

**Module Handbook**

Module Name:	Basic Physics II (Practical Work)
Module Level:	Bachelor
Abbreviation, if applicable:	FID105
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	Even (2 <sup>nd</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	general physics II (Practical Work)
Learning goals/ competencies	<b>General competence (knowledge) :</b> Able to use the physic laboratory equipment associated with optical equipment, electrical magnetic, and radiation correctly  <b>Specific competence:</b> <ol style="list-style-type: none"><li>1. Able to understand the methods of experimental equipment electrical resistance, oscilloscope, and magnetics</li><li>2. Able to understand the methods of calor experimental equipment, positive and negative lens, microscope</li><li>3. Able to understand the methods of radiation equipment, computer simulations of electrical circuits, and inductance</li><li>4. Able to determine the value of electrical resistance and the capacitance in electric circuit</li><li>5. Able to measure and determine the inductance of the inductor in a circuit</li><li>6. Able to measure the AC-DC voltages, signal frequency, and phase difference of RL-RC circuit</li><li>7. Able to measure the magnetic field of a solenoid and PLN electrical frequency</li><li>8. Able to determine mechanical calor</li><li>9. Able to determine the physical quantities in electrical circuits</li><li>10. Able to determine the focal length of the positives and negatives lens</li><li>11. Able to determine the diameter and a numerical aperture of microscopic object</li><li>12. Able to determine the efficiency of Geiger Muller tube, the linear absorption coefficient of the material and HVL</li></ol>

Content	Introduction and explanation of laboratory equipment; electrical-magnetic; optics; core physics
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 soffskill (5%)</p> <p>Final index is defined as follow:  A = 75-100  AB = 70-74,99  B = 65-69,99  BC = 60-64,99  C = 55-59,99  D = 40-54,99  E = 0-39,99</p>
Media	Laboratory equipment
Learning Method	Practical work
Literature	-
Note	The requirement of general physics II (Practical Work)