

**Geology 4062**  
**EXPLORATION AND ENVIRONMENTAL GEOPHYSICS**  
**Spring 2006**

**Lecture: WF 10:30-11:30**

**Laboratory: F 11:30-2:30**

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**Environmental Applications of Geophysical Surveying Techniques**  
**Gibson and George**

**Schedule of Lectures**

January	18	Introduction	Ch. 1
	20	Gravity	Ch. 2
	25	Gravity	
	27	Gravity	
February	1	Magnetics	Ch. 3
	3	Magnetics	
	8	Seismology Principle	Ch. 7
	10	Seismology Principle	
	<b>15</b>	<b>Exam</b>	
	17	Seismic Refraction	Handout
	22	Seismic Refraction	
	24	Seismic Refraction	
March	<b>1</b>	<b>Mardi Gras</b>	
	3	Seismic Reflection	Handout
	8	Seismic Reflection	
	10	Seismic Reflection	

	15	Seismic Reflection	
	17	Electrical Resistivity	Ch. 4
	22	Electrical Resistivity	
	24	Electrical Resistivity	
	29	<b>EXAM</b>	
	31	Spontaneous Potential	
April	5	Induced Polarization	
	7	Well Logs	Ch. 8
	<b>12</b>	<b>Spring Break/AAPG</b>	
	<b>14</b>	<b>Spring Break</b>	
	19	Well Logs	
	21	Electromagnetic Principles	Ch. 5
	26	Electromagnetic Methods	
	28	Electromagnetic Methods	
May	3	Ground Penetrating Radar	Ch. 6
	5	Ground Penetrating Radar	
	<b>9</b>	<b>Exam (10 to 12)</b>	

## Schedule of Laboratories

January	20	No Laboratory
	27	Gravity Acquisition
February	3	Gravity/Magnetics Interpretation
	10	Geophones/Seismograph
	17	Refraction Acquisition
	24	Landmark Tutorial/Refraction Interpretation
March	3	Reflection Acquisition
	10	Reflection Processing
	17	Reflection Interpretation
	24	Resistivity Survey
	31	Resistivity Interpretation
April	7	Baker Hughes Well Logs
	<b>14</b>	<b>Spring Break</b>
	21	GPR Acquisition
	28	GPR Interpretation
May	5	Dominion Guest Speaker

## Grading

**Problem sets/laboratory exercises (40%) and Exams (60%)**

**Final Exam is NOT comprehensive.**

**You may bring 3 pages of handwritten notes to each exam.**