

Carleton U, School of Math & Stats
Multivariable Calculus
for Engineering or Physics
Math 2004-C

Lecturer: Dr. RJ Cova

Fall 2014

- ✎ OFFICE: HP 5250. TELEPHONE: 520-2600 ext 1983.
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- ✎ TEXTBOOK: Multivariable Calculus, by Soo T. Tan, Brooks/Cole 2010.
- ✎ Pre-REQUISITES.- Any of the following: *Math 1005 or Math 2007. *MATH 1104 or MATH 1107. *Permission from the School of Math & Stats.
- ✎ LECTURES: T, R, 16:05 - 17:25 h @ AT 302.
- ✎ OFFICE HOURS: By appointment.
- ✎ TUTORIALS.- R, 10:35 - 11:25 h. Attendance is not mandatory, but it would be unwise in you not to attend because our great TAs are a fundamental aid to your training.
Group C1: SA 402. Group C2: SA 413.
Group C3: SA 516. Group C4: SA 520.

- ✎ CONTENTS: Plane curves and polar coordinates [parametric equations, areas, arc lengths, &c] (chapter 10). Vectors and the geometry of space [equations of lines and planes, surfaces, cylindrical and spherical coordinates, &c] (chapter 11). Functions of several variables [partial derivatives, gradients, Lagrange multipliers, &c] (chapter 13). Multiple integrals [double and triple integrals, surface area, &c] (chapter 14). Vector analysis [fields, divergence, curl, line integrals, Green's theorem, Gauss' theorem, Stokes' theorem, &c] (chapter 15).
Sections in the textbook: 10.2 - 10.5; 11.1 - 11.7; 13.2 - 13.9; 14.1 - 14.8; 15.1 - 15.9.

- ✎ EVALUATION: Term Tests 60%. Final Exam 40% or 100%, whichever variant favours the student.

- TESTS AND TUTORIALS: There will be five Tests in the tutorial sessions of 25 September, 09 October, 23 October, 13 November, 20 November. **The arithmetic mean of the best four Tests out of five will count for 60 % of the final mark.** Should you wish to review a Test please advise your TA within one week of having received the Test in question. We regret that no make-up, early, or delayed Tests can be accommodated. Any missing Tests shall count as zero except for ill-health –supported by a valid medical note– in which case we will average your best three Tests (even if you miss more than one Test).
- FINAL EXAMINATION: This is the customary three-hour exam scheduled by the University, to be applied sometime during the period 10-21 December. Kindly check the examination timetable in due course. Please be very careful, for in order to use the 100 % Final Exam option you ought to take at least three term Tests. Students wishing to see their examination papers must make an appointment within three weeks of the examination.

Participants absent from the Final Examination may be eligible for a deferred exam; please check the eligibility criteria in the Registrars Office. However, please note that students who sit less than two Tests and are absent from the Final Exam will be assigned the grade FND: failure with no deferred Final Examination allowed.

- ✍ MEMORANDA, CALCULATORS: We apologise that we cannot allow any memoranda in the Tests. However, the use of non-programmable, non-graphing calculators is perfectly alright.
- ✍ HOMEWORK: A lot of exercises will be suggested. These are not to be handed-in nor graded but they are vital for your success in this excellent subject.
- ✍ Math TUTORIAL CENTRE: This is a very good facility located @ HP 3422. Swing by for more details.
- ✍ WITHDRAWAL: The last day for withdrawing the course with a convenient full fee adjustment is 30 September.
- ✍ STUDENTS WITH DISABILITIES who require academic accommodation should contact the Paul Menton Centre, 500 University Centre, to complete the relevant forms. The deadline for submitting the latter for formally scheduled exam accommodation is 7 November. Detailed information can be found in the university website.

- This outline may be subject to changes in the event of extenuating circumstances •