

IUPUI Bachelor of Science in Environmental Science

Environmental Remote Sensing and Spatial Analysis Concentration



2005 color infrared aerial photograph of the Kankakee River as it crosses the Indiana / Illinois border

Spatial information technologies provide important tools for measurement, analysis, and modeling of environmental systems and their dynamic interaction with human impacts. The Environmental Remote Sensing and Spatial Analysis concentration in the BSES program builds theoretical background and advanced knowledge in spatial analytical techniques using remote sensing (satellite and airborne sensors), geographic information system (GIS), and global positioning system (GPS) technologies. The concentration emphasizes integration of these technologies and their applications to problems of environmental modeling and analysis.

Environmental Remote Sensing and Spatial Analysis Concentration (18 credit hours)

Core Concentration Requirement (3cr) – choose one course:

- GEOG - G336 Introduction to Remote Sensing (3cr)
- GEOG - G338 Introduction to Geographic Information Systems (3cr)

Additional Concentration Requirement (3cr) – choose one course:

- GEOG - G337 Computer Cartography and Graphics (3cr)
- GEOL – G456 Planetary Remote Sensing (3cr)*
- INFO - I441 Programming for Geographic Information Systems (3cr)

Concentration Electives (minimum of 9cr) – choose three courses:

- GEOG - G336 Introduction to Remote Sensing (3cr)
- GEOG - G338 Introduction to Geographic Information Systems (3cr)
- GEOG-G 436 Advanced Remote Sensing: Digital Imaging Processing (3cr)
- GEOG-G 438 Advanced Geographic Information Systems (3cr)
- GEOG-G 442 Seminar in Remote Sensing (1cr)*
- GEOG-G 488 Applied Spatial Statistics (3cr)
- GEOL-G 436 Geologic Remote Sensing (3cr)*

Concentration Capstone Requirement (3cr):

- GEOG-G 439 Seminar in Geographic Information Science (3cr)

* indicates new course, pending approval for bulletin listing

For Additional Information:

Bachelor of Science in Environmental Science

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Environmental Remote Sensing Concentration

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