ELEX 3525 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's Discussions section (see below).

Office Hours

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

Day	Time
Tuesday	11:30 AM– 2:30 PM
Wednesday	10:30–11:30 AM
Wednesday	12:30– 1:30 PM

Other times are also possible by appointment. I may be in a lab or another office so it's a good idea to let me know if you intend to come by.

Lab and Lecture Schedule

Lectures are 50 minutes long starting at:

Day	Time
Tuesday	10:30 AM
Wednesday	9:30 AM
Friday	10:30 AM

Labs are 110 minutes long starting on Thursday at 3:30 PM.

Check the course web site for room numbers, lab schedule and changes to the lecture schedule.

Evaluation

Component	Weight
Assignments	20%
Labs	20%
Mid-Term Exam	20%
Final Exam	40%

Several assignment will be given out during the term and will be due one week later. Solutions will be given out for all questions but not all questions will be marked. Late assignments will receive a mark of zero.

The mark for each lab will be calculated as follows:

Component	Weight
pre-lab assignment	20%
completion of lab objectives	60%
accurate, complete and well-written lab report	20%

The purpose of the pre-lab assignments is to prepare for the lab, so it must be submitted before the start of the lab or you will receive a mark of zero for the pre-lab. Labs must be completed and reports submitted within one week of the end of the lab.

All assignments, pre-labs and lab reports are to be submittted on the course web site (see below).

There will be one two– or three–hour final exam and one 50–minute mid-term exam. Exams will allow any books or notes but no electronic devices other than a calculator.

You will also be marked on your ability to follow instructions and pay attention to details. Students often lose marks for things such as writing a very complete and detailed answer to a different question, submitting in a widely-used file format (.doc, .zip) that is not the format requested, or doing the work and then forgetting to hand it in or handing it in late.

If you have an excusable absence due to illness, please submit a Student Medical Certificate to Kelly Voros who will then notify the instructors of the courses affected.

Lecture Notes

There is no textbook for this course. Instead, lecture notes will be handed out before each lecture. Most lectures will include exercises that you will complete during the lecture. You should bring a notebook to class where you can write your own notes and the answers to the exercises.

The text by Beasely, Electronic communications: a systems approach is used by other courses in the Telecom program and covers some of the material in this course. Andrew Tanenbaum's *Computer Networks*, 5th Edition and William Stallings' *Data and Computer Communications*, 9th edition, both published by Prentice-Hall are readable introductions to many aspects of computer networking. Both are available from the BCIT Library.

Course Web Site

Lecture notes, assignments, lab instructions and solutions will be be handed out during lectures and will also made available on the course web site (`https://learn.bcit.ca/d2l/home/199271`).

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 e-mail addresses and I cannot reply to them.

Previous versions of this course and ELEX 4340 (similar content), including lectures, notes, assignments, exams and solutions, are available at `http://www.ece.ubc.ca/~edc`. This is a good source of practice questions for exams.

Assignments and Labs

Document Formats

Much of your professional work will involve working with electronic documents. There are many different document file formats and the consequences of preparing a document in the wrong format can be serious.

In this course you will be asked to submit assignments and lab reports to the course web site in specific file formats. *If you do not submit an assignment or lab report in the required file format I will not read it and you will receive a mark of zero for that submission.*

For this course, when the file format is not specified, submit the document *in PDF format*.

Creating PDF Files

Many word processors (including the free LibreOffice) will export to PDF files. There are free utilities such as CutePDF that allow you to "print" any document to a PDF file.

If you prefer to hand-write your labs and assignments you can scan them and convert them to PDF using the scanners in the BCIT library or in SW1-3555. If you have a smart phone with a camera you can use an application (e.g. CamScanner, available for free for Android and iOS) to photograph and convert handwritten assignments to PDF.

Make sure the documents you submit are readable. Grayscale scans are usually easier to read.

Significant Figures

Read the Wikipedia article on Significant Figures. Marks will be deducted for using an unwarranted number of significant figures in your assignments and lab reports.

Proctored Lab Hours

The telecom labs (SW1-3555, -3575, -3585) will be open and supervised for a few hours on most evenings. Drop by SW1-3555 and ask the proctor for access to 3575 if you need to finish off a lab. You can also drop in if you want to work with your colleagues in a quiet environment.

Equipment

In addition to your solderless prototyping board and 3rd-term parts kit you will need an 8GB or smaller USB Flash Drive to save oscilloscope display captures and waveforms. It should be formatted with the usual MS-DOS FAT-32 file system (rather than NTFS, for example).

A calculator such as the Sharp EL-W516XBSL or Casio FX-115ES/991ES, that can convert between number bases and compute cumulative Gaussian probabilities will be useful. In exams you may use any calculator without a wireless interface (i.e. without WiFi, BT or IR capabilities).

Software

There is a range of free and useful PC software that we will use in the course that you can optionally install on your own computer. This includes: the Notepad++ text editor, the tcc Tiny C Compiler, the FreeMat Matlab-compatible numerical analysis software, the Audacity waveform editor and the LibreOffice and CutePDF programs mentioned above. Most of these are also available, or have equivalents, for Mac and Linux systems.

Plagiarism

Plagiarism means taking credit for the work of another. Read the BCIT Student Guide to Plagiarism if you are not clear on the topic.

Exams, labs and assignments are to be done individually unless otherwise indicated. 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.").

Assignments, labs and exams may be set up in a way that allows plagiarism to be detected. This may not be obvious to you. If asked, help your classmates find their own solutions, do not share your solution with them.