OUTLINE (GEOS 418)

Basic Geophysics (GEOS – 418, MWF 10:30-11:30) 9/1/05 through 12/12/05

Professor: **Douglas Christensen**
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Office Hours **By appointment**

Grading:
Mid Term, ~October 17, 2005 (30%)
Final, December 14, 2005 10:15 am - 12:15 pm (30%)
Problem Sets (~Weekly Sets, 35%)
10% off for each class day late
Professor's Discretion (5%)
Participation and Attendance

9/2/05	Introduction
Week 1	The Earth as a planet
	The Solar System
	The Dynamic Earth
Week 2-6	Gravity and the figure of the Earth
	The Earth's size and shape
	Gravitation
	Earth's rotation
	The Earth's figure and gravity
	Gravity anomalies
	Isostasy
	Interpretation of gravity anomalies
10/17/05	Mid Term
Week 7-9	Seismology and the internal structure of the Earth
	Elasticity theory
	Seismic waves
	The seismograph
	Earthquake seismology
	Seismic wave propagation
	Internal structure of the Earth
Week 10-12	Geomagnetism and paleomagnetism
	Historical introduction
	The physics of magnetism
	Rock magnetism
	Geomagnetism
	Magnetic surveying
	Paleomagnetism
	Geomagnetic polarity
Week 13	Thermal properties and heat flow
	The Earth's heat
12/17/04	Final