Module Specification

Introduction to Applied Geographical Information Systems (GIS)

Version: 2022-23, v2.0, 17 Jan 2022

Contents

Part 1: Information

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

Module code: UBGMU4-15-M

Level: Level 7

For implementation from: 2022-23

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Environment & Technology

Department: FET Dept of Geography & Environmental Mgmt

Partner institutions: None

Delivery locations: Frenchay Campus

Field: Geography and Environmental Management

Module type: Standard

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

fundamental practical skills that are developed and extended in the rest of the programme.

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 a solid introduction to GIS principles, an opportunity to develop a set of essential practical skills as well as an awareness of

the data resources available to students. Teaching and learning will combine taught sessions, independent research and practical sessions. Students will identify and investigate applications of GIS that align with their personal interests or professional ambitions – with a view to facilitating the development of a dissertation topic.

Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion. These sessions constitute an average time per level as indicated in the section above. Scheduled sessions may vary slightly depending on the module choices you make.

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

MO1 Evaluate and critique the impact GIS technology has had on society

MO2 Articulate the history of the development of GIS, and relate it to a chosen field of interest

MO3 Assess the impact of GIS technology on professional practice in a chosen field of interest

MO4 Identify and evaluate the GIS analytical approach for a GIS project

MO5 Define a process for implementing a GIS project in a chosen field of interest

MO6 Identify and evaluate the utility of data from a variety of sources for a GIS project

MO7 Integrate data and analytical methods in the completion of a GIS project, and critically evaluate its outcome

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://uwe.rl.talis.com/modules/ubgmu4-15-m.html

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 submitted over the course of the module 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.

Both technical complexity and disciplinary knowledge expectations will 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 assessment is a 2nd opportunity to submit a complete portfolio.

Assessment components:

Portfolio - Component A (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, MO6, MO7

Portfolio - Component A (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, MO6, MO7

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Environmental Management [Sep][FT][Frenchay][1Yrs] MSc 2022-23

Environmental Management [Frenchay] MSc 2022-23

Environmental Management [Sep][PT][Frenchay][2Yrs] MSc 2021-22

Environmental Consultancy [Frenchay] MSc 2022-23

Transport [Sep][FT][Frenchay][1yr] MSc 2022-23

Transport Planning [Sep][FT][Frenchay][1yr] MSc 2022-23

Environmental Consultancy [Sep][PT][Frenchay][2yrs] MSc 2022-23

Environmental Consultancy [Sep][FT][Frenchay][1yr] MSc 2022-23

Transport Planning [Sep][PT][Frenchay][2yrs] MSc 2021-22

Environmental Consultancy [Sep][PT][Frenchay][2yrs] MSc 2021-22

Master of Planning [Sep][SW][Frenchay][5yrs] - Not Running MPlan 2018-19