SYLLABUS FOR MULTIVARIABLE CALCULUS II,
SUMMER 2019
MATH 2005 MEETS MTWR 1-4 PM, ROOM TO BE DETERMINED

COURSE INSTRUCTOR: DR. BRAKALOVA
OFFICE: JMH 417, E-MAIL: BRAKALOVA@FORDHAM.EDU
OFFICE HOURS: BEFORE OR AFTER CLASS AND BY AN APPT.


The electronic materials for the course can be purchased at these website, you need to purchase the digital platform, which includes WebAssign and an electronic copy of the textbook for $100. Any lower price may not include the entire package.


We will use webassign, the class key is yet to be determined. WebAssign also provides an access to additional helpful resources.

Please read the textbook regularly, you will gain good insight into the course material.

Prerequisites. Solid knowledge of Precalculus, Algebra, Calculus I, Calculus II, and Multivariable Calculus I.

Course Objectives and Lectures. In this course we study Multiple Integrals, Vector Calculus, Differential Forms and possibly applications to complex functions. We also focus on some important applications.

- Double and Triple Integrals and Applications, Change of Variables in Multiple Integrals.
- Vector Fields.
- Line Integrals, the Fundamental Theorem for Line Integrals.
- Green’s Theorem.
- Curl and Divergence.
- Parametric Surfaces and their area.
- Surface Integrals.
- Stokes’ theorem.
- The Divergence Theorem.
- Differential forms and Stokes’ Theorem.
- Cauchy-Riemann Equations, Contour Integrals and Cauchy’s Theorem (if time and interest allows).

Reading/Preparation. This is a four credit course. It meets for 5 weeks, 4 days a week for three hours each day. You should spend on average at least 8 hours
per week in addition to the class time. This should include reading the text, doing homework/additional problems, reviewing course notes.

**Course materials and Blackboard.** The syllabus, written homework assignments, some solutions, and other course materials and announcements will be posted on Blackboard and e-mailed. Please retrieve such information from Blackboard or from your Fordham e-mail on a regular basis. You can also use Blackboard for posting questions and having discussions about the material we are working on.

**Quizzes, Tests and Final Exam.** There will be several short quizzes throughout the session, the lowest score(s) will be dropped, and two Midterm Tests. The final exam is on the last day of class, August 6th.

**Homework.** Besides WebAssign there will be several assigned problems that will be submitted in writing. The homework counts as 30%.

**Attendance.** It is important for you and the class to be present and engaged.

**Meeting with the instructors.** You could also stop by my office, JMH 417 before or after class or make an appointment.

**Calculators.** You need to have at least a scientific calculator. A TI Graphing Calculator (TI 83 or higher) is recommended. Its use may be restricted on tests.

**Grade distribution.** 45% on tests and quizzes, 30% homework (written and on-line), and the final exam counts 25%. Percentages of at least 90, 80, 70, 60 guarantee grades of at least A-, B-, C-, D, respectively.

**College Policy on Academic Integrity.** I would also like to draw your attention to the College Policy on Academic Integrity. It explains the Colleges expectations and procedures. A university, by its nature, strives to foster and recognize originality of thought, which can be recognized only when people produce work that is their’s alone, properly acknowledging information and ideas that are obtained from the work of others. It is therefore important that students must maintain the highest standards with regard to honesty, effort, and performance.

In particular "Academic integrity is honest, thoughtful, and responsible scholarship. Fordham students are expected to maintain the highest standards with regard to honesty, effort and performance in their academic work."

**Disclaimer.** The course syllabus is a general plan. The instructor may slightly deviate from the syllabus but all such deviations will be announced.

*Best wishes for a successful Summer Session.*