Course Code	Course Title	ECTS Credits
ENVM-350	Fundamentals of Geospatial Information	6
Department	**Semester**	**Prerequisites**
Life and Health Sciences	Spring	None
Type of Course	**Field**	**Language of Instruction**
Major Requirement	Environmental and Energy Management	English
Level of Course	**Year of Study**	**Lecturer(s)**
1st Cycle	3rd	Anastasia Priki
Mode of Delivery	**Work Placement**	**Co-requisites**
face-to-face	N/A	None

Objectives of the Course:

To enable students to:

- Develop an understanding of the principles of Geographical Information Science and how these are applied to answer geospatial queries.
- Be adequately prepared for either a GISci placement, further study or for subsequent employment

Learning Outcomes:

Upon completion of this course, students will:

a) be able to define and discuss key GISci principles and concepts Develop an appreciation of project management issues in a GISci context

b) be able to demonstrate an ability to apply GISci principles and concepts in practice to answer basic geospatial questions

c) develop subject specific ICT skills, including geospatial information display and presentation.

d) enhance their ability to work effectively as an individual or in small groups

Course Content:

This course introduces the underpinning concepts and ideas behind GISci and their application and use in answering geospatial questions. Topics covered may include basic remote sensing as

input to a GIS, the two main GISci data models, geospatial data collection and input methods including GPS concepts, digital cartographic issues such as map projections, symbology and visualisation of data, spatial data structures and GISci data models, geospatial databases, basic analysis techniques for both raster and vector data, and a review of current technological trends such as OpenGIS and internet-GIS.
Following training on how to manage GISci projects, students will be expected to undertake group and individual projects, producing reports for both.

Teaching Methods:

Lectures, Practicals, In-class exercises, In-class discussions and homework

Assessment Methods:

Assignments, mid-term exam, final exam

Required Textbooks:

Authors	Title	Publisher	Year	ISBN
Haywood, I., Cornelius, S., & Carver, S.	*An Introduction to Geographical Information Systems. (4th ed.)*	Prentice Hall	2011	
Longley P.A., Goodchild M., Maguire D.J. & Rhind D.W.	*Geographic information systems and science.*	John Wiley & Sons	2010	
Wilson J. & Fotheringham A.S.	*Handbook of geographic information science.*	Wiley-Blackwell	2007	