Curriculum of Transportation Program														
Note: CP - Credit Point, S - Semester, L - Lecture, P - Practice					Workload		S1	S2	S3	S4	S5	S6	S7	S8
Module designation	Modules courses	Type	Chinese CP	ECT CP	Contact Hours	Self-study Hours	CP	CP	CP	CP	CP	CP	CP	CP
Mathematics and Physics	Advanced Mathematics A1	L	4	4	72	48	4							
	Advanced Mathematics A2	L	6	6	108	72		6						
	College Physics B1	L&P	3	3	54	36	3							
	College Physics B2	L&P	3	3	54	36		3						
	College Physics Experiments B1	P	2	2	36	24	2							
	College Physics Experiments B2	P	2	2	36	24		2						
	Linear Algebra A	L	3	3	54	36			3					
	Probability and Statistics A	L	3	3	54	36				3				
	Operations Research	L&P	4	4	72	48				4				
	Subtotal		30	30	540	360	9	11	3	7	0	0	0	0
Informatics	College Computer A	L&P	4	4	72	48	4							
	Python Programming B	L&P	4	4	72	48		4						
	Information System and Database	L&P	3	3	54	36				3				
	Subtotal		11	11	198	132	4	4	0	3	0	0	0	0
Engineering Fundamentals	Engineering Drawing and CAD	L&P	4	4	72	48	4							
	Fundamentals of Transportation Electrotechnics Technology	L&P	4	4	72	48			4					
	Engineering Mechanics	L&P	4	4	72	48			4					
	Subtotal		12	12	216	144	4	0	8	0	0	0	0	0
Engineering Applications	Introduction to Rail Transit	L	2	2	36	24			2					
	Transportation Organization	L&P	2	2	36	24			2					
	Principles of Urban Planning	L&P	3	3	54	36				3				
	Transport Economics	L	2	2	36	24				2				
	Traffic Engineering	L&P	3	3	54	36			3					

	Subtotal		12	12	216	144	0	0	7	5	0	0	0	0
Electives	Introduction to Intelligent Transportation System	L	3	3	54	36		3						
	Fundamentals and Technology of Sensors	L&P	3	3	54	36				3				
	Infrastructure and Equipment of Rail Transit	L&P	3	3	54	36				3				
	Artificial Intelligence Technology and Application	L&P	3	3	54	36					3			
	Traffic Information Detection and Processing	L&P	3	3	54	36					3			
	Railway Vehicle and Operation Control	L&P	3	3	54	36						3		
	Road Traffic Design	L&P	3	3	54	36				3				
	Operation Organization and Management of Rail Transit	L&P	3	3	54	36				3				
	Traffic Planning	L&P	3	3	54	36					3			
	Rail Transit Train Operation Organization	L&P	3	3	54	36					3			
	Modeling and Simulation of Transportation System	L&P	3	3	54	36					3			
	Traffic Management and Control	L&P	3	3	54	36						3		
	Green Manufacturing and Environment	L&P	2	2	36	24				2				
	Geographic Information System and Application	L&P	3	3	54	36				3				
	Control Engineering Basis	L&P	3	3	54	36					3			
	Traffic Safety Engineering	L&P	3	3	54	36					3			
	Data Analysis and Data Mining	L&P	3	3	54	36					3			
	Planning and Design of Transportation Terminals	L&P	3	3	54	36					3			
	Traffic System Analysis	L	3	3	54	36					3			
	Project Management	L&P	3	3	54	36					3			
	Modern C++ Programming	L	3	3	54	36						3		
	Measurement and Application of Key	L&P	2	2	36	24						2		

	Standards													
	Subtotal[1]		25	25	450	300	0	1.2	0	6.6	12.9	4.3	0	0
Foreign Language	College English A1	L	4	4	72	48	4							
	College English A2	L	4	4	72	48		4						
	German for Beginners I[2]	L	4	4	72	48			4					
	Technical English and Thesis Writing[2]	L&P	3	3	54	36					3			
	Subtotal[3]		11	11	198	180	4	4	1.7	0	1.3	0	0	0
General Courses	Chinese Modern and Contemporary History	L&P	3	3	54	36	3							
	Ideology Morality and Rule under the Law	L	3	3	54	36	3							
	Basic Principles of Marxism	L	3	3	54	36		3						
	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	L	3	3	54	36			3					
	Introduction to Maoism and Socialist Theoretical System with Chinese Characteristics	L&P	3	3	54	36				3				
	Situation and Policy Education 1	L	0.5	0.5	9	6	0.5							
	Situation and Policy Education 2	L	0.5	0.5	9	6		0.5						
	Situation and Policy Education 3	L	1	1	18	12			0.2	0.2	0.1	0.2	0.3	
	Sports Club I~IV	L&P	2	2	60	0	0.5	0.5	0.5	0.5				
	Military Theory	L	2	2	36	24	2							
	Mental Health for College Students	L	2	2	36	24		2						
	National Security Education for College Students	L	1	1	18	12	1							
	Extended general education courses	L	8	8	144	96					4	4		
	Subtotal		32	32	600	360	10	6	3.7	3.7	4.1	4.2	0.3	0
Practical Training	Military Training	P	2	2	60	0	2							
	Industry Cognition	L	2	2	36	24	2							
	Engineering Survey Practice and Labor	L	3	3	10	80			3					

	Innovate Practice Project L1	P	2	2	36	24			2					
	Innovate Practice Project L2	P	3	3	18	72				3				
	Innovate Practice Project L3	P	3	3	18	72					3			
	Innovate Practice Project L4	P	3	3	18	72						3		
	Internship in Enterprise	P	19	21	180	450							21	
	Subtotal		37	39	376	794	4	0	5	3	3	3	21	0
Bachelor's Thesis	Bachelor's Thesis	L&P	15	20	180	420								20
	Subtotal		15	20	180	420	0	0	0	0	0	0	0	20
	Total		185	192	2974	2786	35	26.2	28.4	28.3	21.3	11.5	21.3	20

Note:

1. For the Electives module, the subtotal (credits and workload) is calculated based on the minimum requirement of 25 credits to be selected out of 64 available credits. Contact hours, self-study hours, and semester-wise credit distribution are all proportionally estimated according to the minimum 25 credits (i.e., total × 25/64).
2. In the Foreign Language module, students are required to take either "German for Beginners I" or "Technical English and Thesis Writing".
3. The subtotal for the Foreign Language module is calculated based on the minimum required credits and workload. Semester-wise credit distribution is also proportionally calculated based on the minimum credits required.