

# MATH\*1030 Syllabus Page (Winter 2020)

**Instructor:** Daniel Kraus

**Class:** M/W/Fr: 3:30pm - 4:20pm, WMEM 103

**Office:** MACN 511

**Email:** [dkraus@uoguelph.ca](mailto:dkraus@uoguelph.ca)

**Office Hours:** Monday/Wednesday/Friday 11:30am – 12:30pm

**Prerequisite:** 4U Advanced Functions

**Restrictions:** MATH\*1080, MATH\*1200.

(Not available to students registered in the BSC program).

**Credit Weight:** 0.50

**Academic Department:** Mathematics & Statistics

**Campus:** main

**Semester Offering:** Winter

**Teaching Assistants:** Announced via email

## 1 Course Notes:

Students must buy the 'fillable' lecture notes for this course at the University Bookstore (cost about \$35). (No textbook required).

## 2 What to bring to class

- The fillable lecture notes that you bought at the University Bookstore.
- Blank paper, pens/pencils.
- Scientific calculator, graphing calculator (optional, but recommended).

## 3 Class Schedule:

Posted in the Contents section of Courselink

## 4 Content Description:

This course is primarily intended for business and economics students. The course is designed to introduce and reinforce the essential mathematical skills needed to understand, analyze, and solve business-related mathematical problems. Topics covered include basic algebra; functions, including a review of exponential and logarithmic functions; sequences and series with financial applications; limits; continuity; and differential calculus including derivatives, higher order derivatives, and curve sketching.

## 5 Learning Outcomes:

- Demonstrate understanding of pre-Calculus including basic algebra.
- Demonstrate a thorough grounding of elementary functions.

- Demonstrate the ability to sketch and interpret a wide variety of graphs.
- Demonstrate understanding of elementary Differential Calculus.
- Demonstrate how to apply mathematics to some simple financial problems.

## 6 High-school algebra quiz:

Within the first 3 weeks of classes students must take a quiz covering high-school algebra. The quiz is based on a high-school algebra review, posted in the Contents section of Courselink. **Students should work through the review as soon as possible to prepare for the quiz.** Students should also work through the Chapter 2 material in the lecture notes. The completed notes for Chapter 2 is posted in the Contents section of Courselink. The quiz is comprised of 20 randomized questions and is available from the 'Quizzes' section on Courselink. **There is no time-limit to complete the quiz, and the quiz can be taken as many times as you like (within a 3 week period). Your highest grade out of all attempts will be recorded.**

## 7 Homework (available when ready):

- Homework questions are based on lectures and are posted in the Contents section of Courselink.
- Homework solutions are posted in the Contents section of Courselink (attempt the problems first!). Homework is not graded, but will be the basis for the Midterms and Final Exam, so you are strongly encouraged to do (as a minimum) the assigned questions.
- You should attempt questions as soon as the appropriate sections have been covered in class.

## 8 Tests and exam times:

Exams are based mainly on examples done in class and homework.

- **10% High-school algebra quiz. Available on Courselink from Wednesday, January 8, 8am to Wednesday, January 29, 11:30pm**
- **25% Midterm Exam 1: handed out in-class Friday, February 7, and due in-class Monday, February 10**
- **25% Midterm Exam 2: handed out in-class Friday, March 6, and due in-class Monday, March 9**
- **40% Final Exam (multiple-choice, cumulative): Wednesday, April 8, 2:30pm – 4:30pm, Rm TBA**

## 9 Teaching Assistants and Test Corrections

The teaching assistants (TAs) grade the midterms and provide 3 office hours per midterm for corrections and answering questions about grading (schedule announced via email). TAs sign the midterms they grade so you know who graded your midterms. If you have test corrections please see the TA who graded your test (**NOT YOUR PROFESSOR!**) to have your test score adjusted. If you find errors in grading and you miss the office hours

offered by the TAs then email the TA to schedule an appointment. However, as the TAs are only paid for a limited number of hours, **IF YOU MISS THE TA OFFICE HOURS THERE IS NO GUARANTEE THAT A TA WILL BE ABLE TO SEE YOU TO MAKE TEST CORRECTIONS. TEST CORRECTIONS CANNOT BE MADE AFTER THE FINAL EXAM.** It is in your best interests to check through your tests in a timely manner with the solutions provided.

#### **10 Picking up midterms**

Graded midterms will be placed in 'OUT BOXES' (clearly labelled Math\*1030) on the 3<sup>rd</sup> floor of the MacNaughton Building (south end) with the following (last) name split of drawers:

#176 - A - M

#177 - N - Z

ONCE THE FINAL EXAMINATION DATE HAS PASSED ALL MIDTERMS WILL BE SHREDDED.

