The University of Western Ontario
Departments of Applied Mathematics and Mathematics, King's University College

Calculus 1501B - Winter 2018

Section 001: Allen O'Hara, MTuWF, 08:30–09:30 in 3M-3250
Section 002: Martin Pinsonnault, MTuWTh, 12:30–13:30 in SEB-1059

Course Coordinator: M. Pinsonnault.

Prerequisite: A minimum mark of 60% in either CALC 1000A/B or CALC 1500A/B.

Antirequisite: CALC 1301A/B, Applied Mathematics 1413.

Course Description: Students who intend to pursue a degree in Actuarial Science, Applied Mathematics, Astronomy, Mathematics, Physics, or Statistics should take this course. Techniques of integration; The Mean Value Theorem and its consequences; series, Taylor series with applications; parametric and polar curves with applications; first order linear and separable differential equations with applications. Antirequisite(s): Calculus 1301A/B, Applied Mathematics 1413. Extra Information: 4 lecture hours.

Required Textbook:

- Single Variable Calculus: Early Transcendentals, 8th edition, by J. Stewart, Brooks/Cole editors.

Optional:

- Student's Solutions Manual for Stewart's 8^{th} edition.
- Lecture Notes for Calculus Volume 2 (8th edition), by R. N. Bryan (Custom Course Materials)
- Midterm Tests and Final Exams for Calculus 1301B, by R. N. Bryan (Custom Course Materials)

Website: Information and announcements will be posted on the OWL website of each section.

Help Centers The Department of Mathematics runs Help Centers from Monday Jan. 15 to Wednesday April 11. The schedule is Mondays through Fridays from 14:30 to 18:30 in MC 106. **Warning**: The Help Centers often get overcrowded during examination times. Work regularly and don't wait until the last minute to try problems and ask questions.

What is expected of the student: Students are responsible for learning the material presented in lectures, for learning how to solve the suggested exercises, and for demonstrating that learning on exams assignments. For each hour of lecture, an average student should spend about 2 hours studying the material at home. This includes reading the relevant sections of the textbook and, above all, doing the exercises at the end of each section. Do as many of them as necessary to feel comfortable with the material. This course covers a lot of material, and is cumulative, so it will be necessary to work **regularly** throughout the term in order to do well.

Remember: You understand the material if you can answer questions about it that you have not seen before. For this, it is important to understand the concepts. Remembering all the formulas is not enough. In particular, it is expected that you learn and remember key definitions and key theorems, that you can provide examples of each concepts presented in class, and that you can write proofs of simple propositions.

Evaluation of Student Performance:

The final grade will be calculated as follows:

- 4 homeworks: $4 \times 5\% = 20\%$
- 2 midterm examinations: $2 \times 20\% = 40\%$
- Final examination: 40%

Notes:

- The **tentative dates** for the homeworks are
  - HW#0: 2018/01/08–2018/01/14
  - HW#1: 2018/01/15–2018/01/28
  - HW#2: 2018/02/12–2018/02/25
  - HW#3: 2018/03/19–2018/04/01

  Those dates are given as an indication only, and may be modified according to the course progression.
- The dates for the midterm exams are
  - Friday February 9^{th} 2018, 19h00 – 21h00.
  - Friday March 16^{th} 2018, 19h00 – 21h00.

  The location will vary depending on your section and surname. Specific details on the exam will be posted online closer to the exam date.
- The final examination will be 3 hours and will be cumulative. It will be scheduled by the Registrar's Office and will be held during the examination period.

Senate Policy on Prerequisites: Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will 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.

Medical Excuse Regulations: If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Deans Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Deans Office immediately. For further information please see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Records Release Form (located in the Deans Office) for visits to Student Health Services. The form can be found here:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Exam Conflicts See the University's policy on exam conflicts:

http://www.uwo.ca/univsec/pdf/academic_policies/exam/conflicts.pdf

Here are the first two paragraphs:

> A student who is scheduled to write more than two examinations in any 23-hour period may request alternative arrangements through the office of the dean of their faculty.
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> A student who is scheduled to write two examinations concurrently must notify the Registrar so that arrangements may be made for both examinations to be written in the Examination Conflict Room in a sequence established by the Registrar.

Please also let your instructor know about the conflict, and read the entire University policy.

Academic Offences: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

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

Health and Wellness: As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree. Students who are in emotional/mental distress should refer to Mental Health@Western http://www.uwo.ca/uwocom/mentalhealth/ for a complete list of options about how to obtain help.

Key sessional dates:

Jan. 8	Classes begin
Jan. 10	Special (makeup) Exams for December examination period
Jan. 16	Last day to add a second-term full course or second-term half course
Feb. 19	Family day
Feb. 19–23	Reading week
Feb. 28	Date by which students in a second-term half course must receive assessment for work totaling 15% of their final grade
Mar. 7	Last day to withdraw from a second-term half course without academic penalty
Apr. 11	Winter Term classes end
Apr. 12–13	Study Day
Apr. 14–30	Final examinations period

See `http://www.westerncalendar.uwo.ca/2016/pg7.html` for a complete list of sessional dates.