MODULE HANDBOOK

Course:	**Physics I (Experimental)**
Module Level:	Undergraduate
Code:	FID114
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	1st / First year
Module coordinator(s):	Supadi, S.Si., M.Si.
Lecturer(s):	Lecturers Team
Language:	Bahasa Indonesia
Classification within the Curriculum	Compulsory Course / ~~Elective Course~~
Teaching format / class hours per week during semester:	2 hours of lectures (100 min / hour)
Workload:	2 hours of worksheet and pretest, 2 hours of laboratory work, 2 hours of group discussion, writing report, 13 weeks per semester, total of 78 hours per semester ~ 2,6 ECTS*
Credit Points:	1
Requirement(s):	-
Learning Goals/Competences:	**General Competence (Skill):** To demonstrate an ability to conduct experiment in physics (mechanics). **Specific Competence:** 1. Ability to plan and prepare practical laboratory investigations on density of solids and liquid, surface tension and viscosity. 2. Ability to plan and prepare practical laboratory investigations on sound wave, energy & momentum and string constant. 3. Ability to plan and prepare practical laboratory investigations on specific heat & linear expansion coefficient 4. Ability to plan and prepare practical laboratory investigations on gravitation, Young Modulus and torsion modulus.
Contents:	Density of solids and liquid, surface tension and viscosity, sound wave, energy & momentum, string constant, specific heat, linear expansion coefficient, gravitation, Young modulus and torsion modulus.
Soft Skill Attribute:	Effort and ethic
Study/Exam Achievements:	Students are considered competent and eligible to pass the course upon obtaining at least 40 of maximum mark of the exams. Final exam is skill test to set up experiment). Final score is calculated as follow: 21% pre test +21% homework +28%report+ + 30% final exam

	Final grade 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
Forms of Media:	Set up experiment and laboratory equipments
Learning Methods:	Powerpoint slides, LCD projectors, whiteboards and laboratory equipments.
Literature(s):	1. Petunjuk Praktikum Fisika Dasar I, Departemen Fisika, FST Universitas Airlangga, 2015. 2. Alonso and Finn*, Fundamental University Physics, Vol. 1,* Addison Wesley, *1992,* 3. Tipler, P.A., Mosca G. *Physics for scientists and engineers* (5ed., extended version) 4. Halliday, D., Resnick, R., and Walker, J., *Principle of Physics*, 9th edition (extended), John Wiley & Sons, 2011 5. Jewet, J.W. and Serway, R. A., 2006*, Serway's Principles of Physics, A Calculus Based Text,* 4th Edition*,* Thomson & Brooks/Cole, Australia
Notes:	3 Parallel classes/session *Total ECTS={(total hours workloadx50 min)/60 min}/25 hours Each ECTS is equals with 25 hours.