#### **11 The Math & Stats Learning Center:**

The Mathematics & Statistics Department operates a drop-in learning center where you'll find a team of tutors that can help you understand and solve problems in Math\*1030. The learning center is located on the third floor of the McLaughlin Library in the Science Commons. The hours of operation are as follows:

Monday	Tuesday	Wednesday	Thursday	Friday
9:30-15:30	10:00-16:00	9:30-15:30	10:00-16:00	9:30-14:30

#### **12 Test preparation checklist:**

Posted in the Contents section of Courselink.

#### **13 Tentative outlines for the midterms and final exam:**

Posted in the Contents section of Courselink.

#### **14 Practice (past) tests:**

Posted in the Contents section of Courselink.

#### **15 Tests and solutions for this year:**

Posted in the Contents section of Courselink when ready.

#### **16 Texts recommended for background reading:**

There are many books you can consult for background reading. For example:

- Calculus with Applications (9th Edit), M. Lial, R.N. Greenwell, N.P. Ritchey. Pearson/Addison Wesley, 2008.
- Concepts of Calculus with Applications, M. Goshaw. Pearson/Addison Wesley, 2008.
- Calculus (7th Edit), J. Stewart. Brooks Cole, 2012.

- Contemporary Business Mathematics with Canadian Applications (10 Edit), S.A. Hummelbrunner, K. Halliday, K.S. Coombs. Pearson, 2015.
- etc., etc.

### 17 Attendance:

Formal attendance will not be taken. However, I *strongly* encourage you to attend class regularly. **IF YOU ARE UNABLE TO ATTEND CLASS IT IS YOUR RESPONSIBILITY TO FIND OUT WHAT YOU MISSED FROM YOUR CLASS MATES. DON'T EMAIL ME ASKING FOR NOTES.**

### 18 Email Etiquette:

Although I try to respond to all email messages, please don't ask me math questions by email (come & see me instead - don't be shy!); don't ask for class notes; don't tell me that you are going to miss a lesson; don't ask me a question that you can find out for yourself. Keep your messages to the point, polite, and clearly state your question, with name, student ID, and course details.

### 19 Exam policies:

- The two Midterm exams are take-home exams and are due **DURING** the very next class after they are handed out. **LATE EXAMS WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES. (SEE ITEM 20 BELOW).**
- The Final Exam is cumulative, i.e., it covers the whole course material.
- You may use scientific and/or graphing calculators during the Final Exam. However, if your calculator has the ability to connect to the internet, or is programmable, it is strictly forbidden for you to use these facilities during the exam. If you are found to be using these facilities during the Final Exam then you will be reported by the invigilator for unauthorized use of materials.
- The use of a cell phone during the Final Exam is strictly forbidden. If you are found to be using a cell phone during the Final Exam then you will be reported by the invigilator for unauthorized use of materials.

### 20 Academic consideration:

- There will be **NO MAKE-UP MIDTERM EXAMS OR MAKE-UP QUIZ.** If you miss a Midterm exam or Quiz due to serious illness of yourself or a death in your immediate family, or due to personal grounds, please contact me by email ASAP explaining the reason for missing the test. You do **NOT** need to get a doctor's note. If consideration is granted I will readjust the weight of assessed material, as described in the next section. **HOWEVER, ONCE THE CLASS WHEN THE EXAM IS DUE HAS ENDED NO ACCOMMODATIONS WILL BE GRANTED, EXCEPT POSSIBLY AS DESCRIBED IN ITEM 21 BELOW** (it is a general University of Guelph procedure to **NOT** grant accommodations retrospectively). For further details concerning Academic Consideration see <https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

- UNDER NO CIRCUMSTANCES WILL ANY EXAM BE RE-SCHEDULED AT A DIFFERENT TIME AND/OR DATE, with the possible exception of exams taken in SAS.
- If you miss the final exam due to catastrophic events such as serious illness of yourself or death of your immediate family, you will receive an "Incomplete" grade, then (depending on circumstance) you may be allowed to take a make-up exam to receive a letter grade. If this happens see your program counsellor, not me.

