



**HASANUDDIN
UNIVERSITY**

2023

MODULE DESCRIPTION

BACHELOR PROGRAM
AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
HASANUDDIN UNIVERSITY
2023



Engineering Hydrology

Semester 4

Module designation	<i>Engineering Hydrology</i>
Semester(s) in which the module is taught	<i>IV</i>
Person responsible for the module	<ul style="list-style-type: none"> • <i>Prof. Dr. Ir. Ahmad Munir, M.Eng.</i> • <i>Dr. Suhardi, STP., MP.</i> • <i>Dr. Ir. Mahmud, MP.</i> • <i>Samsuar, STP., MSi</i>
Language	<i>Indonesia</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>Lecture</i>
Workload (incl. contact hours, self-study hours)	<p><i>2 SKS x 1.7 = 3.4 ECTS = 91.8 hours</i></p> <ul style="list-style-type: none"> • <i>Lecture = 23.3 hours</i> • <i>Excercise = 28 hours</i> • <i>Sel study = 28 hours</i> • <i>Exam = 4 hours (MID term and final)</i> • <i>Exam preparation = 8.5 hours</i>
Credit points	<i>2 SKS = 3.4 ECTS</i>
Required and recommended prerequisites for joining the module	<i>Fluid Mechanics</i>
Module objectives/intended learning outcomes	<p><i>ILO 3: Apply knowledge of mathematics, sciences, and engineering principles in agricultural fields; (Knowledge 1)</i></p> <p><i>ILO 4: Use quantitative analysis, information technology and critical thinking in agricultural engineering profession; (Knowledge 2)</i></p> <p><i>ILO 6: Design simple equipment, components, or processes needed in agricultural engineering operations; (Skill 2)</i></p>
Content	<i>This course covers: (1) concept of Hydrological Cycle, (2) Data Processing of precipitation, interception, evaporation, surface and subsurface flow, infiltration and percolation, and groundwater, (3) Statistical hydrology and (4) Rainfall- runoff Modeling.</i>
Examination forms	<i>Writing</i>
Study and examination requirements	<i>Attendance above 80%</i>
Reading list	<p><i>Linsley Jr., RK., MA Kohler, JLH. Paulhus, 1982. Hydrology for Engineers. Third Edition. McGraw-Hill Inc., New York.</i></p> <p><i>Asdak, C., 2004. Hydrologi dan Pengelolaan Daerah Aliran Sungai. Gadjah Mada University Press, Yogyakarta.</i></p>