Mapping Courses that supported PLO

No	Code	MK	CU	ECTS	PLO (Outcame)										
					1	2	3	4	5	6	7	8	9	10	11
1	1000002026	Religion	2	3,18											√
2	1000002033	Civic education	2	3,18											√
3	1000002018	Pancasila	2	3,18											√
4	1000002003	Indonesian	2	3,18							√				
5	4520103021	English	2	3,18						√	√				
6	1000002011	Basic Socio-cultural Science	2	3,18											√
7	4520102216	Enterpreneurships	2	3,18									√		
8	4520102227	Digital Literacy	2	3,18							√				
9	4520102219	Physical Education and Fitness	2	3,18									√		
10	4520103026	Biology	3	4,77	√										
11	4520103104	Chemistry	3	4,77	√										
12	4520104055	Basic Physics I	3	4,77	√	√									
13	4520101221	Basic Physics Practicum I	1	1,59					√		√				
14	4520103118	Basic Mathematics	3	4,77		√									
15	452102196	Physics Measurement System	2	3,18	√										
16	4520104057	Basic Physics II	3	4,77	√	√									
17	4520101229	Basic Physics Practicum II	1	1,59					√		√				
18	4520102107	Conservation of Natural Resources	2	3,18									√		
19	4520104070	Mathematical Physics I	3	4,77		√	√	√							
20	4520103053	Earth Physics	3	4,77	√					√					
21	4520103041	Basic Electronics I	2	3,18	√	√									
22	4520101230	Basic Electronics Practicum I	1	1,59					√		√				
23	4520104127	Mechanics	4	6,36	√	√	√								
24	4520104071	Mathematical Physics II	3	4,77		√	√	√							
25	4520103209	Thermodynamics	3	4,77	√	√	√								
26	4520104086	Materials Science	3	4,77	√					√				√	
27	4520103042	Basic Electronics II	2	3,18	√	√									
28	4520101231	Basic Elektronics Practicum II	1	1,59					√		√				
29	4520103233	Mathematical Physics III	3	4,77		√	√	√							
30	4520103074	Modern Physics	3	4,77	√	√	√								
31	4520103114	Electromagnetism	3	4,77	√	√	√								
32	4520103084	Waves	3	4,77	√	√	√								
33	4520102034	Physics Experiment I	2	3,18					√		√	√			
34	4520104065	Quantum Physics	4	6,36			√	√						√	
35	4520102149	Optics	2	3,18	√	√									
36	4520102035	Physics Experiment II	2	3,18					√		√	√			
37	4520103043	Electronics (Advanced)	2	3,18			√	√							
38	4520103082	Solid-state Physics	3	4,77			√	√						√	
39	4520103079	Physical Statistics	3	4,77			√	√						√	
40	4520102105	Colloquium	2	3,18								√	√	√	
41	4520102239	Physics Experiment III	2	3,18					√		√	√			
42	4510102116	Industrial Management	2	3,18								√	√		
43	4520103137	Nuclear Physics	3	4,77			√	√						√	
44	4520102143	Research methodology	2	3,18							√	√	√	√	
45	4520102203	Statistics	2	3,18			√	√							
46	4520102203	Philosophy of Natural Sciences	2	3,18	√										
47	4520102049	Community Service Program	3	4,77								√	√	√	

No	Code	MK	CU	ECTS	PLO (Outcame)										
					1	2	3	4	5	6	7	8	9	10	11
48	4520102217	PKL	2	3,18					√			√	√		
49	4520106199	Thesis	6	9,54					√	√	√	√	√	√	
50	4520102007	Physical System Analysis	2	3,18	√	√	√	√							
51	4520103210	Thermodynamics of Material	2	3,18					√	√	√				
52	4520103137	Material Characterization Method	2	3,18						√	√	√			
53	4520102250	Sensor	2	3,18				√	√			√	√		
54	4520102197	Microcontroller	2	3,18				√	√			√	√		
55	4520102237	Control System	2	3,18				√	√			√	√		
56	4520102242	Robotics	2	3,18						√			√	√	
57	4520103169	Digital Signal Processing	2	3,18			√	√	√		√	√	√	√	
58	4520102150	Optoelectronics	2	3,18								√		√	
59	4520103037	Electroacoustic	2	3,18								√		√	
60	4520102251	Medical Physics	2	3,18						√		√		√	
61	4520102076	Polymer Physics	2	3,18								√		√	
62	4520103018	Alloy Material	2	3,18					√		√	√	√	√	
63	4520103244	Renewable Energy	2	3,18						√		√	√		
64	4520103130	Material Fabrication Method	3	4,77					√	√		√	√		
65	4520103111	Diffraction Data Analysis	2	3,18						√		√		√	
66	4520103109	Corrosion	2	3,18						√		√	√		
67	4520102067	Metal Physics	2	3,18						√		√	√		
68	4520102098	Ceramics	2	3,18						√		√	√		
69	4520102096	Capita Selecta of Material Physics	2	3,18				√	√		√	√		√	
70	4520102252	Introduction to Geodynamics and Geothermal	2	3,18				√	√	√	√	√	√	√	
71	4520102246	Physics of Tsunamis	2	3,18			√	√		√	√	√	√	√	
72	4520102075	Physical Oceanography	2	3,18			√	√		√	√		√	√	
73	4520102142	Geophysical Measurement Method	2	3,18	√					√	√			√	
74	4520102247	Mitigation of Natural Disasters	2	3,18					√	√	√		√	√	
75	4520102254	Geophysical Fluid Dynamics	2	3,18			√	√		√	√	√	√	√	
76	4520102058	Physics of Volcanoes	2	3,18	√					√	√			√	
77	4520102077	Physics of Seismology	2	3,18			√	√		√	√	√	√	√	
78	4520102248	Physics of Atmosphere	2	3,18			√	√		√	√	√	√	√	