

FI481 Modeling and Simulation of Physics

Module name:	Modeling and Simulation of Physics	
Module level, if applicable:	Undergraduate	
Code:	FI-481	
Sub-heading, if applicable:	-	
Classes, if applicable:	-	
Semester:	7 th	
Module coordinator:	Lilik Hasanah	
Lecturer(s):	Lilik Hasanah	
Language:	Bahasa Indonesia	
Classification within the curriculum:	Compulsory course	
Type of Teaching:	Contact hours per week during the semester	Class Size
<ol style="list-style-type: none"> 1. Lecture (conceptual, contextual and problem-solving approaches through expository, discussions and exercises). 2. Structured activities (assignments based on conceptual, contextual and problem-solving approaches) 3. Self-study (reading literature and project) 	2 hours 30 minutes	35
Workload:	The total workload is 136 hours/8160 minutes (4.8 ECTS) per semester, consisting of 20 hours/1200 minutes lectures (0.71 ECTS) per week for 8 week, 57 hours/3420 minutes structured activities (1.48 ECTS) and 51 hours/3060 minutes self-study (1.71 ECTS) per week for 14 weeks, 8 hours/160 minutes for two exams (0.9 ECTS).	
Credit points:	4.8 ECTS	
Pre-requisites course(s):	FI121 Basic Physics I, FI122 Basic Physics II, FI222 Mathematical Physics I, FI240 Mathematical Physics II, FI461 Computational Physics	
Course Learning Outcomes (CLO):	<p>After taking this course the students have ability to:</p> <p>CLO1. Describe system and model. CLO2. Describe physics modelling principal. CLO3. Describe numerical modelling techniques using various software. CLO4. Analyse computer simulation process. CLO5. Analyse the validation process.</p>	

