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Faculty of Mathematics and Natural Sciences
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Undergraduate Programme in Mathematics

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MODULE HANDBOOK

Module name	Basic Physics I
Module level, if applicable	Bachelor
Code, if applicable	MFF-1011
Subtitle, if applicable	-
Courses, if applicable	Basic Physics I
Semester(s) in which the module is taught	1st (first)
Person responsible for the module	Department of Physics
Lecturers	Team
Language	Bahasa Indonesia
Relation to curriculum	Compulsory course in the first year (1st semester) Bachelor Degree
Type of teaching, contact hours	150 minutes lectures and 180 minutes structured activities per week.
Workload	Total workload is 136 hours per semester, which consists of 150 minutes lectures per week for 14 weeks, 180 minutes structured activities per week, 180 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam.
Credit points	3
Requirements according to the examination regulations	Students have taken Basic Physics I course (MFF-1011) and have an examination card where the course is stated on.
Recommended prerequisites	No prerequisite is needed
Module objectives/intended learning outcomes	After completing this course the students should be able to : CO understand the concept of electricity, magnet, optic, and the theory of quantum in physics.
Content	• Measurement and Magnitude of Physics • Kinematics • Dynamics I: The Concept of Style • Dynamics II: Business and Energy, Many Particle Systems • Dynamics of Stringent I: Torque and Moments of Inertia • Dynamic Strength II: Equilibrium of Rotation and Translations, Gravity, Fluid, Vibration, Waves • Temperature, Heat and Law of Thermodynamics I, • Entropy and the Law of Thermodynamics II
Study and examination requirements and forms of examination	The final mark will be weighted as follows: No Assessment methods (components, activities) Weight (percentage) 1 Final Examination 40% 2 Mid-Term Examination 30% 3 Class Activities: Quiz, Homework, etc. 30% The initial cut-off points for grades A, B, C, and D should not be less than 80%, 70%, 50%, and 40%, respectively.
	Board, LCD Projector, Laptop/Computer
Reading List	1. Halliday, D., Resnick, R and Walker, J., 2014, *Fundamental of Physics, Fundamentals of Physics Extended, tenth edition*, John Wiley & Sons, Inc., USA. 2. Tipler, P.A., 2008, *Physics for Scientists and Engineers, sixth edition*, W. H. Freeman and Company, New York, USA 3. Raymond A. Serway, and John Jewett, 2014, *Physics for Scientists and Engineers*,

	Brooks / Cole Cengage Learning, Singapore.

PLO and CO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
CO 1		v			v				