

**Ge 108      Application of Physics to the Earth Sciences      Fall 2000**

Meets: TBD

Webpage: [www.gps.caltech.edu/~mbrown/classes/ge108](http://www.gps.caltech.edu/~mbrown/classes/ge108)

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| Prof: | Mike Brown<br>158 S. Mudd<br>x8423 | Admin Assnt:: | Irma Betters<br>150 S. Mudd<br>x6563 |
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| TA: | Ben Lane<br>154 S. Mudd<br>x6960 |
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Rough syllabus:

- Week 1: Half-lives. Hydrostatic equilibrium.
- Week 2: Energy and heat flow. Solution of the diffusion equation. Thermal waves. (rescheduled lecture)
- Week 3: Radiation.
- Week 4: Applications of radiation. Numerical techniques. (rescheduled lecture)
- Week 5: Gravitational force and potentials. Midterm. (rescheduled week)
- Week 6: Simple harmonic oscillators. Forced oscillations.
- Week 7: Coupled oscillators. Waves. (rescheduled lecture)
- Week 8: Wave propagation. Wave applications.
- Week 9: Waves on water. Thanksgiving.
- Week 10: Stress and strain. Continuum mechanics.

Problem sets will be handed out each Wednesday and be due at the beginning of class the following Wednesday. Midterm will be due on Wednesday, 8 November. Final will be due on Wednesday, 8 December.

Grading:

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| Homeworks (8): | 50% |
| Midterm:       | 20% |
| Final:         | 30% |