

Course outline: MATH 3012, FALL 2019

Instructor: Dr. Razvan Anisca, RB 2049, email: ranisca@lakeheadu.ca

Office hours: Wednesday 8:30-9:30, Thursday 14:30-15:45

Class times: FA: Monday, Wednesday 10-11:30 (RB 1042)

FB: Tuesday, Thursday 13-14:30 (RB 1042)

Accepted Textbook (Not required): *Calculus: Early transcendental Functions* by Larson and Edwards, Brooks/Cole.

Also: *Calculus* or *Multivariable Calculus* by James Stewart, Brooks/Cole.

Exams: There will be two midterm exams on **October 28** and **November 25**, during the **lab hour**. The final exam will be scheduled by the registrar's office. The exams will be closed book with no calculators or other aids allowed.

Grade: Each of the midterm exams will be worth 25% of your final grade. The homework will count for 10%, and the final exam 40%. Please note that no alternate grading scheme will be used in this course.

Homework: Assignments are given as topics are covered in class. Assignments *will be collected and graded online using the free online homework system WeBWork*. Further information will be provided during the next couple of weeks.

Course content: The course will cover the topics on vectors and operations on vectors, space coordinates, lines, planes, surfaces in space, vector-valued functions and their differentiation and integration, tangent vectors and normal vectors, functions of several variables, limits, continuity, partial derivatives of functions of several variables, tangent planes and normal lines, iterated integrals, double integrals, triple integrals, volume and surface areas, Jacobians, line integrals, Green's Theorem, surface integrals, Divergence Theorem, Stokes' Theorem.

Lab Hour: (Monday 8:30-9:30 in RB 1042) No new material will be covered

in the lab. The lab will reinforce concepts through examples, as well as provide students with the opportunity to ask questions about the content given in class or assignment problems. Though the lab is not mandatory, it is beneficial to attend.

Course Policies:

(1) Late assignments will NOT be accepted. There will be NO make-up exams! If you miss the midterm for a legitimate reason which you can document (e.g. doctor's note), the weight of the midterm will be *transferred* to the final exam. **The documented proof of absence should be provided to me no later than 3 days after the exam was written.**

(2) All electronic devices (phones etc) are banned during the exams and in the case when such a device is found during the exam (**activated or not**) it would be treated as an **academic misconduct** situation.

Accommodations: Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as soon as possible. For more information please visit:

[http : //studentaccessibility.lakeheadu.ca](http://studentaccessibility.lakeheadu.ca).