

Department of **Physics**
Graduate - Physics
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)

Smt	Code	Courses	Credits
1	SF2001	Electromagnetics	2
1	SF2002	Quantum Physics	2
1	SF2003	Statistical Physics	2
1	SF2004	Mathematical Physics	2
1	SF2301	Classic Mechanics	3
1	SF2302	Electrodynamics	3
1	SF2411	Applied EM and Resistivity**	3
1	SF2412	Gravity Potential and Magnetic**	3
1	SF2423	Measurement System**	3
1	SF2431	Condensed Matter Physics**	3
1	SF2441	Advanced Modern Optics**	3
1	SF2451	Lie Algebra**	3
2	SF2303	Statistical Mechanics	3
2	SF2304	Quantum Mechanics	3
2	SF2305	Research Method in Physics	2
2	SF2401	Renewable Energy**	3

Smt	Code	Courses	Credits
2	SF2421	Sensor system**	3
2	SF2426	Instrumentation**	3
2	SF2435	Ceramics**	3
2	SF2442	Integrated Optics**	3
2	SF2443	Optical Communication System**	3
2	SF2452	Quantum Electrodynamics**	3
2	SF2455	Soliton and Instaton**	3
2	SF2501	Thesis Preliminary	2
3	SF2413	Tectonic Seismology **	3
3	SF2414	Seismic Reflection**	3
3	SF2424	Artificial Intelligence**	3
3	SF2432	Polymers**	3
3	SF2434	Diffraction Data Analysis**	2
3	SF2436	Semiconductors**	3
3	SF2437	Composite Materials**	3
3	SF2445	Microwave Communication	3

Smt	Code	Courses	Credits
		System**	
3	SF2453	Quantum Thermodynamics**	3
3	SF2502	Thesis	6
4	SF2415	Earthquake Data Analysis**	3
4	SF2422	Modeling and Simulation**	3
4	SF2425	Advanced Signal Processing**	3
4	SF2433	Degradation of Materials**	2
4	SF2438	Metals**	3
4	SF2444	FD BPM Programming Technique**	3
4	SF2447	FDTD Programming Technique**	3
4	SF2448	Circuit Technique and Microstrip Antenna**	3
4	SF2454	Quantum Information**	3

* Select one of those with stars

** Elective courses