

GEOG3213 Ecosystem Services and Sustainable Society (6 credits)

Course Teacher: Dr Wendy Y Chen

Objectives

This course aims to provide the students with fundamental understanding of nature's ecosystem services and their importance for the development of a sustainable society.

Course Synopsis

This course aims to provide the students with fundamental understanding of nature's ecosystem services and their importance for the development of a sustainable society. Creating a sustainable society is the most crucial challenge in the 21st century. Human society is dependent on both a technological and an ecological life support systems. To build a sustainable society, it is necessary to understand natural ecosystems and the delivery of ecosystem services which are essential to the survival of human society. Attention should be given the sustainability of ecosystem services lest they may fail through ever increasing pressure of population and associated environmental degradation. This course starts with an introduction of the concept of natural ecosystems and ecosystem services. Major issues discussed include: (1) the ecological and geographic context of ecosystem services; (2) characterizing ecosystem services generated by various biomes; (3) human impacts on ecosystem services; (4) bringing ecosystem services into markets, environmental policies and land-use planning; (5) a series of case studies; and (6) the connection between ecosystem services and the development of the sustainable society.

Lecture Topics

- Ecosystems and ecosystem services
- Providing services
- Regulating services
- Supporting services
- Cultural Services
- Ecosystem services and sustainable society



Assessment

Coursework 100% (consists of two assignments).

Learning Outcomes

Knowledge:

- An understanding of natural ecosystems and ecosystem services
- Various approaches to evaluating ecosystem services
- Basic theoretical framework for assessing the role of ecosystem services in sustainable society

Skills:

- Basic skills in reading, thinking, and writing
- Basic quantitative approaches for measuring and analyzing ecosystem services
- Critical thinking on the development of sustainable society

Recommended Reading List

1. Bouma, J.A., and van Beukering, P.J.H (2015) *Ecosystem Services: From Concept to Practice*. Cambridge University Press, Cambridge, UK.
2. Working Group of the Millennium Ecosystem Assessment (2005) *Ecosystems and Human Wellbeing: Current State and Trends*. Washington, DC: Island Press.