McGill University
Department of Mathematics and Statistics
MATH262 Intermediate Calculus

COURSE OUTLINE

Instructor:
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Restriction
Open only to students in the Faculty of Engineering. Not open to students who are taking or have taken MATH 151, MATH 152, or MATH 222.

Pre requisites
MATH 141 and MATH 133 or equivalent.

Textbook
The designated textbook for this course is "Calculus: Multivariable" (9th edition) by Stewart, Clegg and Watson, but it is not mandatory. If you possess any other text covering all the material, you may not wish to buy the designated text. In particular, any prior edition of Stewart (Calculus: Several Variables) is more than satisfactory. We will also offer a link to free, online resources. The key to doing well in this course is to do lots of exercises. Whether these come from Stewart or any other textbook is immaterial.

Syllabus
Series, power series, Taylor and MacLaurin series. Brief review of vector geometry. Vector functions and curves. Partial differentiation and differential calculus for vector valued functions. Unconstrained and constrained extremal problems. Multiple integrals, including change of variables. Curves and the Frenet Frame.

Course Content, as covered in Stewart, Clegg and Watson.
1. Sequences and Series (Chapter 11)
2. Vectors (Chapter 12)
3. Partial Differentiation (Chapter 14)
4. Multiple Integrals and Polar Coordinates (Chapter 15 and Chapter 10)
5. Curves (Chapter 13)

Tutorials and Helpdesk
Things being what they are, the course will be entirely online. You will have the choice of 2 instructors, please attend the lecture you want. Details to come as an announcement on myCourses. The course has a weekly tutorial, which you are already signed up for. You are expected to attend. These too will be online, via Zoom. The Departmental Helpdesk is also available online for you. They have a Facebook page: BH911 Math Help Desk, and will have Zoom meetings Monday to Friday, 10am to 5pm.

Assignments
There will be Webwork assignments. These are web-based assignments graded by the computer. There may also be hand-written assignments. Details to come.

Exams
There will be an online timed Midterm examination, as well as an online timed final exam during the final exam period. In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Marking scheme
Final mark =25% assignment mark + 25% midterm mark + 50% final exam mark.

Academic integrity
McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see http://www.mcgill.ca/students/srr/honest/ for more information).

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.