ECE265 Course Outline (Fall 2026)

IMPORTANT NOTE: This course outline is **incomplete**, as it only includes the content that is directly provided by the instructor. The content provided by the university/faculty/department is not included. **Please refer to the UVic course outline website for the complete course outline.**

Specification of Dates/Times

Unless explicitly indicated otherwise, all dates and times are specified using local time in Victoria, BC, Canada (i.e., Pacific Time), and times are expressed using 24-hour format (e.g., 09:00 is 9 o'clock in the morning and 21:00 is 9 o'clock at night). This statement applies in totality to all written and verbal communication for the course, including but not limited to: assignment submission deadlines, the dates/times for exams, lecture and tutorial times, office hours, and any dates/times specified on handouts, the course website, and the Brightspace site.

Instructor

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Course Website

Home Page: https://www.ece.uvic.ca/~mdadams/courses/ece265
Username: ece265-202609
Password: as announced on the Brightspace site at https://bright.uvic.ca/d2l/le/news/XXXXXX/XXXXXX/view

The course website is the **primary online source of information** for the course.

Brightspace Site

Home Page: https://bright.uvic.ca/d2l/home/XXXXXX

Although the course has a Brightspace site, the primary online source of information for the course is the course website (introduced above), **not the Brightspace site**. The Brightspace site is mainly intended to be used for:

1. posting important course announcements and other information, such as the username and password to be used for accessing password-protected areas of the course website;
2. submitting (and grading) assignments; and
3. providing students with a means to review their grades in the course.

Students are responsible for reading all announcements posted on the Brightspace site in a timely fashion. **Students should enable notifications (via email) for new announcements and other events on the Brightspace site** in order to stay abreast with what is happening in the course.

Teaching Assistants (TAs)

The tutorial and marker teaching assistants (TAs) are listed on the course website along with their contact information. In particular, this information can be found in the section of the course website titled "Teaching Assistants".

Online Meetings

Some meetings in the course may be held online. For details on how to attend online meetings, see the section of the course website titled "Online Meetings".

Lecture Sessions

Time/Location: The time/location of the lecture sessions is given in the information provided at the beginning of this document.

The lecture sessions are **required attendance**. **Students are responsible for all material covered in the lecture sessions.**

Normally, **the lecture sessions will not be recorded**. There are several important reasons for this:

- the main objective of the lecture sessions is to provide an opportunity for the instructor and students to engage with one another interactively in real time, and recording the lecture sessions would run completely contrary to this objective;
- recording any interactions with students raises many privacy concerns which are best avoided whenever possible;
- some students are much less likely to participate (or may not participate at all) in lecture sessions if they are being recorded; and
- all of the core instructional content for the course is already available in video format so none of the material covered in the lecture sessions is essential for the course.

For more information on lecture sessions, see the section of the course website titled "Lecture Sessions".

Office Hours

Office-hour sessions will be held by the instructor in order to provide extra help with the course materials as well as discuss other course-related matters with students. These sessions will be offered **online only**.

For more information regarding office-hour sessions, including the schedule for these sessions, refer to the section of the course website titled "Office Hours". (For details on how to attend online meetings, see the section of this document titled "Online Meetings".)

Tutorial Sessions

Time/Location: The time/location of tutorial sessions is given in the information provided at the beginning of this document.

The tutorial time slots will be used by the tutorial TAs to hold sessions in order to help students with course materials. These sessions are to be held **face-to-face**.

For more information on tutorial sessions, see the section of the course website titled "Tutorial Sessions".

Required Texts/Materials

The following references are required for the course:

1. Textbook
   - Michael D. Adams, Signals and Systems, Edition 6.0, University of Victoria, Victoria, BC, Canada, Dec. 2024, ISBN 978-1-990707-07-0 (PDF).
2. Lecture Slides
   - Michael D. Adams, Lecture Slides for Signals and Systems, Edition 6.0, University of Victoria, Victoria, BC, Canada, Dec. 2024, ISBN 978-1-990707-09-4 (PDF).

The above textbook has a corresponding website, whose URL is:

- https://www.ece.uvic.ca/~mdadams/sigsysbook

The textbook and lecture slides can be obtained in PDF format (free of charge) from this website. Print copies of these items can be obtained from the University Bookstore.

Optional Texts/Materials

The following textbook can be considered as a source of additional explanations and extra worked-through example problems:

- A. V. Oppenheim and A. S. Willsky with S. H. Nawab, Signals and Systems, 2nd edition, Prentice-Hall, Upper Saddle River, NJ, USA, 1997, ISBN 0-13-814757-4.

Exams

All exams in the course are written **face-to-face**. All exams are **closed book**. Calculators are not permitted in exams.

Computer and Software Requirements

Each student is required to have access to a computer with the following software installed:

- Zoom. The Zoom software is required for participating in any online meetings held in the course.
- MATLAB. Students will need to use the MATLAB software in order to complete some assignments.

