MODULE HANDBOOK

Interactive Cartography and Digital Visualization

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

Module designation	Interactive Cartography and Digital Visualization
Semester(s) in which the module is taught	Sixth (6th) Semester
Person responsible for the module	Jarot Mulyo Semedi, M.Si.
Lecturer	1. Jarot Mulyo Semedi, M.Si.
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 x 14 x 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. Cartography 2. Geographic Information System
Module objectives/intended learning outcomes	After completing this course, students were able to build a web or mobile-based mapping application by paying attention to the user interface design (UI) and user experience (UX).
Content	1. History, concept, and WebGIS application 2. Basic components and WebGIS architecture 3. User interface (UI) design principle and user experience (UX) 4. Mobile GIS concept 5. Combination of geospatial data (Geospatial Data Mashup) 6. WebGIS application 7. Functions and widgets in WebGIS applications 8. Operational dash 9. Explain information with geospatial data 10. WebGIS application publication
Examination forms	-
Study and examination requirements	1. Individual Score (35%) 2. Group and Presentation Score (25%) 3. Mid Examination (20%) 4. Final Examination (20%)
Reading list	Fu, Pinde & Jiulin Sun. 2011. Web GIS: Principles and Applications. California: ESRI Press Duvander, A. 2010. Map Scripting 101: An Example-Driven Guide to Building Interactive Maps With Bing, Yahoo!, and Google Maps. San Fransisco: No Starch Press, Inc. Robson, R & Eric Freeman. 2005. Head First HTML with CSS & XHTML. O'Reilly Media, Inc. Fu, Pinde. Getting to Know Web GIS, fourth edition. 2020. ESRI Press W. Tang & J. Selwood, Conecting Our World: GIS Web Service. 2003. ESRI Press.