



MODULE HANDBOOK

Surveying and Mapping Lab

Tjong Giok Pin, M.Si.

Undergraduate Study Program for Geography
Faculty of Mathematics and Natural Sciences
Universitas Indonesia

Surveying and Mapping Lab

Module designation	Surveying and Mapping Lab
Semester(s) in which the module is taught	Second (2nd) Semester
Person responsible for the module	Tjiong Giok Pin, M.Si.
Lecturer	1. Tjiong Giok Pin, M.Si. 2. Adi Wibowo, Ph.D.
Language	Bahasa Indonesia
Relation to curriculum	Compulsory
Teaching methods	Student-centered Learning and combination with Cooperative Learning
Workload (incl. contact hours, self-study hours)	1. Lectures: 50 minutes per week per semester 2. Assignment: 60 minutes per week per semester 3. Independent study: 60 minutes per week per semester 4. Minutes x weeks x semester: $170 \times 14 \times 1 = 2380$ minutes per semester 5. Midterm Examination: 100 minutes per semester 6. Final Examination: 100 minutes per semester 7. Total workload per semester: 2580 minutes / 43 hours
Credit points	1 (One)
Required and recommended pre-requisites for joining the module	1. Cartography 2. Cartography Lab
Module objectives/intended learning outcomes	After completing this course, two semester students are able to make simple purses to analyze spatial phenomena by applying the principle of survey and mapping and displaying in layout print maps based on cartographical rules using geographic information system software
Content	1. The concept of terrestrial mapping, aerial mapping, and hydrographic mapping 2. Terrestrous vs Aerial Mapping 3. Quantitative and Qualitative mapping concepts 4. Toponym concepts and their application on the mapping process 5. Digital mapping: concept and application
Examination forms	-
Study and examination requirements	1. Group & Presentation Score (20%) 2. Individual Score (50%) 3. Midterm Examination (15%) 4. Final Examination (15%)

Reading list	<p>Supriatna, (2001), Dasar-Dasar Sistem Informasi Geografis. Departemen Geografi FMIPA UI, Depok, Indonesia</p> <p>Supriatna (2009): Sistem Informasi Geografis, Analisis & Aplikasi. Departemen Geografi FMIPA UI, Depok, Indonesia</p> <p>David L. Verbyla, (2002): Practical GIS Analysis, Taylor & Francis, London, UK</p> <p>Edy Irwansya (2013),Sistem Informasi Geografis : Prinsip Dasar dan Pengembangan Aplikasi (2013), DIGIBOOKS, Yogyakarta, Indonesia</p> <p>Rustiadi, E., 2018. Perencanaan dan pengembangan wilayah. Yayasan Pustaka Obor Indonesia.</p> <p>Howe,D.R, 1992. Data Analysis for Database Design. International Institute for Aerospace & Earth Sciences ITC, Netherland</p> <p>De Mers, 2000. Fundamentals of Geographical Information Systems, John Wiley & Sons, Inc. New York.</p> <p>Laurini & Thomson, 1996. Fundamentals of Spatial Information Systems. Academic Press, London.</p> <p>Michael, B. (1996). GIS & Environmental Modelling: Progress & Research Issue. New York: GIS World Books, Fort Collins.</p> <p>G. Charles D. & W. Paul R. Elementary Surveying: An Introduction to Geomatics - 14th edition. 2015. Pearson Education.</p> <p>Tim Ilmu Ukur Tanah. Modul Ilmu Ukur Tanah. 2012. Departemen Geografi.</p> <p>Tim Dosen. Modul GPS. 2017. Departemen Geografi FMIPA UI.</p>
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