

Physics of Engineering

FALL 2015

Syllabus



Professor: Dr. Julie A Rathbun AHON 129
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Office hours: T Th 2-3 pm
Check my schedule and come by anytime!



Peer Advisors: Gigja Hollyday [(949)-510-0439
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Class meetings: T Th 11:00 am – 12:20 pm AHON 117

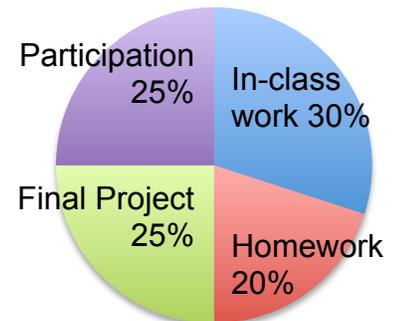
Prerequisite: Proficiency in high school math

Goals:

After completing this course, students will be able to

- Describe the physical principles that enable Disneyland rides to do what they do, including electricity, gravity, motion, energy, and optics
- Solve problems and calculate properties of Disneyland rides
- Understand what equations mean and how to represent them
- Discuss how understanding the science behind the rides affects their enjoyment of Disneyland

Grading



Final Project:

For the final project, you will choose a single ride at the Disneyland Resort and write a paper and give a short presentation about the ride. The paper and presentation must discuss the science behind the ride, explain how it works, and perform at least one calculation. Your project will be graded on the description of the ride and the science, how correct and easy to understand it is. A project proposal will be due before mid-semester and your project must be approved. If

you have an interesting or unique idea, please come talk to me.