MAT186H1F CALCULUS I: Course Information as of August 26, 2014

MAT186H1F is an introduction to calculus and its applications. A lot of Chapters 1, 2, 3 & 4 will be review of high school material, but not *all* of it; you must pay attention and assimilate the new material as well. We assume that everything in Chapters 5 and 6 is new to you.

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

Lec0101 Cohen, S.	Lec0102 Li, N.	Lec0103 Burbulla, D.	Lec0104 Zaman, A.
Lec0105 Timorabadi, H.	Lec0106 Reiss, D.	Lec0107 Shorser, L.	Lec0108 Watson, N.

Textbook: the textbook for this course is Briggs, Cochrane & Gillet's *Calculus for Scientists and Engineers,* Early Transcendentals. Any version of this book will do. The standalone physical book has ISBN 978-0321-785374 and should be available–new or used–at any of the three textbook stores around campus. For a price very similar to a new textbook you can obtain a package, ISBN 978-0321-837721, which includes the textbook and an Access Card which will allow you to access MyMathLab and an online interactive version of the textbook, with solutions manuals and an additional chapter on Second Order Differential Equations. The third and cheapest option is to buy just the online version, ISBN 978-0321-785800, at `http://www.mymathlab.com` The course ID is: `burbulla77566` . (Access Code kits will be available separately for students who already have a physical copy of the book and would like access to the online version.)

Homework: some exercises have been picked as suggested homework; see the back of this page. These are the ones that your TA should be prepared to help you with.

Tutorials: you should attend your tutorial on a regular basis; it is one place you can get help with your homework. However, it is totally impractical to assume that *all* the homework questions can be covered in tutorial; you should try and solve as many homework problems as you can, *on your own,* and then ask your TA about the questions you couldn't get. Tutorials start Monday, Sep 8*th* and end Monday, Dec 1*st*. There are no tutorials on Monday, Oct 13*th*. Each tutorial group will meet twelve times.

Marking Scheme: WeBWorK Assignments: 5%; Test 1: 20%; Test 2: 25%; Exam: 50%

WeBWorK: information regarding this on-line homework website will be posted on the course website in the second week of classes. WeBWorK homework will not begin before September 22.

Test 1: a 100-minute term test is scheduled for Tuesday, Oct 7, 12:15-1:55 PM, locations TBA.

Test 2: a 100-minute term test is scheduled for Tuesday, Nov 11, 12:15-1:55 PM, locations TBA.

Final Exam: there will be a common final exam, 150 min long, during the exam period, Dec 8-19.

Math Aid Office: GB 149. Hours: MW 12-1, 3-4; TR 12-3

Calculators: use of a Casio FX-991MS or Sharp EL-520X 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 no marks.

Course Coordinator: D. Burbulla. Office: GB 149; email: burbulla@math.toronto.edu;

office hours: MW 12-1, 3-4; TR 12-3

Course Websites: in addition to the course websites which can be accessed through the U of T portal there is the coordinator's home page: `http://www.math.toronto.edu/burbulla/`

Course Outline, Lecture Schedule and Tutorial Schedule: below are approximate schedules of lecture and tutorial topics. As some lectures will be missed on Monday, Oct 13*th*, the schedule presumes only 38 lectures. Sections marked with an asterisk (*) are theoretical, and should be covered in class but may not be tested. What each test covers will be announced during the term.

