



MODULE HANDBOOK

Fluvial Landform Dynamics

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

Fluvial Landform Dynamics

Module designation	Fluvial Landform Dynamics
Semester(s) in which the module is taught	Fifth (5th) Semester
Person responsible for the module	Dr. rer.nat. Eko Kusratmoko, M.S.
Lecturer	1. Dr. rer.nat. Eko Kusratmoko, M.S. 2. Dra. Ratna Saraswati, M.S.
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: 150 minutes per week per semester 2. Assignment: 180 minutes per week per semester 3. Independent study: 180 minutes per week per semester 4. Minutes x weeks x semester: $510 \times 14 \times 1 = 7140$ minutes per semester 5. Midterm Examination: 100 minutes per semester 6. Final Examination: 100 minutes per semester 7. Total workload per semester: 7340 minutes / 122 hours 20 minutes
Credit points	3 (Three)
Required and recommended pre-requisites for joining the module	1. System and Process of Physical Geography
Module objectives/intended learning outcomes	The scope of the study material in this course emphasizes the discussion of the fluvial process in a river flow. The discussion will include the fluvial system of flow regimes, sediment sources, erosion processes, transportation and deposition in river systems, forms and changes in river flow. Furthermore, the influence of human activity will also be discussed on the changes in the river system. Teaching and learning activities held in the language of instruction are Indonesian.
Content	1. Explain the fluvial system material 2. Explain the sediment sources and sediment transfers on a wide scale 3. Classify river types, shapes, and changes 4. Identify and group the form of channel morphology through satellite imagery 5. Analyze spatially and temporally changes in the form of the morphology of the channel in a river flow 6. Identifying and analyzing the effect of human activity both directly and indirectly on the fluvial process in a river flow
Examination forms	-
Study and examination requirements	1. Individual Score (30%) 2. Group Score (40%) 3. Mid Examination (15%) 4. Final Examination (15%)

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Reading list	<p>Charlton, Ro (2009). Fundamentals of Fluvial Geomorphology. Routledge</p> <p>Robert, Andre (2003). River Processes. Arnold. UK</p> <p>Leopold, B. Luna; M. Gordon Wolman, J. P. Miller (1964). Fluvial Process in Geomorphology,</p> <p>Schumm, Stanley A. (2005). River Variability and Complexity. Cambridge Univ. Press</p> <p>Jurnal fluvial geomorphology</p> <p>Kondolf, G.M & Plegay, H. (2016). Tools in Fluvial Geomorpholgy. 2nd Ed. Wiley Blackwell</p>
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