

Phys 460 (ref. 20740)
Spring 2004, Physics of Outdoor Sports/Activities, Prof. Mick O'Shea

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Office hours: Tues., Thurs., 8:30-10:00 a.m.

Class times: Tues, Thurs. 11:30-12:20, CW 143

Textbook: Halliday, Resnick and Walker, 'Fundamentals of Physics', 6th Ed. This text will be used as a reference. Instructor notes will be used for most of the class.

This class will apply physics principles to outdoor sports/activities. These might include rock climbing, skiing, whitewater boating, parachuting, hang gliding, backpacking, weather and observational astronomy (no guarantee that all will be covered) depending on class interest. Newton's laws and the conservation of energy will be applied extensively to discuss rock climbing, skiing, and backpacking. Fluid motion will be discussed in relation to whitewater boating, parachuting and paragliding. Thermal physics and electricity will be used to discuss weather. Electricity and magnetism, and optics will be used in our discussion of observational astronomy. Time permitting, thermal physics and electricity will be used to discuss weather.

Homepage: http://www.phys.ksu.edu/~mjoshea/class/physics_460.htm

Course Goals:

1. To foster an appreciation of the scientific method.
2. To encourage critical examination of scientific models
3. To use introductory physics and modern physics ideas to understand selected outdoor activities/phenomena.

Observation sessions. I will have two optional evening observation sessions. Their times will be announced in class.

Honesty: Plagiarism and cheating are serious offenses and may be punished by failure on the exam, paper or project; failure in the course; and/or expulsion from the University. For more information refer to the "Academic Dishonesty" policy in K-State Undergraduate Catalog and the Undergraduate Honor System Policy on the Provost's web page at <http://www.ksu.edu/honor>

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Disabilities: If you have any condition such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it or which will require academic accommodations, please notify me and contact the Disabled Students Office (Holton 202), in the first two weeks of the course.

Assignment	Worth(%)
2 Exams	2 x 20
Homework	30
Final Exam	30
Total	100

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Grade Scale	Score (%)
A	90-100
B	80-89.9
C	70-79.9
D	60-69.9
F	Less than 60

Date	Class, Exam	* HW/activities(assigned during semester)
Jan.22 th	Review: Newton's laws	
27 th	"	Turn in train problem
29 th	Climbing	
Feb.3 th	"	Turn in climber problem
5 th	"	
10 th	"	
12 th	Canoe/Water sports	
17 th	"	Turn in climber on rope problem
19 th	"	
24 th	Surfing	
26 th	"	
Mar. 2 th	Ski/Snowboard	Turn in canoe problem
4 th	"	
9 th	"	
11 th	Class and review	Turn in snowboarder problem
16th	Exam 1	
18 th	"	
23 th	Spring Break	No class
25 th	Spring Break	No class
30 th	"	
April 1 st	Flying/Gliding	
6 th	"	
8 th	"	Turn in skydiver problem
13 th	Karate	
15 th	"	
20 th	Ice skating	
22 nd	"	
27 th	Class and review	Turn in ice-skating problem
29 th	Exam 2	
May 4 th	Discuss exam	
6 th	Backpacking	
11 th	"	Turn in backpacking problem
May 13 th	Class and review	
May 17th	11:50 am to 1:40pm	