



MODULE HANDBOOK

River Basin and Water Resource Dynamics

Dr. Mangapul P. Tambunan

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

River Basin and Water Resource Dynamics

Module designation	River Basin and Water Resource Dynamics
Semester(s) in which the module is taught	Fifth (5th) Semester
Person responsible for the module	Dr. Mangapul P. Tambunan
Lecturer	1. Dr. Mangapul P. Tambunan 2. Dr. Tito Latif Indra, 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: $340 \times 14 \times 1 = 4760$ 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. Land Use Dynamics
Module objectives/intended learning outcomes	Students are able to apply and analyze the concept of watershed as a hydrological system
Content	1. The concept of river flows and water resource dynamics 2. The concept of river flows as a hydrological system 3. The process and utilization of water resources 4. Quality and quantity of water balance sheets 5. Water pollution. 6. The technique of monitoring the location of water sampling in the settlement
Examination forms	-
Study and examination requirements	1. Individual Score (100%)
Reading list	Soeprapto. (2001). Survei Hidrografi. Gadjah Mada University Press, Yoyakarta. Downs, Peter W. & K. J. Gregory. (2004). River Channel Management, toward sustainable catchment hydrosystem. Arnold. London, UK. Newson, M. (1994): Land, water and development: river basin system and their sustainable management. Routledge, London.