

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	4		1	School of Foreign Languages
			English II	Compulsory	2		2	School of Foreign Languages
		electives 4 credits	Academic English	Electives	2		3	School of Foreign Languages
			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

Course Type			Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
General Education Courses 41 credits			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. 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		1-4	
			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						

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
	Orientation	Compulsory	Freshman Seminar	Compulsory	2		1	School of Electrical Engineering
Basic Courses of the Discipline 87 credits	Computer	Compulsory 5.5 credits	University Computer Foundation A	Compulsory	1	0.5	1	School of Information Science
			Fundamentals of Computer Programming	Compulsory	3	0.5	2	School of Electrical Engineering
			Practice of Program Design	Compulsory	1.5	1.5	3	School of Electrical Engineering
	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
	Physics	Compulsory 10 credits	Fundamentals of Physics AI	Compulsory	4		2	School of Physics Science
			Fundamentals of Physics AII	Compulsory	4		3	School of Physics Science
			College Physics Experiments AI	Compulsory	1	1	2	School of Physics Science

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
		College Physics Experiments AII	Compulsory	1	1	3	School of Physics Science	
Basic Courses	Compulsory38credits	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	
		Compulsory3credits	Analogue Electronic Technology A	Compulsory	4		3	School of Information Science
			Analogue Electronic Technology B	Compulsory	3		3	School of Information Science
		Analogue Electronic Technology Experiments	Compulsory	1	1	3	School of Information Science	
		Compulsory3credits	Digital Electronic Technology A	Compulsory	4		4	School of Information Science
			Digital Electronic Technology B	Compulsory	3		4	School of Information Science

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
		Digital Electronic Technology Experiments	Compulsory	1	1	4	School of Information Science	
		Signals and Systems	Compulsory	3	0.25	4	School of Electrical Engineering	
		) Electronic Measurement Technology	Compulsory	3	0.5	4	School of Electrical Engineering	
		Principles of Micro-Computer	Compulsory	4	0.5	5	School of Electrical Engineering	
		Principles of Automatic Control	Compulsory	4	0.5	5	School of Electrical Engineering	
		Communication Theory	Compulsory	3	0.5	5	School of Electrical Engineering	
		Introduction to Electronic and Information Engineering	Compulsory	2		4	School of Electrical Engineering	
	Specialized basic course	Compulsory 14.5 credits	Digital Signal Processing	Compulsory	2.5	0.25	5	School of Electrical Engineering
			Information Theory and Coding	Compulsory	2		4	School of Electrical Engineering
			Computer Networks	Compulsory	3	0.5	6	School of Electrical Engineering
			Communication Circuits	Compulsory	2.5	0.5	6	School of

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
							Electrical Engineering
		Software Comprehensive Experiments	Compulsory	2	2	4	School of Electrical Engineering
		MCU System Comprehensive Experiments	Compulsory	2.5	2.5	6	School of Electrical Engineering
Specialty 30	Group I Electronic measurement and control technology	Sensors and Signal Detection Technology	Compulsory	2	0.5	6	School of Electrical Engineering
		Power Electronics	Compulsory	2	0.25	6	School of Electrical Engineering
		Fundamentals of Electrical Machinery	Compulsory	2	0.25	6	School of Electrical Engineering
		Computer Control Technology	Compulsory	2	0.25	6	School of Electrical Engineering
		Project Design of Electronic Equipment	Compulsory	2	2	7	School of Electrical Engineering
		Electronic and Information Engineering Practice	Compulsory	4	4	7	School of Electrical Engineering
	Electives 8 credits	Electronic Design Automation	Electives	2	0.5	5	School of Electrical Engineering
		Field Bus Control Systems and Train Control Networks	Electives	2	0.5	6	School of Electrical

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
credits							Engineering
		Principles and Applications of Programmable Logic Controllers	Electives	2	0.5	6	School of Electrical Engineering
		Robot Control	Electives	2	0.25	6	School of Electrical Engineering
		Intelligent Control	Electives	2		6	School of Electrical Engineering
		Basics of Modern Control Theory	Electives	2		6	School of Electrical Engineering
		Electromagnetic Fields and Waves	Electives	2		5	School of Electrical Engineering
		Electromagnetic Compatibility	Electives	2		6	School of Electrical Engineering
		Remote Supervisory and Control Technology	Electives	2	0.25	6	School of Electrical Engineering
		Object-Oriented Programming	Electives	2	0.5	6	School of Electrical Engineering
		Compulsory14credits	Operating System	Compulsory	2		6
Object-Oriented Programming	Compulsory		2	0.5	6	School of Electrical Engineering	

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department
	Group II Computer information processing	System Modeling and Simulation	Compulsory	2	0.5	6	School of Electrical Engineering
		Architecture of Railway Information Systems	Compulsory	2		6	School of Electrical Engineering
		Project Design of Information Processing Systems	Compulsory	2	2	7	School of Electrical Engineering
		Electronic and Information Engineering Practice	Compulsory	4	4	7	School of Electrical Engineering
	Electives 8 credits	Software Engineering	Electives	2		5	School of Electrical Engineering
		Digital Image Processing	Electives	2	0.5	5	School of Electrical Engineering
		Computer Graphics	Electives	2	0.25	6	School of Electrical Engineering
		Multimedia Technology	Electives	2	0.5	6	School of Electrical Engineering
		Principles and Applications of Databases	Electives	2	0.5	4	School of Electrical Engineering
		Information Security Engineering	Electives	2		6	School of Electrical Engineering
	Intelligent Control	Electives	2		6	School of	

Course Type		Course Name	Type of Courses	Total Credits	Practical Credits	Suggested Term	Teaching Department	
							Electrical Engineering	
		Automation of Railway Operation Control	Electives	2		6	School of Electrical Engineering	
		High-Speed Railway Maintenance Information Technology	Electives	2		6	School of Electrical Engineering	
		Railway Information Resource Management and Planning	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 of Electrical Engineering
Graduation Dissertation	Compulsory12credits	Graduation Dissertation	Compulsory	12	12	8	School of Electrical Engineering	
Innovation Practice	Compulsory2credits	Innovation Practice	Compulsory	2	2	2-7	School of Electrical Engineering	