



MODULE HANDBOOK

Topographical and Bathymetry Mapping

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

Topographical and Bathymetry Mapping

Module designation	Topographical and Bathymetry Mapping
Semester(s) in which the module is taught	Sixth (6th) Semester
Person responsible for the module	Dr. Supriatna, M.T.
Lecturer	1. Dr. Supriatna, M.T. 2. Adi Wibowo, Ph.D.
Language	Bahasa Indonesia
Relation to curriculum	Elective
Teaching methods	Student-centered Learning and combination with Cooperative Learning
Workload (incl. contact hours, self-study hours)	1. Lectures: 100 minutes per week per semester 2. Assignment: 120 minutes per week per semester 3. Independent study: 120 minutes per week per semester 4. Minutes x weeks x semester: $340 \times 14 \times 1 = 4760$ minutes per semester 5. Midterm Examination: 100 minutes per semester 6. Final Examination: 100 minutes per semester 7. Total workload per semester: 4950 minutes / 82 hours 40 minutes
Credit points	2 (Two)
Required and recommended pre-requisites for joining the module	1. Surveying and Mapping 2. Geographic Information System 3. Remote Sensing
Module objectives/intended learning outcomes	Able to apply and analyze the concept of a topographic mapping project/bathymetry, field preparation, determine the coordinates, first Azimuth, field measurement, bathymetry mapping, and topographic and bathymetry depictions.
Content	1. Introduction to topographic mapping 2. Topographic mapping concept (land) 3. Measurement method (field survey, appointment limit, and counterfeit, area measurement, processing data, depiction, report) 4. Cut and fill analysis 5. Topographic mapping regional analysis 6. Concepts and Technology of Batimetry Mapping 7. Explanation of the concept of bathymetry mapping (waters) (field survey, appointment area measurement, measurement area, data processing, depiction, report) 8. Basic Waters Topography Analysis 9. Regional analysis of bathymetry mapping
Examination forms	-
Study and examination requirements	1. Group and Presentation Score (40%) 2. Individual Score (30%) 3. Mid Examination (15%) 4. Final Examination (15%) 5.

Reading list	<p>Frick, H. (1979). <i>Alat Ukur Tanah dan Penggunaannya</i>. Yogyakarta: Yayasan Kanisius, Senopati.</p> <p>Keats, D. (2001): <i>Cartographic Desain and Production</i>. London: John Wileys & Sons.</p> <p>Jupp, D.L.B. (1988). <i>Background And Extensions To Depth Of Penetration (DOP) Mapping In Shallow Coastal Waters</i>. In: <i>Proceedings Of The Symposium On Remote Sensing Of The Coastal Zone, Gold Coast, Queensland, Australia</i>, pp. IV.2.1 – IV.2.19, September 1988.</p> <p>Poerbandono dan Djunasjah. (2005). <i>Survei Hidrografi</i>. Refika Aditama, Bandung.</p> <p>Sasmita, D. K., 2008, <i>Aplikasi Multibeam Echosounder (MBES) untuk Keperluan Batimetrik</i>. Skripsi, Departemen Teknik Geodesi Fakultas Teknik Sipil dan Perencanaan Institut Teknologi Bandung, Bandung.</p> <p>Soeprapto. (2001). <i>Survei Hidrografi</i>. Gadjah Mada University Press, Yoyakarta</p>
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