Elementary Calculus I
(Math 1007 H, Winter 2020)

Instructor: Dr. Gang Li

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Phone: 520-2600 ext 8999 https://www.carleton.ca/culearn/

Class Schedule

Class Times:	Tuesday & Thursday	6:05pm - 7:25pm	Loeb Building C164
Tutorial Times:	Thursday	7:35pm - 8:25pm	TBA
Office Hours:	Tuesday& Thursday	10:05am - 11:05am	HP 5218
	OR by appointment		

Marking Scheme

In Tutorial Quiz	7 (count best 5 out of 7)	10% total
In Tutorial Tests	3	25% total
Online Assignments	10+1	15% total
Final Exam		50%

Textbook

University Calculus: Early Transcendentals, by J. Hass, C. Heil, P. Bogacki, M.D. Weir, and G.B. Thomas, Jr., 4th edition, Addison Wesley, 2019.

Prerequisite

Ontario Grade 12 Mathematics: Advanced Functions; or MATH 0005 and MATH 0006; or equivalent

Course Overview

Limits. Differentiation of the elementary functions, including trigonometric functions. Rules of differentiation. Applications of differentiation: max-min problems, curve sketching, approximations. Introduction to integration: definite and indefinite integrals, areas under curves, fundamental theorem of calculus.

Online Assignments

There will be weekly online assignments(using Pearson's **MyMathLab**) for this course due each Friday at 11:59 pm.

- There are no extensions in the online assignments, so be sure to manage your time.
- Each assignment will be posted on Wednesday morning, and due 9 days later.
- Each assignment is graded out of 20 marks, except for the bonus assignment which is graded out of 10 bonus marks that will be added to your assignment total.

The following is the **assignment schedule**:

Assignment Number	Posting Date	Due Date
1	Jan 6	Jan 24
2	Jan 6	Jan 31
3	Jan 6	Feb 7
4	Feb 5	Feb 14
5	Feb 12	Feb 28 (Due after Winter break)
6	Feb 26	Mar 13
8	Mar 11	Mar 20
9	Mar 18	Mar 27
10	Mar 25	Apr 3
Bonus Assignment	Mar 25	Apr 10

For more details about the assignments, please see the "Online Assignment Help" document posted in CuLearn.

MyMathLab

This course will be using Pearson's **MyMathLab** for weekly homework assignments. You will be required to purchase MyMathLab in one of three options outlined below:

- You will be required to purchase MyMathLab in one of three options outlined below:
  - ✓ Option 1: MyMathlab Access Card Only ($60).
  - ✓ Option 2: MyMathlab Access Card and eText Access ($95).
  - ✓ Option 3: MyMathLab Access Card, Loose-Leaf Textbook, and eText Access ($115).
- If you already had access to MyMathlab from the last time you took this course, you may be eligible for free access to allow you to repeat the course. Please contact Jeremy.Guimond@pearsoned.com to see if he can give you access. He will require: your Pearson account email/username, the section of your current course, and the email of your instructor (NOTE YOU CAN ONLY REQUEST THIS IF YOU HAVE REPEATED THE COURSE AND PREVIOUSLY PURCHASED MYMATHLAB)
- On Jan 13 from 19:35 – 20:25, there will be an office hour for Pearson located at HP 4325. This is a chance to make sure that you can gain access to MyMathLab and the first assignment in case there are issues getting your accessing your account.

Course Policies

- **Tutorial :** You are required to attend all tutorials.
  - ✓ There is a quiz during the first 10 minutes of each tutorial. Your Tutorial quizzes during the term will be counted as 10%.
  - ✓ Quiz questions will be taken from similar questions from the online assignment due that week, so be sure to start the assignment before the tutorial. During the remainder of the tutorial, the TA will go through examples of some of the more challenging questions that appear on the assignment.
  - ✓ It is your responsibility to pick up your quiz in the following tutorial hours.

- ✓ First day of tutorials is January 23rd, 2020.

