

SYLLABUS FOR MTH06, SECTION 2474

NIKOS APOSTOLAKIS

SYLLABUS

- **Professor:** Dr. Nikos Apostolakis
- **Class times and room:** Mo, Tu, Th, 4:00–5:50, LH 37.
- **Course page:** <http://xrl.us/neapos/teaching/sp11/Math06/06sp11.html>
- **Office & Tel.:** CP 122. (718) 289-5100, Ext. 5482
- **Office hours:** Tu, Th 2:30–3:30.
- **e-mail:** nikolaos.apostolakis@bcc.cuny.edu

Overview of the course: This course will provide some basic tools that you will need in your studies in maths and sciences. It is important that you master these tools as you will need them in your next courses.

Some resources:

- **Classes:** One purpose of attending classes is to learn faster than if you study on your own with a book. In addition, classes have the advantage of being interactive: you can ask if you need a clarification. To take full advantage of classes you need to review the previous class and look work out the exercises after the class. Otherwise classes are quickly forgotten.
- **Math Tutorial Lab:** The Math Tutorial Lab is a room where you will find permanent tutors for all maths courses. If you want to have the opportunity to ask questions as they arise while you do your homework, this is the place to go. It is located at CP 303 and is open 11–3 and 4–8 Monday to Thursday and 11–2 Friday and Saturday.
- **Meetings with the instructor:** If you have not understood something well and need help, or for any other matters concerning the course, you can also talk to the instructor. Please write an e-mail to the address above to arrange a time, or go to office hours.
- **Textbook:** The textbook for this class is: *Elementary and Intermediate Algebra: A Unified Approach, Fourth Edition*. For the trigonometry section we will use *Trigonometry Supplement* (Bronx Community College), McGraw-Hill 2008. Both of these texts are available at the College Bookstore. Additionally material will be handed in class when appropriate.
- **Calculator:** A scientific calculator (with trigonometric functions \sin , \cos , etc), is also required.

Student's responsibilities:

- To use the resources available (some are above) to attain the main goal: to learn.
- To prepare each class by studying the material in the previous class, solving the recommended exercises and reading ahead in the text (or in internet) the material that will be presented.
- To work on many exercises, as it is impossible to learn mathematics without doing so. The main purpose of the exercises is not quite to find the answer, but to learn from them. Therefore, if you work in an exercise for a long time without finding a correct answer, do not feel frustrated, instead consider how much you have learned in the process.

- To ask questions during class's or tutorials about anything that has not been understood. **EVEN IF YOU THINK THAT YOUR QUESTION IS TOO TRIVIAL, I GUARANTEE THAT MANY OTHER STUDENTS WILL BENEFIT FROM THE ANSWER.** So when in doubt do your classmates a favor and ASK!
- To be in class on time and do all the in-class exams. Attendance will be taken 5 minutes after the hour. Students arriving after this time will be marked as 'late'. The responsibility of catching up with material covered during a missed class lies entirely with the student.

Instructor's responsibilities:

- To act as facilitator of the learning process of the students, and to assist with any question that students may have about the material.
- To give tests and exams of appropriate difficulty. To grade tests and exams promptly and explain the students the meaning of their grades.

Classroom Rules:

- Cell phones, music devices and laptops are not allowed during class time.
- Talking about matters not related with math is not allowed during class time. Students must be quiet except when discussing mathematics during class time. It is strongly encouraged, however, that students participate and discuss the subject that is being studied in each class.
- In-class tests and quizzes will not be repeated. The only exception, in some situations, is if the instructor receives notice of the absence (via e-mail or telephone) before the time of the test or quiz.

Exams and homework:

- There will be two in-class tests during the term, each worth 20% of the final grade.
- In addition to the exams there will be many quizzes. The grade for quizzes and class participation is 20% of the final grade.
- The final exam will count 40% of the final grade. Additionally *in order to pass the class, it is required that you receive a passing grade in the final exam.*
- Homework will be assigned and collected each week.

PLAN OF THE CLASS AND ASSIGNMENTS

| DATE | Topic | Relevant documents | Assignment |
|---------|--------------------------------------|--------------------|--------------------------|
| Mo 1/31 | Introduction, Review Quiz | Review Quiz | Complete the Review Quiz |
| Tu 2/1 | Quadratic Equations | | |
| Th 2/3 | Pythagorean Theorem and distance | | |
| Mo 2/7 | Similar triangles, Trig. Ratios | | |
| Tu 2/8 | Review lines | | |
| Th 2/10 | Geometry of lines | | |
| Mo 2/14 | Trig. Ratios continued | | |
| Tu 2/15 | Geometric locus, distance from line | | |
| Th 2/17 | Geometric locus, continued | | |
| Mo 2/21 | College Closed, Presidents Day | | |
| Tu 2/22 | Roots and Radicals | | |
| Th 2/24 | Working with Radical expressions | | |
| Mo 2/28 | Solving a right triangle | | |
| Tu 3/1 | Solving equations with radicals | | |
| Th 3/3 | Complex numbers | | |
| Mo 3/7 | Trig. ratios and Coordinate plane | | |
| Tu 3/8 | REVIEW for the FIRST EXAM | | |
| Th 3/10 | FIRST EXAM | | |
| Mo 3/14 | The unit circle | | |
| Tu 3/15 | The circle | | |
| Th 3/17 | The ellipse | | |
| Mo 3/21 | Trig. functions on the unit circle | | |
| Tu 3/22 | The hyperbola | | |
| Th 3/24 | The parabola | | |
| Mo 3/28 | Trig functions on the unit circle | | |
| Tu 3/29 | Review of conics sections | | |
| Th 3/31 | Rational expressions | | |
| Mo 4/4 | Trigonometry and coordinates | | |
| Tu 4/5 | Operations with Rational expressions | | |
| Th 4/7 | Operations with Rational expressions | | |
| Mo 4/11 | Review Of Trigonometry | | |
| Tu 4/12 | Solving Rational equations | | |
| Th 4/14 | Review of Rational expressions | | |
| Mo 4/18 | NO CLASS. SPRING RECESS. | | |
| Tu 4/19 | NO CLASS. SPRING RECESS. | | |
| Th 4/21 | NO CLASS. SPRING RECESS. | | |
| Mo 4/24 | NO CLASS. SPRING RECESS. | | |
| Tu 4/26 | NO CLASS. SPRING RECESS. | | |
| Th 4/28 | REVIEW for the SECOND EXAM | | |
| Mo 5/2 | SECOND EXAM | | |
| Tu 5/3 | Relations and functions | | |
| Th 5/5 | Tables of values and graphs | | |
| Mo 5/9 | REVIEW | | |
| Tu 5/10 | REVIEW | | |
| Th 5/12 | REVIEW | | |
| Mo 4/16 | REVIEW | | |
| Tu 5/17 | REVIEW | | |