Remote sensing science and technology are among the most rapidly developing scientific disciplines in the last two decades. Interest in the use of remote sensing technologies for earth science and applications has been growing dramatically. Remote sensing has significantly changed the style and technical content of earth science research. Tremendous amounts of opportunities are available among the government and private funding agencies and in work places by using remote sensing in environmental studies. Students in environmental sciences, natural resources management, and Earth sciences related majors need the education and training in this fast growing discipline.

This introductory course provides students with the fundamental knowledge and skills of modern remote sensing in environmental data acquisition and analysis. Traditional aerial photography, as well as, advanced satellite remote sensing will be covered. While conventional image interpretation will be emphasized, principles and applications of computer-assisted digital remote sensing data analysis will be introduced.

**Course Outline** (Class meet Tuesday and Thursday between 3:00-4:50PM)
- Introduction to remote sensing
- Introduction to aerial photography and principles of photographic interpretation
- Aerial camera systems and platforms, film and filter combinations
- Geometry of aerial photography
- Scale, area, and height measurement
- Elements, aids, techniques and methods of photographic/image interpretation
- Stereoscopy
- Acquisition of aerial photographs/mission planning
- Basics of Electromagnetic Radiation
- Introduction to modern satellite remote sensing
- Introduction to digital image processing and enhancement
- Orthophotography
- Remote sensing in environmental and natural resource applications

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