## Syllabus
### Geology 453, Fall 2002

<table>
<thead>
<tr>
<th>Topic</th>
<th>Lab</th>
<th>Reading</th>
</tr>
</thead>
</table>
| Week 1) Introduction  
1D wave equation | Unix Intro | Ch 1 |
| W2-3) Math review- Calculus  
Stress, Strain | Coulomb Stress | Ch 2 |
| W4) Seismic Wave Equation and Solutions | Finite Difference Wave Propagation Simulation | Ch 2, 3 |
| W5) Ray Theory  
Travel Times | Ray Tracing | Ch 4 |
| W6) Ray Theory Cont.-  
Amplitude and Phase | Intro To SAC | Ch 6 |
| W7) Surface Waves | East Pacific Rise | Ch 8 |
| W8) Source Theory  
Earthquake Magnitude | Global Data Sources | Ch 9 |
| W9-10) Class Project  
Data Gathering  
FK Synthetics  
Waveform Modelling  
Synthetic Seismograms | | |