

MATH 4900-01
SENIOR CAPSTONE
SPRING 2011

Instructor: COSTEL IONITA
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Time: W at 3:45-6:15 pm

Place: NIB 106

Office Hours: 8:00-9:00, 10:00-11:00 MTWF, 1:00-2:00 TuTh
or by appointment

Text: Cracking the GRE Mathematics
by Princeton Review

1. OBJECTIVES: All classes in mathematics at Dixie College support the general education goal of the college. Each class will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations and/or calculus techniques.
- Provide students with application problems that use a variety of methods including arithmetical, algebraic and geometric methods.
- Challenge students to make inferences from mathematical models that include formulas, graphs and tables.
- Provide students with real-life applications that use a variety of mathematical functions.

This course will partially fulfill requirements for Mathematics Endorsements Level 3 and 4 through the Utah State office of Education.

DMAIL: Important class and college information will be sent to your Dmail email account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Dmail email account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

DISABILITIES: If you are a student with a medical, psychological or a learning difference and requesting reasonable academic accommodations due to this disability, you must provide an official request of accommodation to your Professor(s) from the Disability Resource Center within the first two weeks of the beginning of classes. Students are to contact the Center on the main campus to follow through with, and receive assistance in the documentation process to determine the appropriate accommodations related to their disability. You may call (435) 652-7516 for an appointment and further information regarding the Americans with Disabilities Act (ADA) of 1990 per Section 504 of the Rehabilitation Act of 1973.

IMPORTANT DATES Go to: <http://new.dixie.edu/reg/?page=spring2011>

COURSE DESCRIPTION: This class has three components:

1. Prepare for the MFT (Major Field Test) to be taken on April 13, 2011. We will use the Princeton Review: Cracking the GRE Mathematics to practice for this test.
2. Learn to typeset beautiful mathematical papers. The professional's choice is \LaTeX . Also we will try to force Microsoft Word, as much as we can, to produce an acceptable product. \LaTeX is free. For more information go to <http://www.tug.org>.

3. You will write and present a paper of your choice (with my approval, so not that much choice) selected from American Mathematical Monthly, Mathematics Magazine, or The College Mathematics Journal.

HELP: I am available for help during office hours, and other times by appointment.

GRADES: The paper is worth 35%. The presentation is worth 35%. Taking the MFT is worth 30%. Your semester grade will be based on the following scale: **A**(90-100%), **B+** (87-89%), **B**(83-86%), **B-**(80-82%), **C+**(75-79%), **C**(70-74%), **C-**(65-69%), **D+**(60-64%), **D**(55-59%), **D-**(50-54%), **F**(0-50%).

Tentative Schedule

WEDNESDAY	ASSIGNMENT
01/12	Chapter 1 Start looking for an article!
01/19	Chapter 1 Have L ^A T _E X installed and working.
01/26	Chapter 2 Choose the article. Cannot be changed!
02/02	Chapter 2
02/09	Chapter 3
02/16	Chapter 3 First draft of the article typeset in L ^A T _E X.
02/23	Chapter 4
03/02	Chapter 5
03/09	Chapter 5
03/16	SPRING BREAK
03/23	Chapter 6 Second draft due.
03/30	Chapter 6
04/06	Practice Test for MFT
04/13	MFT EXAM tentative date
04/20	Finish the paper.
04/27	Turn in the paper.

FINAL EXAM (Presentations): Wednesday, May 4, 5:00-7:00 pm.