

# MATHS 100 - Differential Calculus with Applications to Physical Sciences and Engineering

## MATHS 180 - Differential Calculus with Physical Applications

Session 2016W Term 1, September - December 2016

- This is the common outline for all sections of MATHS100 and MATHS180 **except** the Vantage College section.
  - The instructor in charge is Andrew Rechnitzer.
  - This document gives the common course policies and information on available resources.
  - For section-specific information, please contact your instructor.
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### Textbooks

- This year we are using only free textbooks and resources.

### Primary text

- Three UBC faculty, Joel Feldman, Andrew Rechnitzer and Elyse Yeager, have produced a textbook and problem book specifically for Mathematics 100 and 180.
- The textbook and problem book can be found [here](#).
- We recommend that you work through the representative problems in the problem book (plus more)
- In time these notes will be released under a creative commons license.

### 3 Supplementary texts

- Mooculus by Fowler and Snapp. Their site also has links to video lectures which you might find useful.
  - APEX Calculus by Hartman et al. Note that you only require Volume 1 for this course.
  - Active Calculus by Boelkins, Austin and Schlicker.
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### Other resources for getting help

- Be proactive! - help is not going to come to find you.
  - Ask your instructor after class ask questions while the material is fresh in your mind
  - Go to your instructor's office hours
    - they are there to help you
    - before the quizzes tends to be more useful than afterwards
  - Go to the **Maths Learning Centre** which is located in the Leonard S. Klinck Building (LSK) Room 300.
    - Tutors are available, at no charge, to answer questions on a drop-in basis.
    - The services starts in the second week of classes and continues until the final exam.
  - **AMS tutoring:** The UBC student society provides an assortment of tutoring services.
  - **Mathematics Department website:** There is much available under the Undergraduates tab, including recent final exams for most undergraduate mathematics courses.
  - We will also run a Piazza message board for the course. See the course webpage for more details.
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## Maths 100 vs Maths 180

- Maths100 and 180 are very similar courses.
- They follow the same syllabus at the same level.
- Homework and quizzes will be of the same standard across 100 and 180.
- All sections of Maths100 and Maths180 have the same final exam.
- The main difference is that Maths180 has a workshop component.
- More information here — including information about prerequisites.
- See here for information about Maths110.

### Assessment - Maths100

Your Maths100 grade will be computed based on the following formula:

- Final Exam 60%
- 5 quizzes worth a total of 25%
- Course-common WebWorK assignments 15%

### Prerequisites and assessment - Maths180

Your Maths180 grade will be computed based on the following formula:

- Final Exam 50%
- 5 quizzes worth a total of 25%
- Course-common WebWorK assignments 15%
- Workshops 10%

### Scaling of marks across sections of Maths100 and Maths180

- After the final exam has been marked, term marks (everything except the final exam) for each section **may** be scaled.
  - The purpose of such scaling is to ensure fairness across sections.
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### WebWork link and homework problems

- Maths100 and 180 use the WebWorK online homework system.
  - You access WeBWorK by following the links in the section listings.
  - Each week you will be assigned about 10 to 20 WeBWorK problems which will be due the following week.
  - We **strongly recommend** that you also work your way through the representative problem set in the CLP problem book that you can find here.
  - We also recommend that you work through other problems in the CLP problem book — many are taken from old exams and tests.
  - If you would like even more problems, then look at the problem set taken from the 3 supplementary texts.
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## Quizzes

- Quizzes will be held every second week in your normal lecture time and place — starting week 3.
  - Each quiz will focus on the previous 2 weeks of material, but may contain any earlier material.
  - Each quiz will be 20 minutes long and consist of
    - 2 very short answer questions
    - 2 short answer questions
    - 1 long answer questionthough this may change later in the term.
  - The quizzes will be held on the following Thursdays and Fridays:
    1. September 22 & 23
    2. October 6 & 7
    3. October 20 & 21
    4. November 3 & 4
    5. November 17 & 18
  - Note - if your class meets Thursdays then your quizzes will be on the 22, 6, 20, 3 & 17. While if your class meets Fridays then you will have quizzes on the 23, 7, 21, 4 & 18.
  - See the "Missed assessment" section below about what to do if you are unable to attend a quiz.
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## Final Exam

- The final exam will be held during the exam period - December 6 until December 21. We do not have the precise date yet.
  - It will cover the entire syllabus for the course.
  - You should not plan any travel until the date of your exams are known.
  - See "Missed assessment" section below about what to do if you are unable to attend the final exam.
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## Registration changes

- Individual Mathematics instructors do not have the authority to sign forms to change your registration (please don't ask them).
  - Instead, the Mathematics Department handles all requests for registration changes centrally.
  - See <http://www.math.ubc.ca/Ugrad/ugradRegistration.shtml> for information on how to change your maths course registration.
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## Course Policies

- **Missing quizzes:**
  - If a student misses a quiz, that student shall provide a documented excuse otherwise a mark of zero will be entered for that quiz.
  - Examples of valid excuses are an illness which has been documented by a physician and Student Health Services, or an absence to play a varsity sport (your coach will provide you with a letter).
  - A physician's note must specifically state that the student was medically unfit to write the missed exam on the date of the exam. Absence of this exact information will result in a mark of 0.
  - Your instructor should be notified **within 48 hours** of such an absence and appropriate documentation should be produced **within 7 days**. Failure to comply with these time limits will result in a mark of zero.

- It is possible that if you are ill or absent your instructor may, at their discretion, arrange for you to take a quiz in another section - if your quiz is on a Friday it may be possible to sit on a Thursday in a different section (and vice versa).
- Otherwise **there will be no make-up quizzes, and the weight of the missed quiz will be transferred to the final examination.**
- Finally - Please note that a student may NOT have 100% of their assessment based on the final examination. A student who has not completed a substantial portion of the term work normally shall not be admitted to the final examination.

- **Missing the Final Exam:**

- You will need to present your situation to your faculty's Advising Office to be considered for a deferred exam.
- See the Calendar for detailed regulations .
- Your performance in a course up to the exam is taken into consideration in granting a deferred exam status (for instance, failing badly normally means you will not be granted a deferred exam).
- For deferred exams in mathematics, students generally sit the next available exam for the course they are taking, which could be several months after the original exam was scheduled.

## **Cheating**

- UBC takes cheating incidents very seriously.
- After due investigation, students found guilty of cheating on tests and exams are usually given a final grade of 0 in the course, suspended from UBC for one year, and a notation made on their Transcript of Academic Record.
- More information.