Principles of Mathematics, 10B
Course Syllabus Fall semester 2011

Contact information

Teacher: Mr. Or Neeman
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Course webpage: http://www.ugcs.caltech.edu/~oneeman/teaching/2011F/10B/

Aims

This course is aimed at furthering students' skills and understanding in mathematics. Emphasis will be placed on developing the habits of carefulness and self-observation in working through and discussing exercises, which will prove valuable both in mathematics and in other subjects, as well as in non-academic contexts.

Content

The topics which will be covered are:

1.Common functions: quadratic, exponential, logarithmic.
2.Trigonometry.
3.Probability.
4.Finance-related topics.
5.Set theory.

Evaluation

Your grade will be made up as follows:

Midterm exams: 40%
Quizzes: 40%
Homework: 15%
In-class work and participation: 5%

To be exempted from the semester exam, you must have either:
(a) An average of 90% or higher in each bimester, or
(b) An overall average of 92% or higher.

Homework

Homework assignments will consist in three components:

1.Regular questions to be turned in, which will account for 12% of the grade. Some will be graded, others only checked for completion, though I will not inform you in advance which are which.
2.Practice exercises, not to be turned in. I will also provide the answers to these, so that you can check whether you're doing them correctly or not. They are intended to prepare you for those questions which you do have to turn in.
3.Reinforcement assignments, which will account for 3% of your grade. These will be two

assignments each bimester, intended to provide additional practice on those particular topics and types of question in which you are weakest.

It must be kept in mind that the primary purpose of all homework is to further your skills and prepare you for the exams and quizzes, which make up a much larger portion of your grade. Therefore, the largest effect which doing the homework will have on your grade is this indirect one, so all care must be taken that the time you spend on your homework is well-spent in furthering your understanding and skills. Strategies to achieve this will be discussed in class.

Feedback

All feedback regarding the course is welcome and highly encouraged, as it can often be helpful in making improvements. You may speak to me in person, email me, or send me feedback anonymously through the link on the course webpage.

Rules and policies

1.Our guiding principle, both in class and out of it, will be respect. It is both essential to a good learning environment and of the highest value in itself. I expect you to treat me and all your classmates with the utmost respect, and I will treat you thus as well. If any issues arise, whether due to carelessness or any other reason, the first recourse will be to attempt to resolve them ourselves. If this fails or disrespectful behavior persists, students will be referred to the discipline counselor, with all the consequences that entails.
2.I will sometimes place course documents on the course webpage, including homework assignments. Please download them to your computer as they become available.
3.Late homework will not be accepted.
4.Absences: The first quiz you miss will be averaged out. Any further quizzes missed will be handled according to school regulations. Any absences during exams will be handled according to school regulations.
5.It often happens that a student who is confused by something will ask the person sitting next to them, who then clears it up for them. It's great that you can and are willing to help each other in this way, both in and out of class. However, both the question and its answer should be shared with the rest of the class. The reasons for this are: other students might have been confused by the same thing, in which case it'd be beneficial to stop and go into it before moving on; and other students would benefit from thinking about the question and seeing whether they could also figure it out. Therefore, if you have any questions please bring them to my attention right then so that we can figure them out together.