

DETAILED MATH 1LS3 COURSE OUTLINE

If you plan to apply for a program (such as pharmacy, optometry, dentistry, etc.) that requires calculus, and are asked to present a detailed course outline, then go [here](#) and use the information provided (you can print the page, or direct the school to visit the same page at <http://www.math.mcmaster.ca/lovric/1LS3/1LS3courseoutlineph.html>). As well, you can visit the Science Career Services (BSB/127) where you will be able to obtain information about course equivalences for various schools, professional degree programs, etc. You can also visit their [webpage](#), to see what's there and to make an appointment to talk a counselor.

IMPORTANT MESSAGE: COUSE OUTLINE IS TENTATIVE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances (such as a strike, or a swine flu outbreak). If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

*** A copy of this course outline will be included in your Coursepack. You can also [download it in pdf format](#). The outline of activities and the marking scheme are for general guidance only. The instructor reserves the right to modify parts of either as circumstances may dictate. ***

MATH 1LS3 FALL 2017 COURSE INFORMATION

You are expected to check the web page often, at least after each lecture (if you think you will not be able to do it, talk to your lecturer as soon as possible)

Instructors:

Fall 2017 Coordinator and Instructor:
Miroslav Lovric (office: Hamilton Hall 411)
email: lovric@mcmaster.ca

Instructors for the remaining two sections in term 1, as well as for the winter 2018 and the spring 2018 terms will be announced on this web page.

For lecture and tutorial times and locations check your Mosaic site.

Lectures AND tutorials are integral parts of the course and you should plan to attend them regularly.

Textbook:

"Calculus for the Life Sciences: Modelling the Dynamics of Life", by F. R. Adler and M. Lovric, Second Canadian Edition, published by Nelson Education, 2015. ISBN10: 0-17-653078-9. ISBN13: 978-0-17-653078-5. You will also need Math 1LS3 Coursepack (All Sections, 2015/2016)

Material covered in the course (selection from the following chapters):

- * Models and Functions (Chapter 1)
- * Elementary functions and models (Chapter 2)
- * Discrete-time dynamical systems (Chapter 3)
- * Limits and basic notions of continuity, as they relate to applications (Chapter 4)
- * Describing change: concept of derivative (Chapter 4)

- * Rules for calculating derivatives: product, quotient, chain rules, etc. (Chapter 5)
- * Working with derivatives (Chapter 5)
- * Applications of derivatives (Chapter 6)
- * Introduction to differential equations and antiderivatives (Chapter 7)
- * Concept of definite integral (Chapter 7)
- * Area (Chapter 7)
- * Fundamental Theorem of Calculus (Chapter 7)
- * Some techniques of integration (Chapter 7)
- * Applications of definite integrals (Chapter 7)

Homework assignments:

Important note: Although homework assignments are not collected and marked for credit, they are an integral part of the course and you should work on them regularly.

- * Homework questions are included in the Coursepack
- * You are allowed to use any calculator to work on homework questions
- * Practice to write well-organized and readable solutions. In particular, you have to justify main steps in your solution: refer to definitions (do not restate them, just identify), rules and known properties. You will learn how to do this by experience (takes time!).
- * Suggested completion dates will be announced on the course web page
- * Solutions to all assignments will be posted on the course web page

Tests:

- * For test dates, consult the course web page (in fall 2016 there will be four term tests)
- * Details (e.g., material that will be covered, test locations, etc.) will be announced on the course web page about a week before a test
- * Tests are written in the evenings
- * You must bring your ID to each test
- * Standard McMaster calculator Casio fx 991 may be used during tests

Final Examination:

- * Time/day will be scheduled by the Registrar and announced on the course web page as soon as the information becomes available.
- * Details (e.g., material that will be covered, final examination locations, etc.) will be given in class and announced on the course web page
- * Standard McMaster calculator, Casio fx 991MS+ may be used during final exam

Course Evaluation:

Tests ... 60 %

Final Exam ... 40 %

The instructor reserves the right to change the weight of any portion of this marking scheme. For students in good academic standing, other weights might be considered. In either case, the final mark will be computed using this weighting and the new weighting(s). The highest score for a particular student will be her/his final mark. At the end of the course the grades may be adjusted but this can only increase your grade and will be done uniformly. We will use the grade equivalence chart published in the Undergraduate Calendar to convert between percentages and letter grades.

In case of difficulty/problems:

Contact your instructor (in person, or by email) as soon as possible. Failing that, talk to a student adviser in *your* faculty. They can help you with all kinds of issues and academic inquiries (such as longer or repeated absences, requests for deferral of exams, course selection, adding or dropping courses, getting in and out of various programs, and so on). If you are in Science, check [Associate Dean's Office web page](#), or go to the Associate Dean's Office in BSB-129.

Policy regarding missed work:

If you have missed work, it is your responsibility to take action. If you are absent from the university for a minor medical reason, **lasting fewer than THREE days**, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. Click [here](#)

(or on IMPORTANT TO KNOW (MSAF POLICY link on the left) to see how missed work is treated in 1LS3. Please note that the MSAF **may not be used for term work worth 25% or more**, nor can it be used for the final examination. Please note! Once a final examination is written, the final grade cannot be adjusted to take into account any special situation.

Academic dishonesty:

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity/> The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Your marks:

At the end of the term, all grades in the course will be posted (by student number). It is your responsibility to check for errors before the day of the final exam, and to report any discrepancies to your instructor or to your TA. No error will be corrected unless reported by this time.