

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
General Education Courses 41 credits	Politics	Compulsory 14 credits	The Ideological and Moral Cultivation and Legal Basis	Compulsory	3	1	1	School of Marxism
			Conspectus of Chinese Modern History	Compulsory	2		2	School of Marxism
			The Basic Principles of Marxism	Compulsory	3	1	3	School of Marxism
			Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics I	Compulsory	3	1	5	School of Marxism
			Introduction to Mao Zedong Thought and Theories of Socialism with Chinese Characteristics II	Compulsory	3	1	6	School of Marxism
	Foreign language	Compulsory 6 credits	English I	Compulsory	3		1	School of Foreign Languages
			English II	Compulsory	3		2	School of Foreign Languages
		electives 4 credits	Academic English	Electives	2		3	School of Foreign Languages

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			Advanced English B	Electives	2		3	School of Foreign Languages
			Thinking and Academic Skills-Audio, Visual and Oral English	Electives	2		3	School of Foreign Languages
			Workplace English	Electives	2		4	School of Foreign Languages
			Communication and Culture-Audio, Visual and Oral English	Electives	2		4	School of Foreign Languages
	Military	Compulsory 3 credits	Military Theory	Compulsory	2	1	1	Military Department
			Military Skills Training	Compulsory	1	1	1	Military Department
	Physical Education	Compulsory 4 credits	Physical Education I	Compulsory	1		1	P.E. Department
			Physical Education II	Compulsory	1		2	P.E.

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				y				Department
			Physical Education III	Compulsory	1		3	P.E. Department
			Physical Education IV	Compulsory	1		4	P.E. Department
	Transportation	Compulsory 4 credits	Social Science and Ethical Responsibility	Compulsory	2		Every semester	
			Ecology Environment and Life Care	Compulsory	2			
		Electives 4 credits	Artistic Experience and Aesthetic Cultivation	Electives	Limit the course of at least 2 modules to 4 credits			
			Historical Cultural and Human Feelings	Electives				
			Philosophical Wisdom and Critical Thinking	Electives				
	Transportation Engineering and Innovation	Electives						
	Orientation	Compulsory 2 credits	Freshman Seminar	Compulsory	2		1	School of Electrical Engineering
Computer	Compulsory 5 credits	University Computer Foundation A	Compulsory	1	0.5	1	School of Information Science	
		Fundamentals of Computer Programming A	Compulsory	4	1.5	2	School of	

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Basic Courses of the Discipline								Information Science
	Math	Compulsory 19 credits	Calculus BI	Compulsory	5		1	School of Mathematics
			Calculus BII	Compulsory	5		2	School of Mathematics
			Linear Algebra B	Compulsory	3		1	School of Mathematics
			Complex Functions and Integral Transformations B	Compulsory	3		3	School of Mathematics
			Probability Theory and Mathematical Statistics B	Compulsory	3		3	School of Mathematics
			Fundamentals of Physics AI	Compulsory	4		2	School of Physics Science
			Fundamentals of Physics AII	Compulsory	4		3	School of Physics

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Basic Courses of the Discipline	Physics	Compulsory 10 credits						Science
			College Physics Experiments AI	Compulsory	1	1	2	School of Physics Science
			College Physics Experiments AII	Compulsory	1	1	3	School of Physics Science
	Basic Courses	Compulsory 35 credits	Mechanical Drawing B	Compulsory	3	0.5	1	School of Mechanical Engineering
			Electric Circuits AI	Compulsory	4	0.5	2	School of Electrical Engineering
			Electric Circuits AII	Compulsory	4	0.5	3	School of Electrical Engineering
			Compulsory 3 credits	Analogue Electronic Technology A	Compulsory	4		3

Course Type			Course Name		Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
									1 Engineering/ Information Science
				Analogue Electronic Technology B	Compulsory	3		3	School of Electrical Engineering/ Information Science
			Analogue Electronic Technology Experiments		Compulsory	1	1	3	School of Electrical Engineering/ Information Science
		Compulsory 3 credits	Digital Electronic Technology A		Compulsory	4		4	School of Electrical Engineering/ Information Science

