Module Specification

Introduction to Applied Geographical Information Systems (GIS)

Version: 2024-25, v2.0, 19 Apr 2024

Contents

Part 1: Information

Module title: Introduction to Applied Geographical Information Systems (GIS)

Module code: UBGMU4-15-M

Level: Level 7

For implementation from: 2024-25

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

Partner institutions: None

Field: Geography and Environmental Management

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: The purpose of this module is to introduce students to fundamental concepts related to GIS and its application, and develop the a range of practical skills that could be applied in their MSc Project.

Outline syllabus: The history of GIS

GIS and Society

Case studies in applied GIS

Introduction to spatial data formats

Introduction to ArcGIS

Data sources available to students

Part 3: Teaching and learning methods

Teaching and learning methods: Directed learning (lectures, seminars): 12 hours

Directed independent learning: 12 hours

Supported practical sessions: 24 hours

Independent practical application: 48 hours

Collaborative research: 12 hours

Independent research: 30 hours

Assessment: 12 hours

This module is designed to provide an introduction to GIS principles, an opportunity to develop a range of practical skills. It is tailored for students with no prior GIS expereince. Teaching and learning combines traditional lectures, and guided practical sessions. Students complete a series of practicals focussed on developing a diverse set of GIS skills. Improved confidence in the use GIS will serve as a

foundation from which to pursue the independent development and extension of these skills.

Scheduled learning includes lectures and practical classes.

Independent learning includes hours engaged with additional reading, case study preparation, directed learning and practical completion.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Implement, present, and interpret a vector overlay analytical process

MO2 Implement, present, and interpret a raster analytical process

MO3 Implement, present, and interpret a spatial modelling analytical process

MO4 Implement, present, and interpret a network analysis process

MO5 Implement, present, and interpret a spatial statistics analytical process

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 120 hours

Face-to-face learning = 30 hours

Total = 150

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://rl.talis.com/3/uwe/lists/7D5C9D25-E7DE-DB2E-EFC0-37F28094A2BF.html?lang=en

Part 4: Assessment

Assessment strategy: The assessment strategy on this module is informed by a compassionate pedagogic approach, and is deliberately designed to avoid high-stakes single submissions. A cumulative and progressive series of portfolio element reduces the stress associated with assessment, by reducing both the size (in a

practical sense) and the importance (in a performance sense) of each individual element.

Portfolio (30 hours) - Both technical complexity and disciplinary knowledge expectations increase as the sequence of submissions progresses, with the final portfolio element requiring a level of student autonomy that is expected at post-graduate level.

Formative feedback is integrated with the delivery of practicals which are linked with the completion of each portfolio element. In these sessions staff provide both technical support and feedback on draft submissions.

Resit Portfolio - assessment is a 2nd opportunity to submit a complete portfolio.

Assessment tasks:

Portfolio (First Sit)
Description: Assessed portfolio of practical and theoretical elements (30 hours).
Weighting: 100 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

Portfolio (Resit)
Description: Portfolio assessing practical and theoretical elements (30 hours).
Weighting: 100 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Environmental Management [Frenchay] MSc 2024-25

Environmental Management [Frenchay] MSc 2023-24

Environmental Consultancy [Frenchay] MSc 2024-25

Environmental Consultancy [Frenchay] MSc 2024-25

Environmental Consultancy [Frenchay] MSc 2023-24