# The Hong Kong Polytechnic University

## Subject Description Form

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| **Subject Code** | LSGI2BN01M |
| **Subject Title** | Map Reading and Interpretation |
| **Credit Value** | 3 |
| **Level** | 2 |
| **Exclusion** | LSGI2B01 Map Reading and Interpretation<br>LSGI2BN01 Map Reading and Interpretation |
| **Objectives** | The powerful language of maps visually shows trends and patterns that are not apparent in other data presentations. Corporations, government, media, and researchers use maps and geographic information technology to understand and visualize data on, for example, natural resources, flows of trade, historical events, property management, and diseases. Students will explore what makes spatial information special, how and why maps are such a powerful tool to understand an increasingly complex world, and how modern technology is currently transforming the art and science of map-making. They will also learn how to be critical consumers of mapped information. |
| **Intended Learning Outcomes** | Upon completion of the subject, students will be able to:<br><br>(a) Read, interpret, and understand different kinds of maps or spatially represented data.<br>(b) Critically assess how spatial data are represented through maps and recognize various issues.<br>(c) Acquire skills that enable them to understand the trends or facts represented in particular types of maps (e.g., transport, population, and environmental) through active learning.<br>(d) Produce a simple digital map for a particular theme of interest.<br><br>Students are required to do an extensive reading from assigned textbooks or websites that will increase their literacy. Being able to read and interpret information from maps are essential and useful to many disciplines, everyday life, and life-long learning. |
| **Subject Synopsis/ Indicative Syllabus** | • Why is spatial special? Introduction to maps<br>• Maps in Hong Kong<br>• Map elements and types<br>• Mapping through the ages<br>• Mapping process – data collection and symbolization<br>• Map evaluation<br><br>How to read and interpret maps? Maps of global and regional trends in transport, population, and environment. |

**Teaching/Learning Methodology**

Lectures - work with sample problems and discuss practical applications. These activities are meant to build a deeper understanding of the subject matter; active participation and preparation before classes are expected from students.

Tutorials – students will get hands-on experience with the subject matter. Briefing and technical support for group projects.

**Assessment Methods in Alignment with Intended Learning Outcomes**

| Specific assessment methods/tasks | % weighting | Intended subject learning outcomes to be assessed (Please tick as appropriate) | | | |
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| | | a | b | c | d |
| 1. Essay Writing | 40 | ✓ | | | |
| 2. Assignment on map interpretation | 10 | | ✓ | ✓ | |
| 3. Group project on thematic map | 30 | | ✓ | ✓ | ✓ |
| 4. Test | 20 | ✓ | ✓ | ✓ | |
| Total | 100% | | | | |

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

The 40% essay writing enables students to have a thorough and in-depth understanding of the subject matter and be trained to express ideas critically. This is also reinforced by a test to check students' understanding of the basic concepts in mapping.

The group project enables students to work in a team and acquire the skills of producing a map digitally, from working out a meaningful theme and collecting relevant data to presenting data graphically and conveying the idea in a presentation.

**Student Study Effort Expected**

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| Class contact: | |
| Lecture | 26 Hrs. |
| Tutorial | 13 Hrs. |
| Other student study effort: | |
| Chapter (Book) Review | 30 Hrs. |
| Group Projects | 38 Hrs. |
| Total student study effort | 107 Hrs. |

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| **Reading List and References** | 1. Crampton J. W. (2010) *Mapping A Critical Introduction to Cartography and GI*. Wiley-Blackwell. (hardcopy & electronic versions available in PolyU Library)<br><br>2. Kimerling, A.J., Muehrcke, J., Buckley, A. & Muehrcke, P. (2010) *Map Use: Reading and Analysis*, 6th Edition.<br><br>3. Krygier, J. & Wood, D. (2011) *Making Maps: A Visual Guide to Map Design for GIS* (2nd Edition).<br><br>4. Lemmens M. (2011) *Geo-information Technologies, Applications and the Environment*, Volume 5, Springer Dordrecht Heidelberg London New York. (electronic version)<br><br>5. Monmonier, M. (1996) *How to Lie With Maps*, 2nd Edition.<br><br>6. Robinson, A.H., Morrison, J.L., Muehrcke, P.C., Kimerling, A.J. & Guptill, S.C. (1995) *Elements of* Cartography, 6th Edition. 198 pages |