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								on Science
			Digital Electronic Technology B	Compulsory	3		4	School of Electrical Engineering/ Information Science
			Digital Electronic Technology Experiments	Compulsory	1	1	4	School of Electrical Engineering/ Information Science
			Signals and Systems	Compulsory	3	0.25	4	electrical
			Engineering Electromagnetic Fields	Compulsory	3		4	electrical
			Principles of Automatic Control	Compulsory	4	0.5	5	electrical
			Principles of Micro-Computer	Compulsory 必修	4	0.5	5	electrical
			Electrical Measurement Technology	Compulsory 必修	2	0.25	6	electrical

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Specialized basic course	Compulsory Group I. 18 credits Group 2 20 credits Group 3 21 credits	Introduction to Electrical Engineering		Compulsory 必修	2		4	electrical
		Engineering Mechanics C		Compulsory	3		5	School of Mechanics
		Power Electronics	Group I/II	Compulsory	4	0.5	6	School of Electrical Engineering
			Group III/IV	Compulsory	4	0.5	5	School of Electrical Engineering
		Electrical Machinery B		Compulsory	4		4	School of Electrical Engineering
		Electrical Machinery B Experiments		Compulsory	1	1	4	School of Electrical Engineering

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			Electrical Machinery AI	Compulsory	4		4	School of Electrical Engineering
			Electrical Machinery AI Experiments	Compulsory	1	1	4	School of Electrical Engineering
			Electrical Machinery AII Experiments	Compulsory	3	0.5	5	School of Electrical Engineering
			Power System Analysis A	Compulsory	4	0.5	5	School of Electrical Engineering
			Power System Analysis B	Compulsory	2		6	School of Electrical Engineering

Course Type			Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
			Computer Networks and Communication	Compulsory	2	0.25	6	School of Electrical Engineering
Specialty	Group I Power supply and automation of rail transit	Compulsory 20 credits	High Voltage Technology	Compulsory	3	0.25	5	School of Electrical Engineering
			Power System Protective Relaying	Compulsory	3	0.5	6	School of Electrical Engineering
			Engineering of Overhead Contact System	Compulsory	3	0.25	6	School of Electrical Engineering
			Power Supply System	Compulsory	3	0.25	6	School of Electrical Engineering

Course Type			Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
			Remote Supervisory and Control Technology	Compulsory	2	0.25	6	School of Electrical Engineering
			Power Supply and Substation Techniques	Compulsory	2		6	School of Electrical Engineering
			Design Project of Overhead Contact Line System Engineering	Compulsory	1	1	7	School of Electrical Engineering
			Design Project of Power System Protective Relaying	Compulsory	1	1	7	School of Electrical Engineering
			Design Project of Remote Supervisory and Control	Compulsory	1	1	7	School of Electrical Engineering

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
Specialty		Design Project of Power Supply and Substation Techniques	Compulsory	1	1	7	School of Electrical Engineering
	Electives 2 credits	Integration of Four Power Sub-system for High Speed Railways	Electives	2		7	School of Electrical Engineering
		Condition Monitoring for Electric Equipment	Electives	2	0.25	7	School of Electrical Engineering
		Microcomputer-based Relay and Substation Automation System	Electives	2		7	School of Electrical Engineering
		Overtoltage Protection and Insulation Coordination of Power System	Electives	2	0.25	7	School of Electrical Engineering

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
		Power Quality Analysis and Control of Rail Transit System	Electives	2		7	School of Electrical Engineering	
		Technology for High Voltage Electrical Apparatus	Electives	2		7	School of Electrical Engineering	
		Maintenance for Overhead Contact Line System	Electives	2		7	School of Electrical Engineering	
	Group II Power system and automation	Compulsory 15 credits	High Voltage Technology	Compulsory	3	0.25	5	School of Electrical Engineering
			Power System Protective Relaying	Compulsory	3	0.5	6	School of Electrical Engineering

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Specialty		Electrical Parts of Power Plant	Compulsory	3	0.5	6	School of Electrical Engineering
		Power System Transient Analysis	Compulsory	2	0.25	6	School of Electrical Engineering
		Design Project of Primary System	Compulsory	2	2	7	School of Electrical Engineering
		Design Project of Secondary Power System	Compulsory	2	2	7	School of Electrical Engineering
	Electives 5 credits	Remote Supervisory and Control Technology	Electives	2	0.25	6	School of Electrical Engineering