- **In Tutorial Tests** will be **three 50-minutes, closed book** tests given during regular tutorial session on ***Thursday, Feb 6, Mar 5, Mar 26, 2020***.
  - ✓ You are expected to take all the tests. ***No make up, early, or delayed tests***.
  - ✓ Students who must miss a test must inform me prior to the test and provide supporting documentation within one business day of the test date. If you provide adequate documentation (doctor's note, etc), then the weighting of that test will be placed on the final exam, otherwise a mark of 0 will be given for the test.
  - ✓ If you maintain at least 30% on every test, the lowest test will be dropped. The average of the best 2 tests will be used to determine the test component of your final mark 25%.
  - ✓ It is your responsibility to pick up your tests in the following tutorial hours. After that, TA's and I are not responsible for missing test/quiz papers.
  - ✓ Students must bring their student card to each test, quiz and exam and place it on the desk where it is visible.

- **Checking the Test/Quiz Grades**:
  - ✓ It is your responsibility to make sure that your test/quiz marks recorded correctly by visiting **cuLearn**.
  - ✓ Deadline to make any corrections on your test/quiz marks is within one week when you receive them.

- **Final Exam** will be 3-hours, closed book exam based on whole term.
  - ✓ The questions will be similar to those seen on the tests, tutorials, and in the homework assignments.
  - ✓ It is the responsibility of each student to be available at the time of the examination. In particular, no travel plans for the examination period in ***April, 2020*** should be made until the examination schedule is published.
  - ✓ Students wishing to see their examination papers must make an appointment within three weeks of the examination to do this. This examination review is for educational purposes only and NOT for negotiation of your grade. Please remember that we do not change your grade on the basis of your needs (such as scholarships, etc).

- **Passing Conditions:** Students who fail to achieve a term mark of at least 40% will automatically receive a letter grade of F, regardless of the result of the final exam.
- **Homework:** Selected exercises, mainly from the text, will be posted on **cuLearn**. These exercises are not to be handed in and will not be graded. However, to succeed in the course it is **ABSOLUTELY ESSENTIAL** that you do the exercises on a regular basis.
- **Calculators:** **No calculators** or other such electronic aids will be permitted on any of the tests, quizzes or the final examination.
- **Course Information:** All course related materials (slides, assignments, solutions, grades, announcements) will be posted on **cuLearn**.
  - ✓ It is highly recommended that you print the slides and bring them in as we will be discussing all of the content presented in the slides.
  - ✓ It is your responsibility to keep up with information announced in class, on **cuLearn**, or sent to your Carleton e-mail account.
- **E-mail:** According to Carleton University policy under the Freedom of Information of Privacy Act (FIPPA), Please use your Carleton account ONLY for all course related email, and write your course code **MATH 1007 on the subject line**.
- **Copyright:** All course related materials (including slides, assignments, solutions, and tests) are intended for personal use only and MAY NOT be reproduced or redistributed without prior written consent of the author(s).

Tentative Schedule and Syllabus

Week	Textbook Sections	Topics
Week 1	Sec 1.1	Review of Basic Concepts. Function Notation.
Week 2	Sec 1.1-1.3	Domain and Range. Odd and Even Functions. Parent Functions and Transformations. Trigonometry.
Week 3	Sec 1.5-1.6	Inverse Trigonometric Functions. Log Laws. Piecewise Functions.
Week 4	Sec 2.1-2.2	Limit Notation& Graphical Representations. Evaluating Limit Expressions Using Limit Laws.
Week 5	Sec 2.4-2.6	Continuity and Intermediate Value Theorem. Limits Involving Squeeze Theorem. Limits Involving Infinity.
Week 6	Sec 3.1-3.4	Instantaneous Rates of Change& Average Rate of Change, Derivative Definition. Derivatives Rules using Constant Rule. Power Rule. and Sum Rule.
Week 7	Sec 3.5-3.6	Derivatives Rules using Product Rule. Quotient Rule. and Chain Rule.
Week 8	Sec 3.7-3.9, 3.11	Derivatives of Trigonometric Functions. Exponential Functions. and Inverse Functions. Implicit Differentiation. Logarithmic Differentiation. Linearization & Differentials.
Week 9	Sec 4.1-4.4	Absolute and Local Extrema & Critical Points. First Derivative Test. Concavity & Inflection Points. Second Derivative Test.
Week 10	Sec 4.5, 4.8	L'Hopitals Rule ($\frac{0}{0}$, $\frac{\infty}{\infty}$, 1^{∞}, ∞^0 and 0^0).
Week 11	Sec 5.3-5.4, 5.6	Mean Value Theorem. Antiderivatives. Definite and Indefinite Integrals. Fundamental Theorem of Calculus. Curve Sketching. Area Under Curves & Area Contained Between Curves.
Week 12	Sec 5.6 & Review	

