

Module Handbook

Module Name	:	Special Theory of Relativity
Module Level	:	Bachelor
Abbreviation, if applicable	:	FI2211
Sub-heading, if applicable	:	
Semester/ term	:	4
Module Coordinator(s)	:	
Lecturer(s)	:	
Language	:	Bahasa Indonesia
Classification within the curriculum	:	Elective studies
Teaching format/ class hours per week during the semester	:	2 hours lectures
Workload	:	2 hours lectures with 4 hours individual studies and structured activities,
Credits Points	:	2
Requirements	:	
Learning goals	:	<p>Knowledge:</p> <p>(1) Demonstrate knowledge of Newton mechanics, waves and electromagnetic theory.</p> <p>(2) Demonstrate knowledge of Einstein special relativity theory and its implication.</p> <p>(3) Demonstrate knowledge of Minkowski spacetime, four vector and tensor.</p> <p>(6) Demonstrate knowledge of equivalence principle and Einstein General Relativity theory and its implication.</p> <p>Skill:</p> <p>(4) Demonstrate ability to analyze and solve kinematics problems with Einstein special relativity theory.</p> <p>(5) Demonstrate ability to analyze and solve kinematics and dynamics in Minkowski spacetime using four vector and tensor concept.</p>
Content	:	The course will provide students with basic knowledge about special and general theory of relativity and their consequences and implications. In general, this course emphasizes the physical and conceptual aspects, not the mathematical aspects