

# 2023 MODULE DESCRIPTION

BACHELOR PROGRAM  
AGRICULTURAL ENGINEERING  
FACULTY OF AGRICULTURE  
HASANUDDIN UNIVERSITY  
2023



## Surveying Practicum Semester 3

Module designation	<i>Surveying Practicum</i>
Semester(s) in which the module is taught	<i>III</i>
Person responsible for the module	<ul style="list-style-type: none"> <li>• <i>Muhammad Rizal, STP., M.Si</i></li> <li>• <i>Husnul Mubarak, S.TP., M.Si</i></li> </ul>
Language	<i>Indonesia</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>Practices in Laboratory</i>
Workload (incl. contact hours, self-study hours)	<p><i>(Estimated) Total workload:</i>  <math>1 \text{ SKS} \times 1.7 = 1.7 \text{ ECTS} = 45.9 \text{ hours}</math></p> <ul style="list-style-type: none"> <li>• <i>Lecture = 11.6 hours</i></li> <li>• <i>Excercise = 14 hours</i></li> <li>• <i>Sel study = 14 hours</i></li> <li>• <i>Exam = 2 hours (MID term and final)</i></li> <li>• <i>Exam preparation = 4.3 hours</i></li> </ul>
Credit points	<i>1 SKS =1.7 ECTS</i>
Required and recommended prerequisites for joining the module	<i>Measurement Tools in Surveying Elementary Mathematics</i>
Module objectives/intended learning outcomes	<p><i>ILO 3 : apply knowledge of mathematics, sciences, and engineering principles in agricultural fields;</i></p> <p><i>ILO 5 : use techniques, skills, and modern tools necessary for agricultural engineering practices;</i></p> <p><i>ILO 6 : manage and utilize agricultural resources effectively, efficiently, and sustainably;</i></p>
Content	<i>Student will be able to measure, calculate, and correct the distances (horizontal profile), and angle (polygon). They also have skill to draw contour and calculate cut and fill as well as the digital mapping in GIS and remote sensing. This course contains (1) basic concepts of surveying, (2) Measurement, Calculation, and Corrections in Distance and Angle, (3) Mensuration in Polygon (Area, Volume, and Cut &amp; Fill) (4) Digital Mapping System (SIG and remote Sensing).</i>
Examination forms	<i>Writing</i>
Study and examination requirements	<i>Attendance above 80%</i>
Reading list	<ul style="list-style-type: none"> <li>• <i>Schofield, W. &amp; M. Breach, 2007. Engineering Surveying. Sixth Edition, Butterworth-Heinemann Elsevier. Sydney.</i></li> </ul>