

SYLLABUS
CAPSTONE IN MATHEMATICS FOR SECONDARY
EDUCATION: MATH 396

SPRING 2015

Instructor's Name: David Duncan

Instructor's Email: duncan42[at]math.msu.edu

Instructor's Office: Wells Hall C-315

Office Hours: M 4-5, T 1-2. I am also available by appointment.

Class Times and Location: M, W, 2:40-4:00, in Wells Hall A-330

Course Webpage: math.msu.edu/~duncan42/396Spring15.html

Textbook: There will be no official textbook for the course. However, supplemental reading will be handed out.

Prerequisites: Students should have a basic familiarity with the main ideas of linear algebra (MTH 309/317), abstract algebra (310/418H), and analysis (320/327H). Students also need to have completed a Tier I writing requirement.

Course Description and Objectives: The primary goal of this course is to study the material in the high school math curriculum from a more advanced viewpoint. The aim is to provide a deeper understanding of this material.

A secondary goal is to study the extent to which your college training in mathematics (e.g., the various prerequisites for this course) correlates with, and can be useful for teaching math at the high school level.

Homework: I will assign fairly regular homework that will be based on the reading and class discussions. A summary of each assignment will be posted on the course webpage after it is assigned.

Writing Assignments: Given that this class serves as a Tier II writing credit, you will be asked to hand in three or four formal papers throughout the semester.

Quizzes: There will be three quizzes, each 40 minutes in length. These will serve as the midterms and will be taken during class. Here are the dates of the quizzes.

Quiz 1: Monday, February 16;

Quiz 2: Monday, March 23;

Quiz 3: Monday, April 27.

Final Exam/Project: At the present time I do not intend to have a final exam or project; however, I reserve the right to assign either a final project or a final exam.

The final decision on this will be made collaboratively. However, please note that MSU policy requires all classes to meet during Exam Week even if no exam is set.

Assessment: Throughout this class you will be assessed on the following.

- Basic math content (e.g., correctness).
- Writing (e.g., spelling, grammar, etc.).
- Clarity of explanation (e.g., clearly identifying the main point of your arguments, without anything superfluous).

Final Grades: Here is the breakdown of how your final grade will be computed:

Homework	30 %
Writing Assignments	40 %
Quiz 1	10 %
Quiz 2	10 %
Quiz 3	10 %

(If there is a final exam or project, then it will be worth 10% of the final grade, and I will scale all percentages above accordingly (i.e., each quiz will be worth 9%, and so forth).)

$$\begin{array}{lll}
 90 - 100\% = 4.0 & 75 - 82\% = 3.0 & 60 - 67\% = 2.0 \\
 83 - 89\% = 3.5 & 68 - 74\% = 2.5 & 50 - 59\% = 1.0
 \end{array}$$

If the situation warrants, I retain the right of assigning grades higher than would otherwise result from the scale above.

Cheating, plagiarism, and their cousins will not be tolerated. For more information about this and other scholarship issues, please consult the handbook or visit the Spartan Life websites at

- <http://www.vps.msu.edu/splife/reg3.htm>
- <http://www.vps.msu.edu/splife/rule32.htm>

Also, please turn your cell phones off, or put them on silent mode during class.

Finally, here are some important dates:

- 01/12/2015 (Monday): Classes Begin.
- 01/16/2015 (Friday): Online open add period for spring semester ends at 8pm.
- 01/19/2015 (Monday): Martin Luther King, Jr. Day - University open, classes canceled.
- 01/19/2015 (Monday) to 01/23/2015 (Friday): Students should go to Undergraduate office, C212 Wells Hall for Mathematics enrollment changes (e.g., late adds, drops to lower course, section changes).
- 02/06/2015 (Friday): End of 100% tuition refund
- 03/04/2015 (Wednesday): Last day to drop a course without a grade being reported.
- 03/09/2015 (Monday) to 03/13/2015 (Friday): Spring Break.
- 05/01/2015 (Friday): Last day of classes.