### Lecture Schedule and Reading Assignments

#### Introduction
- **L1** Sep. 2  RA  Introduction - Techniques and Targets  Ch. 1, pp. 1 - 10.

#### Potential Field Methods
- **L2** Sep. 7  RA  Gravity - Theory and Measurement  Ch. 2, pp. 11 - 22.
- **L3** Sep. 9  RA  Gravity Corrections and Analysis I  Ch. 2, pp. 22 - 39.
- **L4** Sep. 14  RA  Gravity Analysis II, Gravity Applications  Ch. 2, pp. 39 - 64.
- **L5** Sep. 16  DF  Magnetics - Concepts and Rock Properties  Ch. 3, pp. 65 - 75.
- **L6** Sep. 21  DF  Magnetics - Instruments and Surveying  Ch. 3, pp. 75 - 111.
- **L7** Sep. 23  DF  Magnetics Interpretation and Applications  Ch. 3, pp. 86 - 111.

#### Electrical Methods
- **L8** Sep. 28  DF  Resistivity, Earth Properties and Basic Theory  Ch. 6, pp. 207 - 221.
- **L9** Sep. 30  DF  Resistivity Theory and Measurement  Ch. 6, pp. 218 - 228.
- **L10** Oct. 5  DF  Resistivity Interpretation and Applications  Ch. 6, pp. 228 - 252.
- **L11** Oct. 7  **QUIZ 1 - Gravity and Magnetics**

#### Applied Seismology
- **L12** Oct. 12  RA  Seismic Waves and Rays I  Ch. 4, pp. 112 - 123.
- **L13** Oct. 14  RA  Seismic Waves and Rays II  Ch. 4, pp. 123 - 133.
- **L14** Oct. 19  RA  Seismic Reflection I  Ch. 4, pp. 133 - 143.
- **L15** Oct. 21  RA  Seismic Reflection II  Ch. 4, pp. 143 - 149.
- **L16** Oct. 26  RA  Seismic Reflection III – Lab  Ch. 4, pp. 149 - 158.
- **L17** Oct. 28  RA  Seismic Reflection IV  Ch. 4, pp. 158 - 166.
- **L18** Nov. 2  RA  Seismic Refraction I – Planar interfaces  Ch. 4, pp. 158 - 166.
- **L19** Nov. 4  RA  Seismic Refraction II – Analysis  Ch. 4, pp. 166 - 175.
- **L20** Nov. 9  RA  Seismic Refraction III – Applications  Ch. 4, pp. 175 - 186.

#### Electrical and Electromagnetic Methods
- **L21** Nov. 11  DF  Induced Polarization  Ch. 6, pp. 252 - 261.
- **L22** Nov. 16  DF  Electromagnetic Theory and Classification  Ch. 7, pp. 265 - 272.
- **L23** Nov. 18  DF  Electromagnetics, Continuous Wave Methods  Ch. 7, pp. 273 - 286.
- **L24** Nov. 23  **QUIZ 2 – Resistivity and Seismic Methods**
- **L25** Nov. 25  **Thanksgiving**
- **L26** Nov. 30  DF  Electromagnetics, Time Domain Methods  Ch. 7, pp. 286 - 293.
- **L27** Dec. 2  DF  Electromagnetics, Magnetotelluric Methods  Ch. 7, pp. 296 - 302.
- **L28** Dec. 7  DF  Ground Penetrating Radar - Methods  Ch. 8, pp. 309 - 316.
- **L29** Dec. 9  DF  Ground Penetrating Radar - Applications  Ch. 8, pp. 316 - 329.

#### Borehole Methods
- **L30** Dec. 14  DF  Borehole Geophysics  Ch. 11, pp. 377 - 394.

**Dec. 17**  **FINAL EXAM – Friday at 12:25 PM – Room 140 Weeks**

8/25/04