

24	8320103052	Subjects for Social Life	Community Service Program	3				√	√	√		√			√
25	8320103059	Scientific and Skills Courses	Basic Engineering Mathematics	3						√	√				
26	8320103037	Scientific and Skills Courses	Engineering Physics	2						√	√				
27		Scientific and Skills Courses	Practical Physics Engineering	1						√			√	√	
28	8320102087	Scientific and Skills Courses	Vocational Education	2	√	√	√			√					
29	8320102156	Scientific and Skills Courses	Basic Electric Circuit	2						√	√				
30	8320103060	Scientific and Skills Courses	Advanced Engineering Mathematics	3						√	√				
31	8320102159	Scientific and Skills Courses	Advanced Electrical Circuits	2						√	√				
32	8320102061	Scientific and Skills Courses	Basic Electromagnetic Field	2						√	√				
33	8320102030	Scientific and Skills Courses	Basic Digital Electronics	2						√	√				
34	8320103180	Scientific and Skills Courses	Learning strategies	2	√	√	√			√					
35	8320102039	Scientific and Skills Courses	Computer programming	2						√	√				
		Code	Course Title	CU	PLO										
					1	2	3	4	5	6	7	8	9	10	11
36	8320102062	Scientific and Skills Courses	Advanced Electromagnetic Fields	2						√	√				
37	8320102031	Scientific and Skills Courses	Advanced Digital Electronics	2						√	√				
38		Scientific and Skills Courses	Education Management	2	√	√	√			√					
39	8320102115	Scientific and Skills Courses	Industry practice	2					√	√				√	√
Communication Electronics Expertise Program															
40	8320102123	Scientific and Skills Courses	Digital Electronics Practicum	1						√			√	√	
41	8320103025	Scientific and Skills Courses	Electronics	2						√	√				
42	8320102164	Scientific and Skills Courses	Sensors and Actuators	2						√	√				
43	8320102184	Scientific and Skills Courses	Laser technique	2						√	√				
44	8320102097	Scientific and Skills Courses	Electronic Measurement	2						√	√		√	√	
45	8320102152	Scientific and Skills Courses	Basic Electronics Circuit	2						√	√				
46	8320103094	Scientific and Skills Courses	Digital Signal Processing	2						√	√				
47		Scientific and Skills Courses	Electronic image	2						√	√		√	√	

48	8320102010	Scientific and Skills Courses	Computer Applications in Electronic Studies	2							√			√	√	
49		Scientific and Skills Courses	Basic Telecommunication Systems	2							√	√				
50	8320103182	Scientific and Skills Courses	Audio Video Techniques	3							√	√				
51	8320102049	Scientific and Skills Courses	Data communication	2							√	√				
52	8320102153	Scientific and Skills Courses	Advanced Electronic Circuit	2							√	√				
53	8320102122	Scientific and Skills Courses	Electronics Practicum	1							√			√	√	
54	8320103041	Scientific and Skills Courses	Telecommunications Network	2							√	√				
55	8320103175	Scientific and Skills Courses	Telecommunication System	2							√	√				
56	8320102133	Scientific and Skills Courses	Telecommunications Practicum	1							√			√	√	
57	8320102170	Scientific and Skills Courses	Fiber Optic Communication System	2							√	√				
58	8320103077	Scientific and Skills Courses	Microcontroller	3							√	√				
59		Scientific and Skills Courses	Microcontroller Practicum	1							√			√	√	
60	8320103147	Scientific and Skills Courses	Electronics Design	3							√			√	√	
61	8320102006	Scientific and Skills Courses	Antennas and Propagation of Waves	2							√	√				
62		Scientific and Skills Courses	Antenna Practices and Wave Propagation	1							√			√	√	
63	8320102162	Scientific and Skills Courses	Industrial Robot	2							√	√				
64	8320103064	Scientific and Skills Courses (selective)	Mechatronics	2							√	√				
65	8320102193	Scientific and Skills Courses (selective)	Switching Techniques	2							√	√				
66	8320102146	Scientific and Skills Courses (selective)	Radar and Navigation	2							√	√				
67		Scientific and Skills Courses (selective)	Embedded System	2							√	√				
68		Scientific and Skills Courses (selective)	IoT	2							√	√				
69		Scientific and Skills Courses (selective)	Industrial Automation	2							√	√				
Electric Power Engineering Expertise Program																
40	8320102012	Scientific and Skills Courses	Electricity Materials	2							√	√				
41	8320102039	Scientific and Skills Courses	Electrical Instrumentation and Measurement	2							√	√		√		

42	8320102067	Scientific and Skills Courses	Engineering drawings	3							√	√		√		
43	8320102202	Scientific and Skills Courses	Transformer	2							√	√				
44	8320102120	Scientific and Skills Courses	Electromechanical Basic Practicum	2							√			√	√	
45	8320102004	Scientific and Skills Courses	Electric Power System Analysis	2							√	√				
46	8320102027	Scientific and Skills Courses	Power Electronics	2							√	√			√	
47	8320102071	Scientific and Skills Courses	AC Electric Machine	2							√	√			√	
48	8320102168	Scientific and Skills Courses	Electric Power Distribution System	2							√	√		√	√	
49	8320103172	Scientific and Skills Courses	Control and Control System	2							√	√			√	
		Code	Course Title	CU	PLO											
					1	2	3	4	5	6	7	8	9	10	11	
50	8320103189	Scientific and Skills Courses	Refrigeration and Air Conditioning Engineering	2						√	√		√	√		
51	8320102130	Scientific and Skills Courses	Electrical Engineering Practicum	2						√			√	√		
52	8320102084	Scientific and Skills Courses	Maintenance and Repair of Electrical Machines	2						√	√		√	√		
53	8320103101	Scientific and Skills Courses	Electric Lighting Planning and Installation	2						√	√			√		
54	8320103102	Scientific and Skills Courses	Electric Power Planning and Installation	3						√	√			√		
55	8320103072	Scientific and Skills Courses	DC Electric Machine	2						√	√					
56	8320102126	Scientific and Skills Courses	Electrical Installation Practicum	2						√			√	√		
57	8320103139	Scientific and Skills Courses	Programmable Logic Controller (PLC)	2						√	√		√	√		
58	8320102128	Scientific and Skills Courses	Full Practice and Automation	2						√			√	√		
59	8320102017	Scientific and Skills Courses	Bengkel Listrik	2						√			√	√		
60	8320103144	Scientific and Skills Courses	Electric Power System Protection	3						√	√		√	√		
61	8320103176	Scientific and Skills Courses	Electric Power Transmission System	3						√	√		√	√		
62		Scientific and Skills Courses	Electric Energy Generation	2						√	√					
63	8320102095	Scientific and Skills Courses	Optimization and Operation of the Electric Power System	3						√	√					

64	8320102165	Scientific and Skills Courses	Electric Power System Simulation	2						√	√			
65	8320102085	Scientific and Skills Courses (selective)	Selection and Use of Electric Motors	2						√	√		√	√
66	8320102104	Scientific and Skills Courses (selective)	Electric Power Network Planning	2						√			√	√
67	8320102105	Scientific and Skills Courses (selective)	Electrical Engine Planning	2						√			√	√
68	8320102194	Scientific and Skills Courses (selective)	High Voltage Engineering	2						√	√			
69	8320102019	Scientific and Skills Courses (selective)	Scada Basics	2						√	√		√	√