

Physics 113 - Fall 2006 - Poster/presentation Project

Physics touches many, many parts of your lives. I want you to think about that in a mode that isn't accompanied with the stress of analytical test-taking. And I want you to have some fun doing it.

The poster/presentation project:

The class will divide into groups. The default grouping is by assigned workshop section. The minimum group size is 6 and the maximum is 12. Workshop sections with many students can divide into two groups. Different groupings are allowed, provided the size constraints are satisfied.

Each group will agree on a topic. The topic should have something to do with the physics we are studying this semester. Ideally, the topic is something of interest to the group, but not necessarily something mentioned in the lecture, text, problems, etc.

Each group will prepare a single presentation on their chosen topic. The presentation may be a poster or video, a short skit, a demonstration, etc. It can be interactive or not, funny or not. But, it should be informative and relevant. It should not be more than 7 minutes long if it is a demo, video, or skit. Most groups choose to do posters, which are presented in a session outside of class. If your group has the vision/preference to do a class presentation/skit, that would be great too. Your grade does not hinge on your mode of presentation.

Each group will make their presentation to the class as a whole. Exactly how we organize the presentations depends on the number of groups and what each group desires to do. We will use parts of two lecture periods (Dec. 5 and 7) for the in-class presentations and will do the poster session on Saturday, December 2 in a location TBA.

The class will do the grading. Each student will evaluate each of the projects. Within each project group, members of the group will provide me with a measure of the relative contribution of each member. Assuming these evaluations are reasonable and consistent, I will translate them into a grade. In cases where the project evaluations are not reasonable or consistent, the workshop leaders and I will step in and do the evaluation.

Example topics:

You can probably think of a physics angle on most anything that interests you ... the physics of roller coasters, buoyancy in submarines or fish, the origin of tides, gravity and the birth of stars, the physics of baseball ... golf ... swimming NASCAR racing, the physics of walking, fluid mechanics in the body, the flight of helicopters or planes, human hearing, the physics of pianos ... violins ... organs ... rockets ... earthquakes ... uses of gyroscopes ... geosynchronous satellites ... sex ... friction in different settings ... planetary orbits ... mechanical models of chemical bonds.

EXAMPLE PROJECT EVALUATION SHEET

Your name _____ Your signature _____

P113 Fall 200* - project evaluation

Below you will find a list of each of the P113 projects this semester. Please evaluate each project according to the given scheme as best you can. If you are unable to evaluate one or more of the projects, for whatever reason, leave the evaluation spaces blank. Evaluate primarily for relevance, accuracy and execution. Interest (to you) and entertainment are secondary in the evaluation.

- 5 - exceptional, over and above the call of duty (these people probably need to get a life), great execution, relevant, at least somewhat interesting
- 4 - above average, well prepared and executed, somewhat interesting
- 3 - average, more or less what was requested, acceptable execution, somewhat interesting
- 2 - below average, a little weak, preparation or execution a bit shoddy or not very relevant
- 1 - "What project?" - Or - "This is really very poor.", no show or not relevant at all or very poor execution

- Group 1: Figure skating _____
- Group 2: golf _____
- Group 3: ballistics _____
- Group 4: music _____
- Group 5: kama sutra/sex _____
- Group 6: submarines _____
- Group 7: star formation _____
- Group 8: swimsuits/drag _____
- Group 9: frisbees _____
- Group 10: juggling _____
- Group 11: billiards _____
- Group 12: relativity _____
- Group 13: skate boarding _____
- Group 14: naval aviation _____
- Group 15: yo-yo _____
- Group 16: submarines _____
- Group 17: tennis _____
- Group 18: architecture _____
- Group 19: football _____
- Group 20: heart _____
- Group 21: earth's precession _____
- Group 22: potato cannon _____

EXAMPLE GROUP EVALUATION SHEET

Your name _____ Your signature _____

Your project group number _____ Your project topic _____

P113 Fall 200* - project, evaluation of individual contributions

Please list of all members of your project group (neatly) below. Beside each name, please put the number that best describes that individual's contribution to the project in your opinion. Don't forget to evaluate yourself!

- 6, excellent, really drove the concept and/or design and/or execution of the project, carried more than his/her fair share of the load
- 5, very good, consistently did what he/she agreed to do, well prepared and cooperative
- 4, satisfactory contribution, usually did what he/she was supposed to do, acceptably prepared and cooperative
- 3, ordinary contribution, below average contribution
- 2, marginal contribution, sometimes/often failed to show up or complete assigned tasks, rarely prepared
- 1, No contribution to your knowledge, "This person is in my group?"

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