For additional information on how to obtain the MATLAB software, refer to the section of the course website titled "MATLAB".

Course Announcements and Other Important Course Information

Important course announcements are often sent to students via email. Therefore, **students are responsible for checking their email regularly**.

Many important documents for the course are available from the course website. Some of these documents include the following:

- Online Meetings Handout (See the section titled "Online Meetings")
- Assignments Handout (See the section titled "Assignments")
- Course-Materials Bug-Bounty Program Handout (See the section titled "Course-Materials Bug-Bounty Program")
- Course-Materials Errata Handout (See the section titled "Course-Materials Bug-Bounty Program")
- Optional Textbook Handout (See the section titled "Optional Texts/Materials")

Description and Objectives

This course provides an introduction to the fundamentals of continuous-time (CT) and discrete-time (DT) signals and systems. The course is intended to teach students mathematical techniques for the design and analysis of systems.

Topics

The topics covered by the course are as follows:

1. CT and DT signals and systems (6 hours):
    - basic definitions/concepts
    - signal properties
    - system properties
    - basic signal transformations
    - elementary signals
    - signal representations using elementary signals
2. CT and DT LTI systems (6 hours):
    - definition of CT and DT convolution
    - properties of CT and DT convolution
    - representation of signals using impulses

- impulse response and convolution representation of LTI systems
- relationship between impulse response and LTI system properties
- response of LTI systems to complex exponential signals

3. CT Fourier series (CTFS) and DT Fourier series (DTFS) (5 hours):
   - definition of CTFS and DTFS
   - finding Fourier series representations of CT and DT signals
   - basic properties of CTFS and DTFS
   - CTFS/DTFS and frequency spectra
   - CTFS/DTFS and LTI systems
4. CT Fourier transform (CTFT) and DT Fourier transform (DTFT) (8 hours):
   - definition of CTFT and DTFT
   - properties of CTFT and DTFT
   - CTFT/DTFT of periodic signals
   - frequency spectra of CT and DT signals
   - frequency response of CT and DT LTI systems
   - sampling
   - applications of the CTFT and DTFT
5. Laplace transform (LT) and Z transform (ZT) (7 hours):
   - definition of unilateral and bilateral LT/ZT
   - relationship between LT/ZT and CTFT/DTFT
   - properties of the LT and ZT
   - finding the inverse LT and ZT
   - analysis of systems using the LT and ZT

Learning Outcomes

Upon completion of the course, a student should be able to:

1. classify signals based on fundamental properties such as CT/DT, symmetry, and periodicity; and classify systems based on fundamental properties such as linearity, time invariance, causality, and BIBO stability;
2. determine the output of CT and DT LTI systems by performing convolution using graphical, analytical, and tabular methods;
3. transform signals between the time and frequency domains using CTFS/DTFS and CTFT/DTFT in order to analyze spectral content; and characterize LTI systems in the Fourier domain;
4. explain the relationship between CT and DT signals through the Nyquist-Shannon sampling theorem and describe the effects of aliasing;
5. apply the Laplace and Z transforms to model LTI systems via transfer functions and assess system behavior and stability.

Assessment

Weight (%)	Component
10	Assignments (†)
40	Midterm Exams (‡)
50	Final Exam (♠)

Course-Materials Bug-Bounty Program Bonus (★): 1% (of course grade)

(†) Note: The assignments are **equally weighted**. The submission deadlines for assignments will be posted on the course website and/or Brightspace site. **Late assignments will not be accepted and will receive a grade of zero.**

(‡) Note: There are two midterm exams. The midterm exams are **equally weighted**.

All midterm exams are scheduled during the lecture time slots. The dates of the midterm exams are as follows:

- Midterm Exam 1: (XXX) XXX XX, XXXX
- Midterm Exam 2: (XXX) XXX XX, XXXX

(★) Note: See the handout titled "Course-Materials Bug-Bounty Program" for more details.

Grading Appeals

If a student would like to appeal the grade assigned for a particular graded item in the course (such as a midterm exam or an assignment), the student is required to do so **in a timely manner**. Unless an alternative deadline is explicitly stated (in writing) by the instructor, an appeal of a grade must be made **within 10 calendar days** of the grade being released to the student. An appeal must be made **in writing**. The reconsideration of a grade may result in the grade being raised, lowered, or remaining unchanged.

Requests for Academic Concessions

Any request for an academic concession must be made **in writing** and **in a timely manner**. If an exam is missed due to circumstances that may warrant an academic concession, the student must notify the instructor of this (in writing) **within 10 calendar days** of the exam unless physically unable to due so (e.g., due to hospitalization).

Plagiarism Detection Tools

Plagiarism detection software may be used to aid the instructor and/or teaching assistants in the review and grading of some or all student work.

Supplemental Exams

There will be **no supplemental examination** for this course.

Email Correspondence

All email to the instructor should be sent from a **UVic email account**. Due the University's increasingly aggressive spam filtering, the instructor cannot guarantee that he will receive any email sent from non-UVic email accounts.
