



Curriculum of Vehicle Engineering (Rail Transit Vehicle)

(Note: CP-Credit Point, S-Semester, L-Lecture, P-Pracitice)		Type	Chinese CP	ECTS CP	Work load		S1	S2	S3	S4	S5	S6	S7	S8
Competence fields	Module				Contact Hours	Self Study Hours	CP	CP	CP	CP	CP	CP	CP	CP
Mathematics, Physics and Chemistry	Unary calculus (1)	L	3	3	48	42	3							
	Unary calculus (2)	L	3	3	48	42	3							
	Multivariate calculus (1)	L	3	3	48	42		3						
	Multivariate calculus (2)	L	3	3	48	42		3						
	Probability Theory and Mathematical Statistics	L	3	3	48	42			3					
	Physics (Mechanics)	L	2	2	32	28		2						
	Physics (Electromagnetism)	L	2	2	32	28		2						
	Wave and optics	L	2	2	32	28			2					
	Heat and Modern Physics	L	2	2	32	28			2					
	Linear Algebra	L	2	2	32	28		2						
	Computational Method	L	2	2	32	28				2				
	College Chemistry	L	2	2	32	28	2							
Informatics	Fundamentals of Computer Applications	L&P	2	3	48	42	3							
	C Language Programming	L&P	3	3	48	42	3							
	VB Programming	L&P	3	3	48	42								
	Information Retrieval	L&P	1	1	16	14	1							
Engineering Fundamentals	Introduction to Programme of Railway Transit	L	1	1	16	14	1							
	Engineering Fluid Mechanics	L&P	2	2	32	28				2				
	Engineering Mechanics (1)	L	3	4	64	56			4					
	Engineering Mechanics (2)	L&P	3	3	48	42				3				
	Fundamentals of Manufacturing Technology	L	3	4	64	56			4					
	Engineering Thermodynamics	L&P	2	2	32	28				2				
	Measurement and Sensor Technology	L&P	2	2	32	28				2				
	Mechanical Principle	L&P	3	3	48	42				3				
	Mechanical Design	L&P	4	5	80	70					5			
	Interchangeability and Technical Measurement	L&P	2	2	32	28					2			
	Electrical Technology	L&P	3	4	64	56			4					
	Electronic Technology	L&P	3	4	64	56				4				
	Automatic Control Theory	L	2	2	32	28					2			
	Engineering Materials	L	2	2	32	28					2			
	Fundamentals of Engineering Drawing	L&P	3	4	64	56	4							
	Hydraulic and Pneumatic Transmission	L&P	2	2	32	28				2				
Power Electronics Technology	L&P	2	2	32	28				2					
Engineering	Introduction to Urban Railway Transit	L	2	2	32	28		2						
	Construction and Principle of Urban Railway Vehicle	L&P	2	2	32	28					2			

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Applications	Electrical Traction and Control of Urban Railway Vehicle	L	2	2	32	28					2				
	Braking Technique of Urban Railway Vehicle	L	2	2	32	28					2				
	Network Control Technology of Urban Railway Train	L	2	2	32	28					2				
Electives	Microcomputer Principle and Interface Technology	L	2	3	48	42					3				
	Finite Element Analysis	L	2	3	48	42									
	Electrical Equipment of Urban Railway Vehicle	L	2	3	48	42						9			
	Railway Vehicle System Dynamics	L	2	3	48	42									
	English for Urban Railway Vehicle	L	2	3	48	42									
	Maintenance Technology of Urban Railway Vehicle	L	2	3	48	42									
	Project Management	L	2	3	48	42									
	Equipment Safety Technology	L	2	3	48	42									
	Fault Diagnosis of Urban Railway Vehicle	L&P	2	3	48	42									
	Operation of Urban Railway Transportation	L	2	3	48	42									
	Traffic Signal for Urban Railway Transportation	L	2	3	48	42									
Foreign Language	Comprehensive College English (2)	L	2	2	32	28	2								
	Comprehensive College English (3)	L	2	2	32	28		2							
	Comprehensive College English (4)	L	2	2	32	28			2						
	College English Listening (2)	L	1	1	16	14	1								
	College English Listening (3)	L	1	1	16	14		1							
	College English Listening (4)	L	1	1	16	14			1						
	College Oral English (2)	L	1	1	16	14	1								
	College Oral English (3)	L	1	1	16	14		1							
	College Oral English (4)	L	1	1	16	14			1						
Practical English Selective Courses (English reading of science and technology, etc)	L	2	2	32	28				2						
General Courses	Introduction to China's Modern and Contemporary History	L&P	3	3	48	42	3								
	Social Situation and Policy	L&P	2	2	32	28	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	Basic Education of College Students'Entrepreneurship	L	0.5	1	16	14	1								
	Military Theories	L	0.5	0.5	8	7	0.5								
	Ideological,Moral Cultivation and Law Basis	L	3	3	48	42		3							
	Introduction to Basic Principles of Marxism	L&P	3	3	48	42			3						
	Introduction to Mao Zedong Thoughts and the Theoretical System of Socialism with Chinese Characteristics (1)	L&P	3	3	48	42					3				
	Introduction to Mao Zedong Thoughts and the Theoretical System of Socialism with Chinese Characteristics (2)	L	2	2	32	28						2			
	Physical Education	P	4	4	120	0	1	1	1	1					
	General Elective Courses	L	6	6	96	84						6			
	Employment Guidance for College Students	L	1	1	16	14							1		
Fundamental Physics Experiments	L&P	0.75	0.75	15	7.5		0.75								

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Practical Training	Comprehensive Physics Experiments	P	0.75	0.75	15	7.5		0.75						
	Design Innovative Physics Experiments	L&P	1	2	30	30			2					
	Practice of Manufacturing Technology Fundamentals	P	3	4	90	30		4						
	Practicum for Mechanical Principles	P	1	2	30	30				2				
	Electrical Engineering Practice	P	1.5	3	45	45				3				
	Practicum for Mechanical Design	P	2	3	60	30					3			
	Braking Experiments of Urban Railway Vehicle	L&P	1	2	30	30								
	Detection Technology Experiments of Urban Railway Vehicle	L&P	1	2	30	30								
	Electrical Traction and Control Experiments of Urban Railway Vehicle	L&P	1	2	30	30						4		
	Driving Simulation Experiments of Urban Railway Vehicle	L&P	1	2	30	30								
	Door System Experiments of Urban Railway Vehicle	L&P	1	2	30	30								
	Practicum for Construction of Urban Railway Vehicle	L&P	4	12	120	240								
	Practicum for Measurement and Sensor Technology	L&P	4	12	120	240							24	
	Practicum for Electrical Equipment of Urban Railway Vehicle	L&P	4	12	120	240								
	Cognition Practice of Rail Transportation	P	2	3	60	30		3						
	Cognition Practice of Urban Railway Vehicle	P	1	3	30	60					3			
Maintenance Practice of Urban Railway Vehicle	P	3	8	90	150						8			
Innovation and Entrepreneurship Project Training	L&P	4	4	64	56							4		
Bachelor Thesis	Bachelor Thesis	L&P	16	30	160	740								30
SUM==240	ECTS PER SEMESTER						29.75	30.75	29.25	30.25	31.25	29.25	29.25	30.25





























