## 21 Procedure used to re-adjust the weight of assessed material:

If consideration is given to miss an exam (see item 20 above) the percentage of missed material is moved to the final. Please **DO NOT ASK FOR ALTERNATE ARRANGEMENTS AS FOR REASONS OF FAIRNESS TO OTHER STUDENTS IT WILL NOT BE GRANTED:**

- **Scenario 1:** Consideration is granted to miss one midterm  
Assessment procedure: the final exam will contribute 65% to your final grade.
- **Scenario 2:** Consideration is granted to miss both midterms  
Assessment procedure: the final exam will contribute 90% to your final grade.
- **Scenario 3:** Consideration is granted to miss the quiz (UNLIKELY)  
Assessment procedure: the final exam will contribute 50% to your final grade.
- **Scenario 4:** Consideration is granted to miss one midterm and the quiz (UNLIKELY)  
Assessment procedure: the final exam will contribute 75% to your final grade.
- **Scenario 5:** Consideration is granted to miss both midterms and the quiz (VERY UNLIKELY) Assessment procedure: the final exam will contribute 100% to your final grade.

## 22 Regulations regarding seeing your final exam:

If you wish to see your final exam you must submit your **written** request to the chair of the department by the 5th class day of the new semester, see [https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/sec\\_d0e7195.shtml](https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/sec_d0e7195.shtml).

If you are granted permission to see your final exam you will be provided with: (a) your Scantron ('bubble') sheet, (b) a copy of the exam paper, and (c) written solutions. The question booklet with your circled answers is shredded (we only refer to the question booklet if for some reason there is an error on the bubble sheet - see item 23 below).

## 23 Regulations regarding a grade-reassessment:

If you believe that an error has been made in the determination of your final grade then you must **write** to the chair of the department (by the 10th class day of the new semester) requesting a grade re-assessment. This can lead to the grade staying the same, a grade increase, or a grade decrease. Please note that this should not be used as a means of 'trying to get a few extra marks', but for situations where you have grounds for believing that mistakes have been made in the determination of your final grade. Remember also that your final exam is multiple choice and graded by a computer. Furthermore, THE

CHOICES MADE ON THE BUBBLE SHEET TAKES PRECEDENCE OVER THE CHOICES CIRCLED IN THE QUESTION BOOKLET (we only refer to your circled choices in the question booklet if for some reason there is an error on the bubble sheet).

For further information see

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

#### **24 Academic Accommodation of Religious Obligations**

If you are unable to complete a course requirement due to religious obligations, please let the instructor know within the first two weeks of class. See the academic calendar for more information:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomrelig.shtml>

#### **25 Academic Misconduct:**

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>.

#### **26 Accessibility:**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibilities Services (SAS) as soon as possible. For more information, contact SAS at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website

<http://www.uoguelph.ca/csd/>.

**27 Course Policy regarding use of electronic devices and recording of lectures:**

Electronic recording of classes is expressly forbidden without consent of the instructor. When recordings are permitted, they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor.

**28 Drop date:**

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

**29 Course Evaluation Information - see**

[https://mathstat.uoguelph.ca/sites/uoguelph.ca.mathstat/files/public/TeachevaluationformW16\\_1.pdf](https://mathstat.uoguelph.ca/sites/uoguelph.ca.mathstat/files/public/TeachevaluationformW16_1.pdf).

**30 Strike Action**

In the unlikely event of strike action by faculty, staff, or TAs that makes it difficult or impossible to administer a midterm examination, the midterm exam will be cancelled and the weight of the midterm examination will be re-distributed to the final exam. If such an event occurs this will be announced in class and an email sent to students via Courselink.

**31 Bad weather, or other 'acts of God'**

If the university is closed on a day when a midterm is held because of bad weather (e.g. a snow day) then the midterm will be held the next available class day. The same arrangement will hold for any other unavoidable 'acts of God' that make it difficult or impossible to administer a midterm examination (however, see item 30 above).

**32 Mental Health Services**

One in five students in Canada experiences some sort of mental health issue at some point in their academic career. If you find yourself facing a mental health crisis, or just need to talk to someone, please consider taking advantage of one of the following resources available to University of Guelph students:

- **Counselling Services (x53244)** is located at Health Services (J.T. Powell Building) and offers individual and group counselling sessions by appointment or walk-in.

- **Student Support Network** is located in Raithby House (across from the cannon and offers confidential, peer-based, drop-in support.
- **Good2Talk (1-866-925-5454)** is a free, 24/7 student hotline that provides professional counselling and referrals for mental health, addictions and well-being.
- **Here 24/7 (1-844-437-3247)** specializes in assessment, referral and appointment booking and is available 24/7 for crisis support.

You are not alone and you will not be judged for asking for help.

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