

GEOG3201 Environmental Monitoring and Assessment (6 credits)

Course Teachers: Prof D D Zhang (coordinator) and Dr M R Peart

Objectives

The course is to present general procedures, methods, theories and some techniques in the monitoring programmes for different environments. Students will learn basic environment assessment procedures from this course.

Course Synopsis

The course is divided into two parts. The first part deals with basic environmental monitoring methodology and techniques, which are how to obtain and analyse information on the existence and concentration of substances in the environment, either naturally occurring or from anthropogenic sources. It also examines natural hazard monitoring. The second part introduces the concept and nature of environmental assessment (EA or EIA), an exploration of best practice in EA and a description of EA procedures.

Lecture Topics

- Environmental monitoring strategies
- Air quality monitoring
- Water quality monitoring
- Hazard monitoring
- Valuing/assessing landscape and vegetation monitoring
- Introduction of environment assessment

Fieldwork

One field trip.

Assessment

Examination (two hours) 60%; coursework 40% (consists of field trip and exercises).

Learning Outcomes

Knowledge:

- Provide an introduction to procedures, methods, theories and techniques for monitoring programmes for different environments
- Introduce basic environmental assessment procedures

Skills:

- Transferable skills in the organization, management and design of a project
- Fieldwork methods for observation and measurement in environmental monitoring
- Synthesis of ideas and methods

Recommended Reading List

1. Cross, Jr. F.L. (1974) *Handbook on Environmental Monitoring*. Technomic Publication.
2. Glasson, J., Therival, R. & Chadwick, A. (1994) *Introduction to Environmental Impact Assessment*. London: UCL Press.