

# Calculus 2502A - Advanced Calculus I

## Fall 2018

- **Instructor:** Masoud Khalkhali, Professor of Mathematics, UWO  
Email: masoud@uwo.ca  
Office: MC 137  
Office hours: Monday 2:30-3:30 PM, Friday 11-12 AM, or by appointment.
- **Lectures:** MWF 1:30 - 2:20 PM in room . There are no tutorials.
- **Textbook:** James Stewart, Multivariable Calculus, 8th edition, Brooks/Cole.  
The book (as well as the student solutions manual) is available at the bookstore.
- **Teaching Assistant:** TBA
- **Help center:** Weekdays, 3:30-6:30 PM in MC 107
- **Course Outline:** **The course material corresponds roughly to Chapters 12, 13, and 14, and Sections 16.1, and 16.5 from the textbook.** Differential calculus of functions of several variables: level curves and surfaces; limits; continuity; partial derivatives; total differentials; Jacobian matrix; chain rule; implicit functions; inverse functions; curvilinear coordinates; derivatives; the Laplacian; Taylor Series; extrema; Lagrange multipliers; vector and scalar fields; divergence and curl.
- **Antirequisite(s):** Calculus 2302A/B.

- **Prerequisite(s):** A minimum mark of 60% in Calculus 1501A/B or Applied Mathematics 1413, or Calculus 1301A/B with a mark of at least 85%.

- **Pre-or Corequisite(s):** Mathematics 1600A/B

- **Important dates:**

September : First lecture.

Thanksgiving. No lecture.

**Midterm:** TBA

Fall reading week: No lecture.

Final exam: TBA

- **Grading: Your course grade will be calculated as follows.**

**Final exam:** 40%

**Midterm:** 30%

**Homework:** 30%.

**There are two exams: a midterm and a final. Dates will be posted on OWL. The final exam covers the entire semester.**

Details for each exam will be announced as the date approaches. All exams will be closed book: notes or class material are not permitted. Calculators or other electronic devices (cell phones, ipads, tablets, etc.) are not permitted.

- **Homework:** There will be 5 sets of homeworks. They will be announced by me through OWL. Late homework will not be accepted.
- **Conflict exams:** If you have a conflict with one of the exam times, please consult the Faculty of Science policy on missed course work. Based on that, if you think your situation qualifies you to take the conflict exam, please contact me as soon as possible, no later than a week before the exam in question.
- **Medical accommodations:** 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 me immediately. It is your responsibility to make alternative arrangements with me once the accommodation has been approved. In the event of a missed final exam, a “Recommendation of Special Examination” form must be obtained from the Dean’s Office. For further information, please consult the University policy on medical accommodation.

- **Missed homework:** Late homework will not be accepted. Homeworks can always be submitted in advance. For extended absences or medical emergencies, these are handled the same way as for exams. In that case, a homework grade could be dropped; there will be no make-up homework.
- **Academic integrity:** Working on homework with your peers is allowed, in fact encouraged. However, each student must write their own solutions. Handing in suspiciously similar solutions will be considered an instance of cheating. Scholastic offences are taken seriously and will not be tolerated. For more information, please consult the University policy on scholastic discipline.
- **Accessibility:** Please consult Services for Students with Disabilities (SSD) regarding accessibility services on campus. Please contact me if you require material in an alternate format or other accommodations to make this course more accessible to you.