FI381 History of Physics

Module name:	History of Physics					
Module level, if applicable: Undergraduate						
Code:	FI381					
Sub-heading, if applicable:	-					
Classes, if applicable:	-					
Semester:	7 th					
Module coordinator:	Nanang Dwi Ardi					
Lecturer(s):	Nanang Dwi Ardi					
Language:	Bahasa Indonesia					
Classification within the curriculum:	Compulsory course					
Type of Teaching	Contact hours per week during the semester	Class Size				
 Lecture (discussions and presentation). Structured activities (assignments based on conceptual approaches) Self-study (reading literature) 	1 hour 40 minutes	35				
Workload:	Total workload is 91 hours (3.2 ECTS) per semester which consists of 100 minutes lectures (before mid-exam) and (student presentation after mid exam) (0.82 ECTS), 120 minutes structured activities (0.99 ECTS), and 120 minutes self-study per week for 14 weeks (0.99 ECTS), 100 minutes for each exam (0.12 ECTS), and 240 minutes for each exam preparation (0.28 ECTS).					
Credit points:	3.2 ECTS					
Pre-requisites course(s):	-					
Course Learning Outcomes (CLO):	 After taking this course the students have ability to: CLO1. Analyse the development of experimental methods in physics CLO2. Analyse the development of classical physics and modern physics CLO3. Formulate the paradigm of the development of physics in the early classical physics and the development of modern physics 					
Content:	Periodization of the History of Physics, Pre-Science, Ancient Babylonian, Egyptian and Greek Contributions to Physics, Islam contribution in the development of Physics, The Development of Experimental Methods in Physics, The development of classical physics, Developments in physics at the end of the 19th century, Modern physics development, - The development of philosophy and science from the 20th century to the present.					

	The final mark will be weight as follow:							
			Assessment Techniques	Weight				
Study/exam achievements:	1 Total	CLO1, CLO2, CLO3,	Subject specific competence: a. Individual assignments b. Article c. Presentation d. Mid Exam e. Final Exam	Written Written Performance Written test Written test	10% 15% 25% 25% 25% 100%			
Forms of media:	Board, LCD Projector, Laptop/Computer, stream video conference, relevant documentary movies							
Literature:	 Bynum, W. (2012). A Little History of Science. Yale University Press US. Mcclellan and Dorn. (2015). Science and Technology in World History: An Introduction. Johns Hopkins University Press. Varvoglis, H. (2014). History and Evolution of Concepts in Physics. Springer International Publishing Switzerland ISBN 978-3-319-04291-6 Williams, H.S., 1904-1910 (2016). A History of Science. New York Harper 							

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1				\checkmark								
CLO2												
CLO3												