- This schedule is subject to change depending on the progress of the course.
- Please note that certain topics may be omitted or abbreviated. The order of presentation will not always be the same as in the text.

University Policies

- **Academic Integrity:** Students are required to be familiar with Section 10 of the Academic Regulations of Carleton University.
  - ✓ All tests, assignments, quizzes, and exams are to be done independently.
  - ✓ **Academic dishonesty in any form will not be tolerated.**.
  - ✓ Students who violate the standards of academic integrity during a test/examination will receive a grade of zero for that test/examination, and will be required to meet with the Associate Dean of Science for further disciplinary action.
- **Students with disabilities** requiring academic accommodations in this course must contact a coordinator at the Paul Menton Centre for Students with Disabilities to complete the necessary Letters of Accommodation. After registering with the PMC, make an appointment to meet and discuss your needs with me in order to make the necessary arrangements as early in the term as possible. Please note the deadline for submitting completed forms to the Paul Mention Centre is ***March 13, 2020.*** For more details visit the PMC website.
- **Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website.
- **Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website.

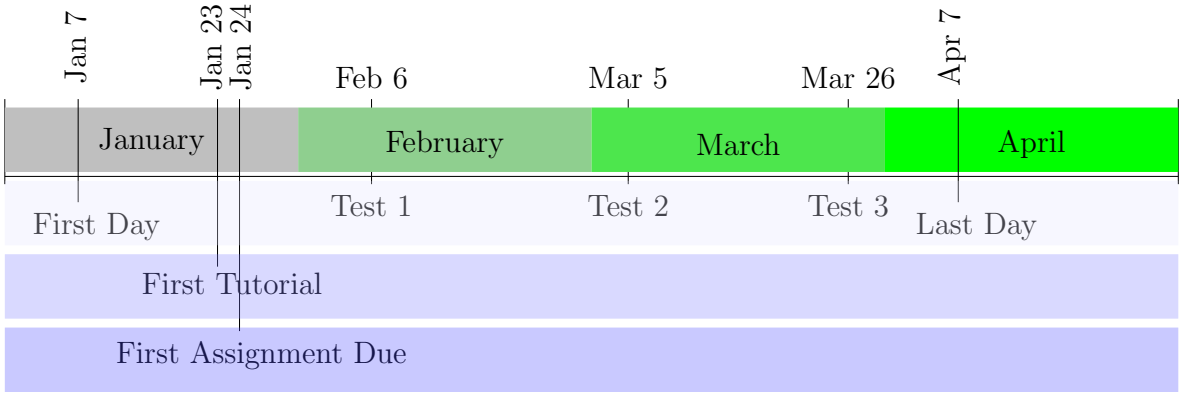
Extra Help Options

- **Math Tutorial Center:** There is a mathematics and statistics help centre located at 1160HP. For information visit the website `http://www5.carleton.ca/math/handbook-2/tutorial-centre/`
- **MS-LAP:** Online support is available for this course through MS-LAP. You should automatically be registered in MS-LAP via CuLearn. You have access to online tutorial videos free of charge. For more information and tutorials on how to access MS-LAP, please see: `https://carleton.ca/math/math-learning-assistance-program/`

Important Dates

- **Withdrawal:** The last day for academic withdrawal from the course is ***April 7, 2020***.
- **Winter Break:** February 17-21, 2020. Classes are suspended.
- For more information, please visit Dates and Deadlines.

Math 1007 H, Winter 2020 Timeline



Tutorial and TA Contact Information

Tutorial Time: Thursday 7:35 pm - 8:25 pm

Section	TA Name	Where	TA E-mail

The End

Last modified: Wednesday 16th December, 2020, 22:06