Chapter	Section	Suggested Homework Exercises
Functions (3 lectures)	Sec 1.3	11, 17, 25, 28, 29, 37, 51, 57, 65, 73
	Sec 1.4	13, 36, 39, 59, 61, 79, 85, 95, 101, 103
Limits (5 lectures)	Sec 2.1	1, 3, 4, 10, 16, 25, 28, 29, 31, 32
	Sec 2.2	2, 3, 5, 7, 11, 17, 21, 22, 28, 45
	Sec 2.3	3, 5, 37, 41, 47, 51, 57, 67, 73, 79
	Sec 2.4	3, 4, 11, 15, 21, 24, 31, 39, 44, 53
	Sec 2.5	11, 23, 29, 32, 37, 41, 43, 55, 59, 69
	Sec 2.6	1, 9, 17, 25, 31, 35, 55, 67, 80, 95
Derivatives (7 lectures)	Sec 3.1	5, 15, 21, 31, 39, 49, 54, 55, 65, 69
	Sec 3.2	2, 27, 31, 37, 41, 47, 61, 63, 69, 71
	Sec 3.3	18, 25, 27, 39, 43, 53, 55, 60, 61, 81
	Sec 3.4	8, 10, 15, 22, 23, 34, 49, 59, 67, 77
	Sec 3.5	3, 9, 15, 17, 25, 30, 31, 39, 45, 49
	Sec 3.6	6, 15, 29, 33, 35, 37, 47, 60, 79, 85
	Sec 3.7	1, 9, 10, 21, 27, 35, 41, 53, 57, 72
	Sec 3.8	10, 15, 27, 41, 49, 53, 63, 67, 81, 93
	Sec 3.9	1, 5, 9, 13, 25, 31, 35, 42, 45, 47
	Sec 3.10	5, 9, 13, 19, 23, 25, 29, 41, 51, 53
Applications of the Derivative (9 lectures)	Sec 4.1	1, 5, 17, 21, 29, 39, 47, 71, 75, 81
	Sec 4.2	23, 28, 34, 45, 47, 49, 57, 65, 81, 88
	Sec 4.3	11, 19, 25, 27, 29, 30, 47, 69, 71, 77
	Sec 4.4	7, 14, 21, 22, 27, 33, 37, 47, 53, 65
	Sec 4.5	16, 17, 25, 27, 30, 32, 36, 43, 51, 54
	Sec 4.6*	3, 7, 11, 17, 22, 27, 31, 33, 37, 39
	Sec 4.7	15, 19, 27, 43, 51, 57, 59, 65, 85, 96
	Sec 4.8	6, 11, 13, 16, 17, 20, 29, 31, 35, 37
	Sec 4.9	25, 27, 35, 41, 51, 66, 71, 93, 97, 99
Integration (5 lectures)	Sec 5.1	9, 13, 17, 21, 32, 33, 37, 65, 67, 71
	Sec 5.2*	1, 3, 16, 23, 29, 43, 67, 71, 73, 75
	Sec 5.3	11, 24, 39, 47, 59, 65, 67, 81, 89, 98
	Sec 5.4	11, 14, 23, 25, 39, 45, 47, 48, 57, 61
	Sec 5.5	14, 25, 27, 35, 36, 47, 57, 71, 77, 79
Applications of Integration (9 lectures)	Sec 6.1	8, 11, 17, 21, 28, 35, 39, 53, 56, 65
	Sec 6.2	8, 11, 15, 17, 24, 29, 37, 47, 55, 63
	Sec 6.3	3, 9, 13, 19, 32, 39, 41, 49, 54, 59
	Sec 6.4	7, 14, 17, 24, 29, 31, 33, 35, 43, 57
	Sec 6.5	3, 7, 8, 9, 13(a), 19(a), 27, 30
	Sec 6.6	7, 11, 14, 17, 22, 24, 31, 32
	Sec 6.7	11, 15, 18, 21, 27, 31, 32, 35, 53
	Sec 6.8*	9, 16, 23, 25, 29, 38, 54, 57, 62, 65
	Sec 6.9	9, 13, 15, 23, 27, 29, 30, 38
	Sec 6.10	27, 29, 33, 35, 39, 55, 57, 61, 64, 65

Tutorial	Material/Exercises
Sep 8 - Sep 12	General Advice Sec 1.3 & 1.4
Sep 15 - Sep 19	Sec 1.4 Sec 2.1, 2.2 & 2.3
Sep 22 - Sep 26	Sec 2.4, 2.5 & 2.6
Sep 29 - Oct 3	Sec 2.6 Sec 3.1, 3.2 & 3.3
Oct 6 - Oct 10	Sec 3.4, 3.5, 3.6 & 3.7
Oct 14 - Oct 20	Sec 3.8, 3.9 & 3.10 Sec 4.1
Oct 21 - Oct 27	Sec 4.2, 4.3, 4.4 4.5 & 4.6
Oct 28 - Nov 3	Sec 4.7, 4.8 & 4.9
Nov 4 - Nov 10	Sec 4.9 Sec 5.1, 5.2 & 5.3
Nov 11 -Nov 17	Sec 5.3, 5.4 & 5.5
Nov 18 - Nov 24	Sec 6.1, 6.2, 6.3 & 6.4
Nov 25 - Dec 1	Sec 6.5, 6.6, 6.7 & 6.9