

# MATH 1010 MATHEMATICAL THOUGHT AND PRACTICE

**SEMESTER:** Spring 2012

**INSTRUCTOR:** Dr. David Cochener

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**OFFICE HOURS:** 10 – 12 M W F; 9:30 – 11:30 T T. Others by appointment.

**PURPOSE OF THE COURSE:** To develop skills of inquiry, abstract and logical thinking and critical analysis; to develop the ability to understand and use number and statistics; to develop ability in writing, reading, listening and speaking about mathematics; and most importantly, to learn, **enjoy**, and apply some basic concepts of elementary mathematics.

## WHAT WILL WE STUDY?

The course will consist of two modules:

Is Democracy Fair? – The Mathematics of Politics

Cracking the Code – The Mathematics of Cryptanalysis

**TEXT:** None. The materials for the two units will be made available on the web or handed out in class.

**OTHER MATERIALS:** A scientific or graphing calculator; a looseleaf 3-hole binder.

## WHAT DOES YOUR INSTRUCTOR EXPECT OF YOU?

To ask questions early in the semester if course requirements or the grading system is not clearly understood.

You are expected to do your homework, to do your best and to try really hard to do every assigned problem.

You are expected to attend every class meeting, to arrive on time, to arrive prepared and to participate constructively and actively in all class activities and discussions. You should provide your instructor a doctor's note or personal explanation for any and all absences.

You are expected to "do your share" in all group activities.

You are expected to devote at least 6 – 9 hours per week outside of class to the study of mathematics. For some students and some assignments, more time may be necessary.

You are expected to turn off and put away cell phones upon entering class. The phones are not to be taken out and turned on until you leave the room.

## WHY WILL WE WORK IN GROUPS?

Working well in a group is an important skill which is essential for many of the jobs for which our graduates apply. Many of the problems in Math 1010 lend themselves particularly well to group work. Therefore, although most testing and some homework will be individual, a significant amount of the work in the course will be done in groups. Here are some of the specific objectives of group work in this class:

To help you develop skills in working effectively as part of a team.

To enable you to employ problem solving skills at a higher cognitive level than would be possible working individually.

To enable you to benefit from the diverse backgrounds and abilities of the other people in your group to gain insight into a variety of approaches to problem solving.

To give you an opportunity to enhance your understanding of material by explaining it to others.

To give you “moral support” while you are working on problems.

## HOW WILL THE COURSE BE GRADED?

There will be two tests, two projects, in-class quizzes and a cumulative final exam. Each test will be worth 100 points, each project will be worth 75 points, the quizzes will be worth 50 points and the final exam will be worth 200 points. **A bonus of 2 points on your final average will be added if you have no unexcused absences and a bonus of 1 point will be added if you have only one unexcused absence. (Arriving late, leaving early or not participating in class is considered the same as an unexcused absence!)**

**Note: Four (4) or more unexcused absences may result in a grade of FA.**

**Every student is required to attend a group conference, to be scheduled later in the semester after permanent groups are formed.**

There are 600 total points available in the course and grades will be assigned as follows:

A – 540+ points

B – 480 – 539 points

C – 420 – 479 points

D – 360 – 419 points

F – Below 360 points

### **Note:**

Students registered for an e-section are required to attend an SLA (Supplemental Learning Assistance) Lab. The time and place for this lab appear in your APSU One-Stop schedule. These labs are part of the Tennessee Board of Regents approved learning support program. You will be given a list of lab requirements on the first day that you meet your lab.

**Failure to attend the lab or to meet the lab requirements may result in a grade of FA for the course.**

## **POLICY ABOUT MISSED CLASSES, TESTS, ETC:**

There will be no makeups on quizzes. Some quiz grades will be dropped. If you turn in an assignment late, points may be deducted. The assignment will not be accepted at all after the assignment has been graded and returned to the class. If a valid written excuse is provided for missing a test, a makeup will be given either immediately or at 8 a.m. on Thursday, April 26 (study day), at the instructor's discretion.

## **MID-TERM GRADE REPORTING**

A mid-term grade will be awarded for all students in this course. The grade awarded may not necessarily be based on 50% of the course requirements and may or may not differ from the final grade. Your mid-term grade will be posted on *AP Web*.

## **DISABILITY ISSUES**

Any student who has a condition that may affect his/her academic performance is encouraged to make an appointment with the course instructor and/or with the coordinator of disability issues (Morgan University Center, room 114, phone 221-6230) to discuss the matter.

## **MINORS ON CAMPUS**

According to APSU policy #3:032, minors (defined as those under the age of 18) are not allowed in classrooms. While I recognize that extenuating circumstances occur and make it difficult for some students to attend without bringing children with them on occasion, I must enforce University policy and thus will deny any request for a child in my classroom. You should also be aware that minors are not allowed in academic labs, computer labs, science labs, or the library. Further, children cannot be left in halls outside classrooms. Please be aware that the policy on unattended minors is for the purpose of ensuring that our classrooms are conducive to learning and for the safety and protection of minors. For additional information on minors on campus, contact the Office of Student Affairs in the Morgan University Center.

## **ACADEMIC AND CLASSROOM MISCONDUCT**

Students are expected to conduct themselves appropriately at all times. Academic and classroom misconduct will not be tolerated. Students must read the "Code of Student Conduct" in the new [Student Handbook](#) for an understanding of what will be expected of them within the academic setting.

***The material in this syllabus is subject to change in the event of extenuating circumstances.***