Engs 674: Geospatial Data Synthesis and Modeling

SCHOOL OF ENGINEERING

The analysis and synthesis of geospatial data require complex operations in a variety of data processing environments. This can effectively lead to direct scientific results, policy decisions, or to specific combination of data sets which can serve as input to spatial, process, or simulation models with explanatory and predictive capabilities. This course provides students with detailed conceptual and analytical methods, and the knowledge to support synthesis and modeling of geospatial data in the solution of scientific and policy problems. Typically, these problems require a variety of data sources, each with unique characteristics, models, formats, and error levels. Combination of the data sources is a significant difficulty and requires expertise concerning the data themselves and the methods of data integration, processing, error correction and modeling. After attaining a thorough understanding of geospatial data concepts, some of the specific tools such as spatial modeling, geo-statistics, spatial statistics, simulation, visualization, and integrated raster/vector environments, are examined. The application of these tools to specific data sets forms the concluding phase of the course and leads to application.

3 Credits

Prerequisites

- Student must be admitted to Certificate in Geographic Info Systems program.

Instruction Type(s)

- Indiv Based: Individual Based for Engs 674
- Indiv Based: Online Program for Engs 674

Subject Areas

- Engineering, Other

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.