MATHEMATICS 113 (H1) – FALL 2012

COURSE OUTLINE

1. INSTRUCTOR:

E. K. Leonard – CAB 679 (e-mail: eleonard@ualberta.ca).

2. OFFICE HOURS:

MWF: 2:30–3:30 p.m. or by appointment.

3. PREREQUISITE:

Pure Math 30, or equivalent. It is important that students have a good grasp of the material covered in Math 10, 20 and 30. Students who have taken Math 31 are encouraged to register in Math 114.

4. TEXTBOOK:

Calculus, Early Transcendentals, 7th edition, by James Stewart. You can choose one of the following three options.

(1) **For students who do not want a physical copy of the textbook**, it will suffice to purchase stand-alone access to Enhanced Web Assign (EWA), available at the Special Services Desk. ISBN: 0538738073.

(2) **For students who would prefer a physical copy of the textbook and who will NOT be taking second-year calculus courses** (i.e., only taking Math 113, or Math 113 and 115), you may purchase:

Hardcover bundle *Single Variable Calculus, Early Transcendentals*, 7th edition. ISBN: 0495962759. This bundle includes one Student Solutions Manual and one Life of Edition access code to Enhanced WebAssign with digital Youbook (e-book).

(3) **For students who would prefer a physical copy of the textbook and who will be taking second-year calculus courses,** you may purchase:

Hardcover bundle, *Calculus, Early Transcendentals*, 7th edition. ISBN: 1133299938. This bundle includes two Student Solutions Manuals (Single Variable and Multi Variable) and Life of Edition access code to Enhanced WebAssign with digital Youbook (e-book).

5. COURSE OBJECTIVES:

This course is an introduction to calculus as a basic mathematical tool in solving optimization, rate of change and area problems. The objective of the course is to provide a basic knowledge of calculus and its applications.

6. SYLLABUS:

Appendices (Precalculus): A, B, C, D and E (at the end of the textbook)
Chapter 1 (Functions): 1.1, 1.3, 1.5, 1.6 (omit inverse trig functions)
Chapter 2 (Limits and Derivatives): 2.1, 2.2, 2.3, 2.5–2.8
Chapter 3 (Differentiation Rules): 3.1–3.7, 3.9, 3.10
Chapter 4 (Applications of Differentiation): 4.1–4.3, 4.5, 4.7, 4.9
Chapter 5 (Integrals): 5.1–5.5

7. CALCULATORS AND FORMULA SHEETS:

Use of calculators or formula sheets during exams is **not** permitted. You will not be asked to perform any extensive calculations on exams.

8. GRADING SCHEME:

Final Exam (Dec. 13, Thursday, 2 p.m.) 50%
Midterm Exam (Oct. 24, Wednesday, in class) 30%
Homework Assignments 10%
Lab Quizzes 10%

An overall course grade of 50% or more guarantees a passing grade of at least D, and an overall course grade of 90% or more guarantees a grade of at least A-.

9. DEFERRED EXAMINATIONS:

There will be **NO deferred midterm examination**. If you have a valid reason (incapacitating illness, severe domestic affliction or other compelling reasons, e.g., sports team obligation) for missing the exam, the weight of the midterm will be transferred to the final exam. Students are required to submit supporting documentation pertaining to the absence to the instructor within 48 hours of missing the exam or as soon as able. In the case of an incapacitating illness, either a medical note or a statutory declaration (which can be obtained at the students' Faculty office) will be accepted.

The **deferred final examination** (for those who qualify) is scheduled as follows: Saturday, January 12, 2012, at 9:00 a.m. in CAB 357. You are asked to be at the location at 8:30 a.m. to register. Please note that students are required to apply for deferred final exams at their faculty office.

10. ASSIGNMENTS:

Assignments will consist of online assignments (a total of 10 assignments). When calculating the final mark for the assignments, the lowest mark will be omitted, i.e., the best 9 out of 10 marks will be counted.

We use Enhanced Web Assign for online assignments. Each student is required to register on EWA using the **access code** that comes with a new copy of the textbook (or a stand-alone access code). You will need the following **class key** particular to this class and section (H1) to register: **ualberta 0136 4966**.

11. LABORATORIES:

You should be registered in one of the laboratory sections corresponding to your lecture section (i.e., Labs H2–H9). Math 113 labs will start on Sept. 10 (Monday). The Lab Manual for this course can be purchased in CAB 680, Sept. 5–7, 10–14, 08:30–16:30.

Each lab will consist of two parts. During the first 30 minutes or so of each lab, your TA will assist you with any difficulties you may have encountered with the exercise problems. It is very important that **you try these problems before coming to the lab**. There is not enough time for your TA to provide assistance with all of the problems during the lab. The second part (about 20 minutes) will involve writing a quiz based on the those problems.

When calculating the term lab mark, the lowest quiz mark will be dropped. If you miss a lab because of illness, etc., the missed lab will be the one omitted.

12. HELP SESSIONS:

Additional help will be available on a first-come first-serve basis in CAB 528. The hours are Monday–Friday, 9 a.m. to 3 p.m.

Decima Robinson Support Centre for Mathematical and Statistical Sciences is offering a pre-calculus program which runs for five weeks concurrently with the calculus course. Please note that this course is **not** a required course. The program covers the high school material that you may have missed/forgotten. The cost of the program is $180 and students can register at

the Support Centre (CAB 528) during the first few weeks of classes. For more information, visit the department web site.

The Support Centre will be conducting optional weekly seminars to recap lecture materials covered during the week from 3 to 4 p.m. on Fridays in CAB 239.

13. WEB SITES:

Lab material, lab quiz solutions, etc. will be posted on the e-class site. Go to

www.ualberta.ca

and choose e-class in the upper right-hand side of the screen.

Other course materials which are particular to our class Math113 (H1) such as the **course outline, exercise problems, exam practice problems and their solutions, etc.** will be posted on **my web site (not e-class)**:

http://www.math.ualberta.ca/~eleonard/

14. CODE OF STUDENT BEHAVIOUR:

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the Univerity in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behavior (www.ualberta.ca/secretariat/appeals.htm) and avoid any behavior which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

15. RECORDING OF LECTURES:

Recording is **not** permitted unless it is part of an approved accommodation plan.

16. SSDS:

Students who require accommodations in this course due to a disability affecting mobility, vision, hearing, or mental or physical health are advised to discuss needs with Specialized Support and Disability Services, 2-800 SUB.

APPROXIMATE SCHEDULE (Math 113 (H1) Fall 2012):

We may be slightly ahead or behind at some time but it will work out in the end.

Month	Dates	Lectures
Sept.	5 – 7	(Mon.: Labor Day), 1.1, 1.2 (include App. A, B, C)
	10 – 14	App. D, 1.3, 1.5
	17 – 21	1.6 (omit inv. trig. fcns), 2.2, 2.3
	24 – 28	2.3, 2.5, 2.6
Oct.	1 – 5	2.6, 2.1/2.7, 2.8
	8 – 12	(Mon.: Thanksgiving), 3.1, 3.2
	15 – 19	3.3, 3.4, 3.5
	22 – 26	Review, **Midterm (Wed.)**, 3.6, 3.7 (briefly)
Oct./Nov.	29 – 2	3.9, 3.10, 4.1
	5 – 9	4.2, 4.3, 4.5
	12 – 16	(Mon/Tue: Remembrance Day Holiday/Fall Break), 4.7, 4.9/5.4
	19 – 23	4.9/5.4, App. E, 5.1, 5.2
	26 – 30	5.2, 5.3, 5.5
Dec.	3 – 5	5.5, Review
	13	**Final Exam (Thurs., 2 p.m.)**