

### Applied Math Group Project

Please form a group containing a minimum of three, but no more than four students. Submit the list of group members to the instructor by Wednesday, November 2.

Your group will plan, research, and make an in-class presentation on one of the two topics listed below:

- 1) Discuss mathematical applications used in a specific major, career, or activity. The mathematical topics must be from the following material in our intermediate algebra course (8.6, 8.7, Chapter 9, 10, 11, 12, Appendix C.2, C.3, C.4)

OR

- 2) Choose one topic from the following material in our intermediate algebra course (8.6, 8.7, Chapter 9, 10, 11, 12, Appendix C.2, C.3, C.4) and discuss its real-life applications (in specific fields of study or majors, in the workplace, etc.)

Examples of previous topics: The Mathematics of Set Design, Medical Math, Math and Outer Space, Business Math, Logarithms Applied, Exponential Equations, Quadratic Equations, Sports and Math, Special Effects and Math in CSI: Miami, Math for the Landscape Designer.

#### Preparing the Presentation

You are expected to meet and prepare the group presentation outside of class, but you will also have occasional class time to meet with your group and the instructor. Your group or a designated group member must meet with the instructor (either during specified class time, class breaks, or an appointment) at least twice prior to your scheduled presentation time to approve your group topic and discuss your progress.

Your group presentation is due on Monday, November 21. Please sign up for a specific time slot for your presentation.

#### The In-Class Presentation (Monday, November 21)

Your group presentation must be between six to eight minutes in length. The group grade will be penalized for a presentation length that does not meet the minimum/maximum time requirement.

Each group member must speak for a minimum of 1 minute 30 seconds. You will be timed.

I encourage you to experiment with different audiovisual aids for your presentation. You may consider using PowerPoint presentations/slide shows, poster boards, handouts, video, etc. Please inform the instructor at least one week prior to your scheduled presentation regarding any audiovisual equipment you may need for your presentation. Warning: If you use a Mac for your presentation, you must ensure that you have the proper adapter plug to use with our campus video equipment.

*Your presentation will be videotaped for instructor use.*

At the time of your presentation, your group will submit a summary of your presentation that contains the following:

- An outline of your presentation
- A worksheet containing original exercises related to your topic (minimum of one exercise per person). A minimum of one of these exercises and its solution must be discussed during your presentation.
- A separate detailed solutions key for your exercises. These may be typed or neatly handwritten. You may not use exercises from our textbook or class worksheets.
- Also, if you use a PowerPoint presentation, please email a copy of your presentation file to [canyons.math@gmail.com](mailto:canyons.math@gmail.com) after your presentation.

#### Individual Essay (due on Monday, November 28)

Each group member will submit an individually written essay. The essay grade will be included in your overall project grade. Your essay should include a discussion of your understanding of

- 1) how the mathematical concepts we cover in Math 070 relate to useful applications in real-life
- 2) how you anticipate using the information you learned in this course in everyday life (do not only state that it is a prerequisite for another course)

In order to obtain additional content for your essay, you will be required to take notes during the student presentations. You will also submit these notes with your essay.

Your essay must meet the following requirements:

- Typed, using 12 point font, double spacing, and 1 inch margins
- Minimum of two full pages in length (not including headers/footers). Thus, your essay should continue onto a third page.
- Include a header at the top of the first page:

Your name

Math 070, Fall 2011

November 28, 2011

- **No late essays will be accepted**

### Grading

Your grade for the group project will be based on the following:

- Instructor grades for the group presentation and individual essay
- Individual student grading of group member participation

The grading sheets will be distributed and collected on the day of your presentation.

The in-class presentation and individual essay will be graded on

- mathematical accuracy
- content quality (including originality of topics/exercises—do not copy exercises from the textbook and class worksheets or use previously used topics and examples)
- use of basic conventions of English grammar, syntax, mechanics, punctuation and spelling
- presentation style (both oral and written)
- meeting the assignment requirements and deadlines
- fair and equal distribution of responsibilities among group members

**Project Tips**

Do not procrastinate! Your lack of preparation will reveal itself during your presentation.

Choose a topic that is interesting for your group members and for your audience.

Select a topic that does not involve math topics beyond the scope of this course.

Your project grade will be penalized if you use problems or topics included on worksheets or assigned as homework. Please use original material.

Expect that at least one person in the class will not do his/her fair share of work and may even fail to show up for the presentation. Have a backup plan ready.

Each person does not need to discuss his/her own exercise during the presentation. There may not be enough time for each person to discuss the details of an entire problem.

Practice and time the presentation before you present it during class. Be aware of minimum and maximum time constraints for each group member, as well as for the entire group.

If you use PowerPoint or poster boards, please ensure that a student in the back of the room can clearly read the font.

I am fully aware of each student's time constraints and the difficulties you will encounter trying to meet as a group. If you can, plan on meeting before or after class or during our breaks. Also, consider using technology to help your group coordinate and organize information. If you need help arranging a web conference, please contact me.

**Project Deadlines:**

Wednesday, November 2: Submit the names of your group members and proposed presentation topic for approval.

Wednesday, November 9: Submit a written proposal that outlines the topic and proposed exercises your group will discuss.

Monday, November 21 Group Presentations

Wednesday, November 23 Group Presentations (if a second day is needed)

*(Revised 10/26/11)*