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
Specialty		Application of Power Electronics in Power System	Electives	2		6	School of Electrical Engineering
		Microcomputer-based Relay and Substation Automation System	Electives	2		7	electrical
		Condition Monitoring for Electric Equipment	Electives	2	0.25	7	School of Electrical Engineering
		Distribution Network Automation	Electives	2		7	School of Electrical Engineering
		Overvoltage Protection and Insulation Coordination of Power System	Electives	2	0.25	7	School of Electrical Engineering
		Power System Automatic Device	Electives	2		7	School of Electrical Engineering

Course Type			Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
								ing
			Wind Turbine and Photovoltaic Power Generation Systems	Electives	2		7	School of Electrical Engineering
			Smart Grid Practice	Electives	1	1	7	School of Electrical Engineering
Group III Power Electronics and Electrical Drive Control	Compulsory 15 credits		Modern AC Speed Regulating System	Compulsory	2	0.25	6	School of Electrical Engineering
			Power Electronic Equipment and Its Control	Compulsory	2		6	School of Electrical Engineering
			Traction Motor and Electric Appliance	Compulsory	2	0.25	6	School of Electrical Engineering

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								ing
			Electric Traction Drive and Control	Compulsory	2	0.25	7	School of Electrical Engineering
			Train Control Network and Monitoring	Compulsory	2	0.25	7	School of Electrical Engineering
			Computer Aided Motor Design and Experiments	Compulsory	2	2	6	School of Electrical Engineering
			Design Project of Electric Traction System	Compulsory	1	1	7	School of Electrical Engineering
			Power Electronics and Electrical Drive Systems Design and Experiments	Compulsory	2	2	7	School of Electrical Engineering

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							ing
	Electives 4 credits	Measurement Technique and Fault Diagnosis	Electives	2		6	School of Electrical Engineering
		Computer Control Systems	Electives	2		6	School of Electrical Engineering
		Wind Turbine and Photovoltaic Power Generation Systems	Electives	2		6	School of Electrical Engineering
		Modeling and Simulation of Power Electronics Systems	Electives	2		6	School of Electrical Engineering
Group IV Urban Rail Transit and Maglev Electrification	Compulsory 17 credits	Power Supply System for Urban Rail Transit	Compulsory	2	0.25	6	School of Electrical Engineering

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								ing
			Electromagnetic Suspension and Linear Drive	Compulsory	2	0.25	6	School of Electrical Engineering
			Traction Motor and Electric Appliance	Compulsory	2	0.25	6	School of Electrical Engineering
			Urban Rail Vehicles Traction Systems and Control Systems	Compulsory	2	0.25	6	School of Electrical Engineering
			Protection and Monitoring of Power Supply System for Urban Rail Transit	Compulsory	2	0.25	7	School of Electrical Engineering
			Urban Rail Train Network and Operation Control	Compulsory	2	0.25	7	School of Electrical Engineering

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								ing
		Computer Aided Motor Design and Experiments		Compulsory	2	2	6	School of Electrical Engineering
		Power Electronics and Electrical Drive Systems Design and Experiments		Compulsory	2	2	7	School of Electrical Engineering
		Design Project of Power Supply System for Urban Rail Transit	Choose one	Compulsory	1	1	7	School of Electrical Engineering
		Design Project of Maglev Suspension System		Compulsory	1	1	7	School of Electrical Engineering
	Electives 2 credits	Power Electronic Equipment and Its Control		Electives	2		6	School of Electrical Engineering

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
							ing	
		Calculation and Analysis of Engineering Electromagnetic Fields	Electives	2		6	School of Electrical Engineering	
		Measurement Technique and Fault Diagnosis	Electives	2		6	School of Electrical Engineering	
	Specialized experiment and Practice	Compulsory 8 credits	Electronic Market Research	Compulsory	1	1	1	School of Electrical Engineering
			Engineering Training A	Compulsory	2	2	1	Engineering Training Center
			Electronic Process Practice	Compulsory	2	2	2	School of Electrical Engineering
			Engineering Internship	Compulsory	3	3	3	School

Course Type			Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
				y				of Electrical Engineering
Graduation Dissertation		Compulsory 12 credits	Graduation Dissertation	Compulsory	12	12	8	School of Electrical Engineering
Innovation Practice		Compulsory 2 credits	Innovation Practice	Compulsory	2	2	2-7	School of Electrical Engineering