Subject Description Form

Subject Code	LSGI3663
Subject Title	International Study (Spatial Data Science and Smart Cities)
Credit Value	1
Level	3
Pre-requisite	LSGI2223 Geographic Information Science; and LSGI2373 Surveying; and LSGI2652 Utility Surveying and Management
Objectives	*This subject is intended to:* • Widen students' horizons through in-depth investigation and research on the industry of spatial data science and smart cities, and land surveying and geo-informatics in other cities/countries. • Enhance students' problem-solving skills on issues of Hong Kong's spatial data science and smart cities, and land surveying and geo-informatics by expanding their visions beyond local practices and conventions. • Provide an opportunity for students to initiate, organize, plan, and execute a study project and to learn to work and contribute as a team.
Intended Learning Outcomes	Upon completion of the subject bearing one academic credit, students will be able to: a) Comprehend different aspects of the spatial data science and smart cities, and land surveying and geo-informatics of the selected city/country through research, guided study and/or study tour b) Conduct detailed investigation and research on selected topics related to spatial data science and smart cities, and land surveying and geo-informatics of a foreign city/country c) Compare and contrast different aspects of spatial data science and smart cities, and land surveying and geo-informatics between Hong Kong and other cities/countries d) Analyze and appraise issues and solutions for Hong Kong to build a smart city with advanced knowledge of spatial data science, land surveying and geo-informatics in other cities/countries e) Work as a team and coordinate among team members to accomplish common project goals and present quality deliverables
Subject Synopsis/ Indicative Syllabus	Comparative study of spatial data science and smart cities, and land surveying and geo-informatics between Hong Kong and a city/country selected by students, followed by the presentation.

Teaching/Learning Methodology

Students in groups are required to conduct a comparative study of spatial data science and smart cities, and land surveying and geo-informatics of a city/country of their own choice with Hong Kong. Students are required to investigate one or more of the following aspects: the formation and structure of the industries related to spatial data science and smart cities, and land surveying and geo-informatics, the roles of our discipline in the smart city development, the advanced equipment and innovative technology in spatial data science and smart cities, and land surveying and geo-informatics, the technologies suitable for various of geomorphologies in different cities/countries, the prospects and future development of technologies in land surveying and geo-informatics, and specific topics such as hydrological surveying, utility surveying and management, remote sensing, photogrammetry etc.

The study shall be conducted as an elective study tour to the selected city/country in two consecutive semesters. The performance and the findings of the study tour will be held and assessed by the tour supervisors. Students are also required to prepare the presentation for assessment.

The subject lecturer will play a coordinator role and adopt the "minimum-intervention" policy for the study tour, as it is believed the preparation and organization for the study tour can contribute to students' learning of generic skills about team building and problem-solving.

Each tour group will have two staff from the Department serving as tour supervisors (arranged by the tour groups) to guide the tour's planning and execution, join the tour and be in charge of the assessment of the subject.

Assessment Methods in Alignment with Intended Learning Outcomes

Assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed				
		a	b	c	d	e
1. Presentation	60%	✓	✓	✓	✓	✓
2. Individual Assessment	40%			✓	✓	
Total	100%					

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

This is a project-based subject, and it is believed that a presentation followed by the presentation can ensure students have learned and enriched themselves through the study tour and present their learning gain systematically for assessment.

In addition to the group submissions (presentation), individual assessment based on the contributions of individual participants towards the whole process of the study tour project are included as part of the assessment.

Student Study Effort Required	Class contact:	
	▪ Introduction / Consultation	2 Hrs.
	▪ Presentation	2 Hrs.
	Other student study effort:	
	▪ Preparation and organization of the study	18 Hrs.
	▪ Preparation of presentation	18 Hrs.
	Total student study effort	40 Hrs.
Reading List and References	There are no standard reading materials for the subject. Students are expected to conduct in-depth research studies, and materials like research study report and statistical data from different sources are considered essential study materials. Case Studies are believed to aid and deepen learning impact.	