EE 338 Discrete-Time Signals and Systems

Section A2, Fall 2008

Instructor: Dr. Mrinal Mandal **Office:** ECERF W2-105

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Marker: Saeed Kaviani **(**for grading assignments**)** **Email:** saeedk@ece.ualberta.ca

Lectures: 11.00-12.20 p.m. Tuesday, and Thursday in NRE 1 003

Seminar/Lab: Tuesday, Wednesday and Friday (depending on your section)
All Labs will be conducted in Room: ETLE5-012.

The lab instructors are:

Ghulam Mustafa (g.mustafa@ece.ualberta.ca) and
Gongpu Wang (gongpu@ualberta.ca, gongpuwang@hotmail.com)

Office Hours: Monday, 2-3 pm and Wednesday, 10-11 am.

Feel free to walk in at other times if I am available. Or, make an email appointment.

Website: http://www.ece.ualberta.ca/~mandal/courses/EE338/

Text Book: Mrinal Mandal and Amir Asif, Continuous and Discrete-time Signals and Systems, Cambridge University Press, Aug 2007.

UofA Bookstore price: $92.95. Amazon.CA price: $52.89 (as of Aug'08)

The textbook is NOT mandatory, but highly recommended.

Syllabus: The course covers the following material.

Weeks	Topics
1	Introduction to Discrete signals and systems (Chapters 1 & 2)
1	Sampling Theory (Chapter 9)
2	Time Domain Analysis (Chapter 10)
3	Discrete Fourier transform (Chapter 11 & 12)
2	z-transform (Chapter 13)
3	Filter Design (Chapters 14 & 15)

Assignments: Assignments are to be submitted in the assignment box by the due date and time. Solutions will be posted after the due date. Assignments may not be completely marked. If you are ill, bring a doctor's note that clearly states the duration of serious sickness to get partial credits for missing assignments.

Examinations: 70 Minutes **closed-book** midterm exam 11 am on Tuesday, Oct 28 , 2008
2.5 hours **closed-book** final exam 9.00 am on Friday, Dec 12, 2008
For midterm and final exams, required formula sheet will be provided.

Course Evaluation:

Assignments:	15%
Lab	15%
Mid-Term:	25%
Final Exam:	45%

Final Grades will be assigned based on relative class standing in terms of overall performance.

Information on the Seminar/Lab

The seminar component has been integrated into the lab. Therefore, there will not be a separate seminar. It will be primarily based on MATLAB, and will be held in the Linux Laboratory in ETLE5 012. Seminars/Labs begin on the week of Sept 15, 2008.

More details will be provided by the Laboratory instructors:
Ghulam Mustafa (g.mustafa@ece.ualberta.ca), and Gongpu Wang (gongpu@ualberta.ca)

The Lab instructors are responsible for the instruction of labs and seminars. The Lab TAs provide assistance to lab instructors during lab sessions, and are responsible for marking lab reports.

Lab TAs: Gencheng Guo (gencheng@ualberta.ca), Tao Xu (tx1@ualberta.ca)

Lab Website: http://www.ece.ualberta.ca/~ee338/

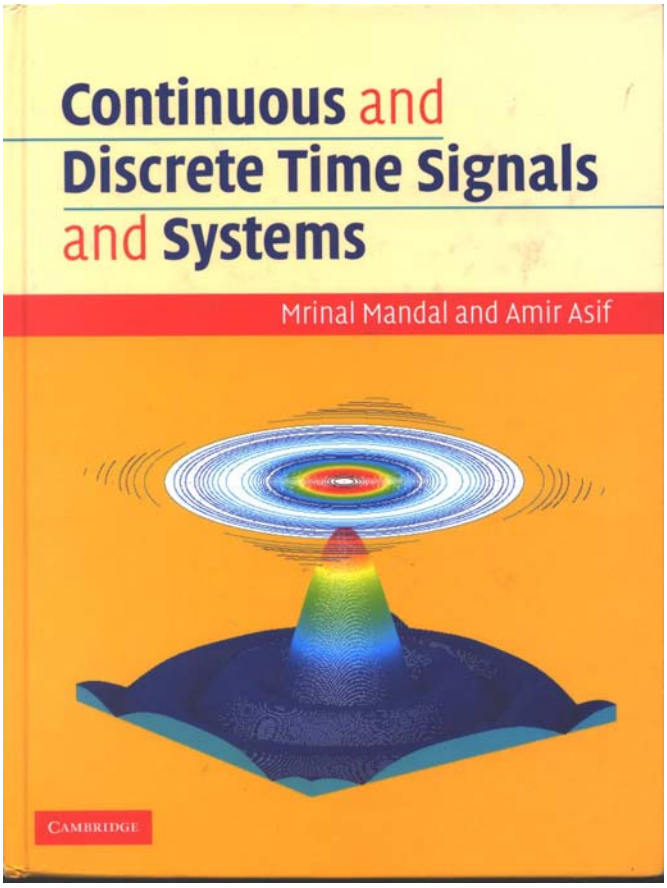
Additional Information:

Assignment Grading: If you are not satisfied with assignment grading, send an email to Gencheng Guo (gencheng@ualberta.ca) who will grade the assignments, and try to sort out the issue. If you are still not satisfied, let me know.

Mid-Term and Final Exams: The exams are closed book. No course materials are allowed. A formula sheet, however, will be provided. **Only approved nonprogrammable calculator** will be allowed (No excuse will be entertained for bringing programmable calculators). For mode details on calculator policy: http://www.engineering.ualberta.ca/calculator.cfm.

Academic Honesty: You are encouraged to discuss course material, assignments and the computer laboratory material with your colleagues; however, any material that you hand in must be your own work. Please refer to the Plagiarism and Cheating and the Code of Student Behavior Links on the Course site.

The Textbook



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The textbook materials primarily originated from my course notes for EE238 and EE338. In this sense, this textbook can be considered as custom designed for our signals and systems courses. Chapters 1-6 cover EE238 materials, and Chapters 1-2, 9-15 cover EE338 materials. The remaining chapters {7,8,16,17} presents additional topics that can be self-studied by interested students. Some advantages of the book are:

(i) Low cost. The competitive textbooks are 2-3 times costly (>CAD 150).

(ii) It emphasizes on the important concepts discussed in the class.

(iii) The MATLAB examples are provided in the accompanying CD. These will be of great help in the lab as well as during study. You can just copy the MATLAB code from the CD and run many experiments.

(iv) It can be used as a reference book on Digital Signal Processing in your post graduation life.