COURSE DETAIL

GIS AND SPATIAL ANALYSIS FOR EARTH SCIENTISTS
Country United Kingdom - Scotland
Host Institution University of St Andrews
Program(s) University of St Andrews
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Geography Earth & Space Sciences
UCEAP Course Number 132
UCEAP Course Suffix
UCEAP Official Title GIS AND SPATIAL ANALYSIS FOR EARTH SCIENTISTS
UCEAP Transcript Title GIS&SPATIAL ANALYS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course covers the principles behind, and practical application of digital spatial analysis in earth sciences. This includes the analysis of primary and secondary datasets, how to access and import a variety of data types, and the fundamentals of various spatial analytical methods including spatial statistics and modeling within a GIS environment. The course also prepares students for the correct presentation of maps and datasets in the dissertation proposal and thesis. The aspects of GIS covered include understanding the input, storage, management and transformation of digital data using GIS, becoming competent with data analysis and graphical output using GIS, and learning a range of applications of GIS for solving spatial problems in earth and environmental sciences. The course is taught through laboratory practical classes supported by short introductory lectures that cover general theories, methodologies and applications of GIS. The laboratory exercises are based on using ESRI ArcMap and associated products. This course provides students with a combination of hands-on experience using the software with a wide variety of datasets. The course is assessed through a portfolio of the laboratory exercises presented in a professional report-style format.

Language(s) of Instruction
English

Host Institution Course Number
ES3003

Host Institution Course Title
GIS AND SPATIAL ANALYSIS FOR EARTH SCIENTISTS

Host Institution Course Details

Host Institution Campus
St Andrews

Host Institution Faculty

Host Institution Degree

Host Institution Department
Earth & Environmental Sciences

Course Last Reviewed

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