check that your document can be downloaded and is readable. You should receive an e-mail confirmation; save it.

For practical reasons, no marks can be given for reports or assignments submitted to the wrong drop-box.

Note: If you do not submit a lab to the right drop-box, in the required format and with the correct file name extension (typically .ipynb) you will receive a mark of zero for that submission.

Unfortunately this policy is necessary in order to run the course efficiently and fairly.

Marking

The marking scheme will be published on the course web site under "Course Information" along with your encrypted marks. Not all items may be marked. Each student will be supplied with a password they can use to view their own marks.

Equipment

If you do not have a ShareFile account you will need a USB flash ("pen/stick/thumb/key") drive to transfer files to and from lab PCs.

Software

The course web site has links to the Anaconda software that you can use to install Python, Jupyter notebook and many other packages on your own computer. This will make it easier to finish labs and work out exercises and examples on your own.

Academic Integrity

In this course labs and exams are to be done individually. Students are encouraged to seek help from classmates but copying is not allowed. Instances of plagiarism will be reported to the Associate Dean and dealt with according to BCIT policy [5104](#) ("Sanctions range up to and including suspension from the institute").

Here are some guidelines for this course:

Don't:

- work together on labs
- 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

A Final Note



This is the first time this course is taught at BCIT. Expect changes as we try to figure out what works.

Do:

- help interpret error messages
- 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
- help someone else arrive at their own solution by asking them leading questions

Briefly, if a classmate asks for help, help them find their own solution, do not show them yours. When copying is detected we can't tell who copied from whom and all students involved will be penalized.

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

Python and ELEX 4699

You may be able to use Python for your ELEX 4699 (Electronics System Design Project) project (double-check with the instructor). The OpenCV libraries have been installed on the lab PCs and can be installed on the Raspberry Pi (although I have not done this).

How to Do Well

You can't learn programming by reading about it. You have to practice. Spend as much time as possible working on exercises and challenging yourself to improve your solutions.