The University of Western Ontario
Departments of Applied Mathematics and Mathematics

Calculus 1301B -Winter 2020

Course Coordinator: Khoa Nguyen *(Applied Mathematics)*

Instructors: Khoa Nguyen *(Applied Mathematics),* Zinovi Krougly *(Applied Mathematics)*, Uzair Hussain *(Applied Mathematics)*

Lectures:

Section 001 – M Tu W F	1:30 pm – 2:30 pm in UCC 146 (Krougly)
Section 004 – M Tu W Th	8:30 am – 9:30 am in UCC 146 (Hussain)
Section 005 – M W	7:00 pm – 9:00 pm in NSC 1 (Nguyen)
Section 006 – M W Th F	8:30 am – 9:30 am in WSC 55 (Krougly)

Required Textbook:

- Single Variable Calculus: Early Transcendentals, 8th edition, by J. Stewart, Brooks/Cole editors, **with** Student's Solutions Manual for the 8th edition. **OR**

- Enhanced Web and electronic "You Book" Card

Optional:

- 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(s): Information and announcements relevant to all sections will be posted on owl at the Owl project site: **Calc 1301B AllSec FW19** Here AllSec stands for *All Sections.*
Most of you have already had this added. In owl you should click on Sites, then select **Calc 1301B AllSec FW19** and click on star to make it one of your favorites. You must check this site regularly for important announcements, as well as your Instructor's owl site and personal website if they have one.
Individual instructors may have their own websites for the section they teach, and all such websites will be linked to the above webpage. For information specific to your section, please visit the corresponding website.

Help Centers: The Department of Applied Mathematics runs Help Centers from January 13 to April 3 (Monday-Friday, 2:30 -6:30 pm in MC 106). **Note**: The Help Centers often get overcrowded during exam times. Work regularly and don't wait until the last minute to try problems and ask questions.

Prerequisite: A minimum mark of 55% in Calculus 1000A/B or 1500A/B or the former 1100A/B.

Antirequisite: CALC 1501A/B, Applied Mathematics 1413.

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 if you are dropped from a course for failing to have the necessary prerequisites.

Evaluation of Student Performance: The final grade will be calculated as follows:

- 2 Midterm examinations: 30% each
- Final examination: 40%

Notes:

- The First Midterm will be scheduled for Sat, Feb 8, 2020, 7 – 9:00 pm. 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 Second Midterm will be scheduled for Saturday March 14, 2020, 7 – 9 pm. 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.
- The exams are closed book and closed notes. No calculators or any electronic devices are allowed during the exams.

Covered Topics: This course continues from Calculus 1000A/B and 1100A/B. We will cover selected topics from Chapters 7-11 of Stewart: techniques of integration (integration by parts, partial fractions, special substitutions, etc); series, Taylor series, parametric curves, arc length, first order differential equations with applications. See the **List of Suggested Exercises** for more details.

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 test and exams. 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 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 the definitions and the statements of the theorems, and that you can provide examples of each concepts presented in class.

Objectives:
At the end of the course, a student should be able to

- integrate functions using several techniques such as integration by parts, partial fractions, inverse trig substitution, etc.
- sketch parametric or polar curves.
- compute area of a region formed by parametric or polar curves.
- determine the convergence or divergence of a given series.

- write a Taylor series or a McLaurin series of a differentiable function.
- formulate a problem in terms of a differential equation and solve it.

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 Dean's 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 Dean's 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 Dean's 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.