

**MAT187H1S CALCULUS II: Course Information as of August 23, 2008**

MAT187H1S is the direct continuation of MAT 186H1F, and uses the same book. We will do most of Chapters 7, 8, 9 and 10, plus selected sections of Chapters 11 and 12.

**Section Instructors:** By now you should be scheduled into one of the following Sections:

LEC0101	Milgram, P.	LEC0103	Krepski, D
LEC0102	Zong, Y.	LEC0104	Burbulla, D.

**Textbook:** Edwards & Penney's *Calculus*, 7th edition, Early Transcendentals Version.

**Marking Scheme:** Assignments: 5% Test 1: 20% Test 2: 20% Final Exam: 55%

**Tests:** Ninety-minute term tests are scheduled for Thursday, Feb 5th and Thursday, Mar 12th, 6:15-7:45PM. Locations will be announced during the term.

**Homework:** Some of the exercises from the textbook have been selected as homework problems. (See reverse.) You can work on these problems on your own time or get help from a TA in the tutorials.

**Tutorials:** By now you should be scheduled into one tutorial. It is important that you attend tutorials on a regular basis; it is one place you can get help with your homework, and it is the **only** place you can hand in your assignments. The first day of tutorials is Monday, Jan 12th; the last day of tutorials is Thursday, April 9th.

**Assignments:** you will be asked to hand in one homework problem at the end of your tutorial during the weeks of Jan 19th, Jan 26th, Feb 23rd, Mar 2nd, Mar 23rd, Mar 30th and Apr 6th. Each problem will be marked on a 0, 1 or 2 basis as follows: 2 = perfect; 0 = really bad; 1 = anything in between. Your assignment mark will be the total of your seven assignment marks divided by 7, up to a maximum of 2.

**Math Aid Hours:** The math aid office is SF B670. Hours: TBA

**Final Exam:** There will be a common final exam, 2 and 1/2 hours long, to be scheduled by the Faculty office during the exam period, April 17th to May 1st.

**Calculators:** Use of a Casio 260, Sharp 520, or Texas Instrument 30 calculator will be permitted during all quizzes, tests and exams. However, it is still your responsibility to explain your work. A correct answer with no justification will receive little or no marks.

**Chapter 11:** the material on vectors in Sections 11.1 to 11.4 is the same as material covered in MAT 188H1F, and will *not* be repeated in MAT 187H1S. However, the notation in Edwards and Penney is slightly different:  $|\mathbf{v}|$  is the length of a vector; and a vector is represented by pointed brackets,  $\langle \dots \rangle$ , not square brackets,  $[\dots]$ .

In Section 11.6 we will only cover Arc Length, p 865.

**Course Coordinator:** D. Burbulla.

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office hours: TBA

**Course Websites:** <http://www.math.toronto.edu/burbulla/>

**Course Outline and Homework Exercises:** The following sequence of 38 lectures is only an approximate schedule. Some topics may be added or deleted.

Lectures	Topic	Reference	Homework Exercises
1 to 9	Techniques of Integration	Sec 7.2 Sec 7.3 Sec 7.4 Sec 7.5 Sec 7.6 Sec 7.7 Sec 7.8	#9, 13, 15, 17, 19, 25, 27, 29, 33, 49 #3, 7, 9, 20, 21, 23, 35, 41, 51, 57 #1, 7, 13, 17, 27, 31, 43, 47, 57, 59 #5, 7, 9, 13, 21, 23, 25, 35, 39, 51 #3, 9, 19, 23, 27, 31, 33, 47, 49, 51 #3, 5, 9, 13, 17, 19, 21, 33, 47, 49 #5, 7, 19, 25, 31, 37, 45, 47, 53, 61
10 to 17	Differential Equations (skip Euler's Method)	Sec 8.1 Sec 8.2 Sec 8.3 Sec 8.4 Sec 8.5 Sec 8.6 Sec 8.7	#5, 7, 13, 19, 23, 31, 36, 37, 41, 43 #1, 3, 5, 7, 9 #3, 7, 9, 11, 15, 19, 23, 27, 32, 39 #3, 5, 11, 15, 19, 23, 27, 31, 33, 43 #3, 5, 9, 15, 17, 19, 21, 27, 29, 33 #3, 7, 11, 15, 19, 21, 25, 27, 29, 33 #3, 5, 7, 9, 21, 27, (#11, 13, 15, 17 optional)
18 to 24	Polar Coordinates; Parametric Curves in 2 & 3 Dimensions; Arc Length	Sec 9.2 Sec 9.3 Sec 9.4 Sec 9.5 Sec 11.5 Sec 11.6	#7, 15; #25-63 odd #5, 9, 15, 17, 19, 21, 23, 27, 29, 35 #5, 9, 13, 15, 17, 19, 25, 27, 29, 31 #5, 11, 13, 19, 25, 27, 33, 35, 43, 47 #9, 13, 17, 21, 31, 45, 49, 51, 55, 65 #1, 3, 5
25 to 34	Infinite Series	Sec 10.2 Sec 10.3 Sec 10.4 Sec 10.5 Sec 10.6 Sec 10.7 Sec 10.8 Sec 10.9	#11, 19, 27, 29, 35, 41, 45, 49, 53, 59 #7, 9, 11, 19, 25, 31, 47, 51, 65, 69 #5, 7, 13, 19, 23, 27, 29, 31, 33, 37 #5, 7, 13, 15, 19, 29, 37, 39, 43, 45 #5, 11, 17, 19, 21, 27, 31, 35, 39, 41 #1-37 odd; #43, 45, 51, 53, 59 #3-25 odd; #31-53 odd #1, 5, 13, 19, 25, 31, 35, 41, 45, 49
35 to 38	Partial Derivatives	Sec 12.2 Sec 12.4 Sec 12.5 Sec 12.10	#5, 7, 25, 27, 33, 35, 41, 43, 53, 55 #7, 11, 15, 27, 35, 37, 55, 58, 63, 65 #15, 19, 31, 37, 43, 45, 51, 55, 57, 60 #5, 7, 11, 15, 17, 21, 23, 25, 29, 33