

## Module Handbook

Module Name:	Basic Physics I (Practical Work)
Module Level:	Bachelor
Abbreviation, if applicable:	FID106
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	Odd (1 <sup>st</sup> semester)
Module coordinator(s):	MKWU Teaching Staff
Lecturer(s):	MKWU Teaching Staff
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / <del>Elective Studies</del>
Teaching format / class hours per week during semester:	300 minutes/ week
Workload:	100 min lecture + 100 min structural assignment + 100 min self-assignment x 13 weeks; total 3900 min = 65 hours 65/25 = 2.6 ECTS
Credit point	1
Requirement	-
Learning goals/ competencies	<p><b>General competence :</b> Able to use the physic laboratory equipment and manage it, and interpret the data in a report correctly</p> <p><b>Specific competence:</b></p> <ol style="list-style-type: none"> <li>1. Able to determine the uncertainty in measurement of physical quantities and interpret the data</li> <li>2. Able to read the scale of measuring tools and determine its accuracy</li> <li>3. Able to determine the acceleration gravity of the earth</li> <li>4. Able to determine the coefficient of restitution of the collisions of two object</li> <li>5. Able to determine the density of solids in the form of beams, cylinder, and granular and liquid substance</li> <li>6. Able to determine the voltage magnitude of surface water \, alcohol and spiritus</li> <li>7. Able to determine the coefficient of viscosity the watery and viscous fluid</li> <li>8. Able to determine Young's modulus of copper wire</li> <li>9. Able to determine the spring constant</li> <li>10. Able to determine the speed of sound waves in the air by the resonance phenomenon</li> <li>11. Able to determine the calorimeter of water, heat melting of ice, specific heat of copper</li> <li>12. Able to determine the length expansion coefficient of metal</li> </ol>
Content	Uncertainty principle; measuring tools and the accuracy; mechanics; fluids; elasticity; waves; thermodynamics
Soft skill Attribute	Discipline and cooperation

Study/ exam achievements	<p>Students are considered to be competent and pass if at least get 40 of maximum mark of the final score.</p> <p>Final score: Paper project (10%), quiz (15%), mid exam (35%), final exam (35%), and soft skill (5%)</p> <p>Final index is defined as follow:</p> <p>A = 75-100</p> <p>AB = 70-74,99</p> <p>B = 65-69,99</p> <p>BC = 60-64,99</p> <p>C = 55-59,99</p> <p>D = 40-54,99</p> <p>E = 0-39,99</p>
Media	Laboratory equipment
Learning Method	Practical work
Literature	-
Note	The requirement of general physics II (Practical Work)