# THE UNIVERSITY OF WESTERN ONTARIO (WESTERN UNIVERSITY) LONDON CANADA DEPARTMENTS OF APPLIED MATHEMATICS AND MATHEMATICS, KING'S UNIVERSITY COLLEGE

## Calculus 1000A

September-December 2017

INSTRUCTORS: Department of Applied Mathematics: V. Miransky, K. Nguyen, B. Tudose, P. Yu

**Department of Mathematics:** A. Ashraf, T. Barron (course coordinator), C. Hall, O. Mitrea, A. O'Hara, TBA

King's: R. Valluri

**COURSE COORDINATOR:** T. Barron (Mathematics)

**TEXTBOOK etc.:** Single Variable Calculus, Early Transcendentals, 8th Ed., by James Stewart

Student Solutions Manual (RECOMMENDED)

Enhanced Webassign Access Code . (OPTIONAL)

Calculus...Fear No More by M. Lovric. (OPTIONAL)

Lecture Notes for Calculus 1000A, by R.N. Bryan, published for the Department of Mathematics (Custom Course Materials). **(OPTIONAL)** 

of Mathematics (Custom Course Materials). (OPTIONAL)

Midterm Tests and Final Exams for Calculus 1000A, by R.N. Bryan, published for the Department of Mathematics (Custom Course Materials). (OPTIONAL)

**PREREQUISITES:** Ontario Secondary School MCV4U or Mathematics 0110A/B.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

**ANTIREQUISITES:** Calculus 1500A/B or the former 1100A/B, Applied Mathematics 1413.

### **COURSE DESCRIPTION:**

Review of limits and derivatives of exponential, logarithmic and rational functions. Trigonometric functions and their inverses. The derivatives of the trig functions and their inverses. L'Hospital's rules. The definite integral. Fundamental theorem of Calculus. Simple substitution. Applications including areas of regions and volumes of solids of revolution.

4 lecture hours.

We will cover selected topics from Chapters 1-6. See the List of Practice Problems for more details.

#### WHAT IS EXPECTED OF THE STUDENT?

Students are expected to have read the appropriate sections of Chapters 1-6 and to have completed the practice problems. Additional material and exercises may be assigned.

Students that work at a consistent pace throughout the term (and do not put off asking questions until exam time), use help resources available, e.g. the Help Centre, and do self-directed exploration of topics, tend to achieve better results in university-level mathematics courses.

#### **EVALUATION OF STUDENT PERFORMANCE:**

**Midterm Examination:** (35%) Friday, October 27, 2017, 7:00 p.m. - 9:00 p.m. **Final Examination:** (50%) To be scheduled by the Registrar's Office. (3 hours). **Quizzes/Assignments:** (15%)

**NOTE:** Quizzes/assignments are section-specific. Details will be provided by your instructor. Resulting marks may be adjusted at the end of the term, to ensure uniformity among sections.

WEB PAGE ADDRESS: your instructor will provide the address for your section website. Also see

http://www-home.math.uwo.ca/~tfoth/calcf17/index.html

#### ACCOMMODATION AND ACCESSIBILITY:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible and contact your instructor immediately. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at scibmsac@uwo.ca

Academic consideration forms for the Faculty of Science are available at http://www.uwo.ca/sci/undergraduate/academic\_counselling/forms.html

For further information, please consult the university's medical illness policy at http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/accommodation\_medical.pdf.

Approval of accommodation for any course component worth 10% or more can *only* be made by the student's home faculty Dean's Office/Academic Counselling unit. Accommodation for work worth less than 10% is at the discretion of your section instructor (the decision on granting accommodation can be made by the instructor or the student may be referred by the instructor to the student's home faculty Dean's Office/Academic Counselling unit).

It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam\_schedule.html).

# **ACADEMIC POLICIES:**

The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy, http://www.uwo.ca/its/identity/activatenonstudent.html, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

The use of calculators and other electronic devices will not be permitted for the midterm test and the final examination.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: http://www.uwo.ca/univsec/pdf/academic policies/appeals/scholastic discipline undergrad.pdf.

Computer-marked, multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

#### SUPPORT SERVICES:

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

The policy on Accommodation for Students with Disabilities can be found here: www.uwo.ca/univsec/pdf/academic policies/appeals/accommodation disabilities.pdf

The policy on Accommodation for Religious Holidays can be found here: http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/accommodation\_religious.pdf

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental\_health) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.