

## UNIVERSITAS NEGERI YOGYAKARTA FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF PHYSICS EDUCATION

### PHYSICS STUDY PROGRAM

Colombo St. Number 1 Yogyakarta 55281 Telephone (0274)565411 Ext. 217, fax (0274) 548203 Web: http://fisika.fmipa.uny.ac.id/, E-mail: fisika@uny.ac.id/

### **Bachelor of Physics**

#### **MODULE HANDBOOK**

Module name:	Nanophysics			
Module level, if applicable:	Bachelor Program			
Code:	FSK6251			
Sub-heading, if applicable:	-			
Classes, if applicable:	-			
Semester:	Odd			
Module coordinator:	Wipsar Sunu Brams Dwandaru, M.Sc., Ph.D			
Lecturer(s):	Wipsar Sunu Brams Dwandaru, M.Sc., Ph.D			
Language:	Indonesian			
Language.	English			
Classification within the	Elective Course			
curriculum:	Licenve Course			
Teaching format/class hours	150 minutes lectures and 180 minutes structured activities per			
per week during the	Week.			
semester:	WECK			
	Total workload is 136 hours per semester, which consists of			
Workload:	150 minutes lectures, 180 minutes structured activities, and			
	180 minutes individual study per week for 16 weeks.			
Credit points:	2 SKS (3.25 ECTS)			
Prerequisites course(s):	-			
Course Outcomes	CO1. To understand the concepts of Nanoscience and Nanotechnology.			
	CO2. To understand the concepts of Nanomaterial synthesis.			
	CO3. To understand the characterizations of Nanomaterials.			

	CO4. To understand the application of Nanomaterials in daily life.  CO5. To be able to do simple synthesis and characterizations							
Content:	of a Nanomaterial.  The content of this subject includes: a) Definitions of Nanosciene and Nanotechnology; b) Classification of Nanomaterials; c) Synthesis of Nanomaterials; d) Characterizations of Nanomaterials; e) Applications of Nanomaterials in daily life; f) simple project in synthesizing and characterizing a certain Nanomaterial.							
	The achievements of this study are that students are able understand various Nanomerials, which are advanteged and applicable in daily life. Moreover, students are able to simple synthesis and characterizations of a cert Nanomaterial.  The final mark of the subject may be given as follows:							
Study/exam achievements:	No.	CO1, CO2,	Object a. Individual	Technique a.	Weight			
	1	CO3, CO4, and CO5	Assignment b. Group Assignment c. Final Exam	Presentation b. Project c. Written	40% 40% 20%			
	1	CO4,	b. Group Assignment	Presentation b. Project	40%			
Forms of media:		CO4, and CO5	b. Group Assignment	Presentation b. Project c. Written Total	40% 20%			

# PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1		<b>/</b>							
CO2		<b>/</b>							
CO3		/							
CO4		/							
CO5			<b>/</b>						