Mathematical Sciences, University of Delaware
Math 529: FUNDAMENTALS OF OPTIMIZATION, Springy 2016

Section 10: MW 3:35PM - 4:50PM, Ewing 207.

Instructor: Constantin Bacuta, 517 Ewing Hall, 831-3382, E-mail: bacuta@udel.edu

Course Web Page: https://sakai.udel.edu/portal
http://www.math.udel.edu/bacuta/M529/M529s16index.html

Office hours: Mo 10:15-11:15 AM, W 12:20-1:20 PM.


Course Description: Maximization and minimization of functions of finitely many variables subject to constraints. Basic problem types and examples of applications; linear, convex, smooth, and non-smooth programming. Optimality conditions. Saddle points and dual problems. Overview of computational approaches.

Homework will be assigned and will be collected regularly. Late problem sets will not be accepted unless prior permission is granted. No homework assignments are accepted after the graded assignments have been returned. Homework will include programming assignments.

Exams: No make-up tests will be given without an official university excuse. There will be one in-class midterm exam on March 16, and a comprehensive take home final exam due May 16, 2016.

Project: One project/presentation will be assigned during the semester. The project might include programming with MATLAB.

Final grade: Midterm exam = 20%, Final exam =20%, Homework =40%, Project and Presentation=20%. A > 94%, A− ≥ 90%, B− ≥ 80%, C− ≥ 70%, D− ≥ 60%, F < 60%.

Attendance Policy: I encourage you to attend every class. Attendance and active participation in class will be taken into consideration. College attendance policy as outlined in the Undergraduate Catalog “http://www.udel.edu/provost/fachb/III-1-l-attendance.html” will be followed.

Academic Integrity Statement:
All University of Delaware policies regarding ethics and honorable behavior apply to this course. Cheating receives a failing grade.
Accessibility for Students with Disabilities:
If you are a student with a disability and wish to request accommodations, please contact
1) Office of Disabilities Support Services, 240 Academy St. Alison Hall Suite 119, or call
   (302) 831-4643, or
2) Academic Enrichment Center located at 148 South College Ave., (302) 831-2805.
Information regarding your disability will be treated in a confidential manner. Because
many accommodations require early planning, requests for accommodations should be
made as early as possible.

Material to be covered will be part of the following book chapters:

1. Chapter 1
2. Chapter 2
3. Chapter 3
4. Chapter 4
5. Chapter 12
6. Chapter 13
7. Chapter 16

Faculty Statement on Disclosures of Instances of Sexual Misconduct
If, at any time during this course, I happen to be made aware that a student may have
been the victim of sexual misconduct (including sexual harassment, sexual violence, domes-
tic/dating violence, or stalking), I am obligated by federal law to inform the university’s
Title IX Coordinator. The university needs to know information about such incidents
to, not only offer resources, but to ensure a safe campus environment. The Title IX Co-
ordinator will decide if the incident should be examined further. If such a situation is
disclosed to me in class, in a paper assignment, or in office hours, I promise to protect
your privacy—I will not disclose the incident to anyone but the Title IX Coordinator. For
more information on Sexual Misconduct policies, where to get help, and reporting infor-
mation please refer to www.udel.edu/sexualmisconduct. At UD, we provide 24 hour crisis
assistance and victim advocacy and counseling. Contact 302-831-2226, Student Health
Services, to get in touch with a sexual offense support advocate.

Note: This syllabus is subject to change.