

GEOG4007 Advanced Remote Sensing and GIS**TIMETABLE ARRANGEMENT:** Annual; Full-year**CREDITS:** 12**COURSE COORDINATOR:** Professor Shunlin LIANG, Professor Bo HUANG**ASSESSMENT:****COURSEWORK 100 %**

- Brief papers (40%)
- Discussion (20%)
- Presentation (40%)

OBJECTIVES:

1. Expose senior undergraduate students to the basic and advanced theories and skills pertinent to remote sensing and GIS
2. Facilitate students' preliminary applications of remote sensing and GIS skills for understanding various geographical phenomena

COURSE SYNOPSIS:

The fields of Remote Sensing and Geographical Information Systems (GIS) are expanding very fast. Remote sensing is a data collection technique, which offers a host of geo-spatial data that help depict geographical phenomenon on the earth. GIS is a computer-based system assisting researchers to analyse and interpret complex geo-spatial data for understanding comprehensively various geographical phenomena. This course consists of a combination of remote sensing, GIS and their exemplar applications, in order to nurture future researchers to advance knowledge in various subfields of geography.

Course Learning Outcomes (CLOs) After completing this course, students would be able to:		Alignment with Programme Learning Outcomes (PLOs)*						Course Assessment Methods
		1	2	3	4	5	6	
1	understand the key theories and methods in remote sensing and GIS	✓	✓	✓	✓		✓	Brief papers, Discussion, Presentation
2	analyse people-physical environment interactions from various geographical perspectives	✓	✓		✓	✓		Brief papers, Discussion, Presentation
3	recognise key research questions across physical geography discipline	✓		✓		✓	✓	Brief papers, Discussion, Presentation
4	familiarise with the general procedure of theoretical inquiry in the field of physical geography		✓	✓	✓			Brief papers, Discussion, Presentation

***Geography Major Programme Learning Outcomes (PLOs)**

In order to meet the demands and challenges in this dynamic and ever-changing world, the Department has designed a series of well-structured and contemporary courses to cater to the different interests of students. Its courses are designed to align with the University's educational aims which hope to nurture future generations not only with a critical and intellectual mindset, but also with a passion to contribute to society in general.

After completing the programme, Geography Major students should be able to:

PLO1 critically analyse the geographical aspects of the relationship between people and the natural environment;

PLO2 demonstrate and develop an understanding of how these relationships have changed with space and over time;

PLO3 identify, collect and utilize primary and secondary data to investigate and analyse the issues and problems facing people, places and society;

PLO4 integrate, evaluate and communicate information from a variety of geographical and other sources;

PLO5 participate in promoting social, economic and environmental sustainability at the local, regional and global scales; and

PLO6 effectively apply a range of transferable skills in academic, professional and social settings.