MAT187H1S CALCULUS II: Course Information  
February 28, 2014
MAT187H1S is the direct continuation of MAT186H1F, and uses the same book. We will do most of Chapters 7, 8, 9 and 10, plus selected sections of Chapters 12 and 13.

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

<table>
<thead>
<tr>
<th>LEC0101</th>
<th>Cohen, S.</th>
<th>LEC0103</th>
<th>Huang, J. J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEC0102</td>
<td>Burbulla, D.</td>
<td>LEC0104</td>
<td>Milgram, P.</td>
</tr>
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</table>

Textbook: Anton, Bivens & Davis’s Calculus, Early Transcendentals Version, 10th ed. This textbook is available in the Engineering textbook store.

Marking Scheme: Term test one: 20%; Term test two: 25%; WeBWorK Assignments: 5%; Final Exam: 50%

WeBWorK Assignments: We will not start using WeBWorK until after Jan 19, which is the deadline for adding a course. More information will be supplied later.

Homework: questions on the reverse of this sheet are suggested practice problems. You can get help for these problems in tutorial, or in the math aid centre, GB149.

Tutorials: start on Friday, January 10th and end on Thursday, April 10th.

Tests: term tests have been scheduled for Thursday, January 30th and Thursday, March 13th, 6:00-8:00 PM. Locations will be announced during the term.

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 14th to April 30th.

Math Aid Hours: The math aid office is in GB149. Hours: Thu 10AM-4PM and Fri 1-3PM.

Calculators: Use of a Casio FX-991 or Sharp EL-520 calculator will be permitted during 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 11.2 to 11.6 is the same as material covered in MAT188H1F; it will not be repeated in MAT187H1S.

Course Coordinator: D. Burbulla.
Office: GB149; email: burbulla@math.utoronto.ca; office hours: Thu 10AM-4PM and Fri 1-3PM.

Course Websites: in addition to the Portal, which will be used to post announcements and test marks, there are websites for

Course Coordinator: http://www.math.utoronto.ca/burbulla/
**Course Outline and Homework Exercises:** The following sequence of 38 lectures is only an approximate schedule. Some topics may be added or deleted.

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Topic</th>
<th>Reference</th>
<th>Suggested Homework Problems</th>
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<tr>
<td>1 to 9</td>
<td>Principles of Integral Evaluation (pp 526-528)</td>
<td>Sec 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7</td>
<td>#1, 4, 5, 11, 13, 15, 19, 21, 23, 25, 28, #1, 3, 5, 13, 15, 19, 20, 25, 28, 31, 35, 47, 50, 62, 66, #3, 6, 7, 14, 19, 20, 27, 29, 31, 45, 47, 59, #3, 7, 8, 11, 15, 17, 19, 23, 35, 38, 39, 47, #1, 5, 7, 10, 13, 16, 19, 23, 27, 28, 31, 42, 43, #15, 37, 51, 55, 81, 90, 93, #2, 5, 9, 18, 26, 29, 31, 35, 45, 53, #2, 4, 6, 26, 30</td>
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<td>10 to 15</td>
<td>Mathematical Modeling with Differential Equations</td>
<td>Sec 8.1, 8.2, 8.3, 8.4, Appx L</td>
<td>#3, 5, 10, 11, 12, 16, 17, 18, 21, 32, 36, #2, 3, 7, 12, 13, 27, 30, 32, 33, 47, 53, 55, 59, 66, #1, 2, 3, 5, 6, 23, #1, 3, 4, 7, 8, 9, 10, 14, 21, 26, 27, 28, #2, 4, 6, 8, 12, 14, 16, 18, 19, 22, 33, 39, 40, 41</td>
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<td>16 to 27</td>
<td>Infinite Series</td>
<td>Sec 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10</td>
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<tr>
<td>28 to 32</td>
<td>Parametric and Polar Curves</td>
<td>Sec 10.1, 10.2, 10.3</td>
<td>#3, 7, 10, 15, 21, 39, 40, 45, 46, 53, 62, 65, 67, 69, #1, 4, 6, 7, 11, 19, 20, 26, 30, 34, 35, 37, 40, 45, 46, #3, 7, 11, 13, 18, 22, 27, 31, 33, 37, 39, 41, 45, 54</td>
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<tr>
<td>33 to 35</td>
<td>Vector-Valued Functions</td>
<td>Sec 12.1, 12.2, 12.3, 12.6</td>
<td>#3, 6, 7, 8, 9, 10, 13, 14, 17, 21, 23, 24, 27, 43, #3, 9, 10, 14, 15, 19, 21, 23, 25, 29, 33, 37, 40, 47, #1, 3, 4, 6, 7, 9, 11, 13, 15, 23, 24, 27, 29, 41, #5, 6, 13, 20, 25, 27, 55, 59, 61, 67</td>
</tr>
<tr>
<td>36 to 38</td>
<td>Partial Derivatives</td>
<td>Sec 13.1, 13.3, 13.8</td>
<td>#5, 11, 17, 18, 21, 33, 38, 43, 65, 67, #1, 3, 7, 9, 11, 27, 37, 43, 61, 67, 77, 85, 87, 95, 101, #1, 3, 9, 10, 11, 19, 37, 40, 42</td>
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**Tutorial Schedule:** this is a tentative schedule of what TA’s should be prepared to do, week by week.

- Tut 1: General Advice; Sec 7.1, 7.2
- Tut 2: Sec 7.3, 7.4, 7.5
- Tut 3: Pre-test Q & A
- Tut 4: Tests returned
- Tut 5: Sec 8.1, 8.2, 8.4
- Tut 6: Appendix L
- Tut 7: Sec 9.1, 9.2, 9.3, 9.4, 9.5, 9.6
- Tut 8: Pre-test Q & A
- Tut 9: Tests returned
- Tut 10: Sec 9.7, 9.8, 9.9, 9.10
- Tut 11: Sec 10.1, 10.2, 10.3
- Tut 12: Sec 12.3, 12.6

However, if you ever have any particular problem you would like your TA to do in tutorial, you can always email your TA before tutorial, indicating which question(s) you would like your TA to go over.