

交通工程专业培养计划

Undergraduate Program of Traffic Engineering Training Scheme

I. 专业介绍 Introduction

交通工程专业培养富有创新精神和实践能力，具有坚实的基础知识，掌握必备的交通工程的基本理论和基本技能，能够在交通工程领域从事交通工程规划、交通工程设计、交通建设管理等方面工作的高级工程技术和科研人才。

Traffic engineering cultivates advanced engineering and scientific research talents with innovative spirit and practical ability, solid basic knowledge, essential basic theories and skills of traffic engineering, and the ability to engage in traffic engineering planning, traffic engineering design, traffic construction management and other aspects in the field of traffic engineering.

专业代码：081802

Program Code: 081802

专业名称：交通工程

Program Name: Traffic Engineering

II. 培养目标 Objectives

适应社会主义现代化建设和交通行业发展需要，德、智、体、美、劳全面发展；具有终身学习的信念、开阔的学术视野、理性的思维、系统的基础知识、综合交通的底蕴、全面的专业素养、创新精神与实践能力兼备；能够从事交通规划与设计、交通管理与控制、智能交通系统设计、交通发展政策等方面的技术、技术管理与研究开发工作。

Our students should meet the needs of the socialist modernization drive and the development of the transportation industry. They should develop morally, intellectually, physically and aesthetically in an all-round way; be equipped with lifelong learning belief, broad academic vision, rational thinking, systematic basic knowledge, comprehensive transportation background, comprehensive professional quality, innovative spirit and practical ability; be able to engage in traffic planning and design, traffic management and control, intelligent traffic system design, traffic development policy and other aspects of technology, technical management, research and development work.

III. 专业毕业要求 Graduation Requirements

毕业要求 1：要求学生具有较扎实的自然科学基本理论知识，旨在培育学生的基础素质和专业素养，学好基础科学，助力学生对于大学课程的掌握。

Requirement 1: The graduates should have a solid foundation of knowledge in natural science, which facilitate the further study of the disciplinary knowledge in traffic engineering.

毕业要求 2: 要求学生具有扎实的科学素养及人文社会科学基本理论知识, 一方面提升了学生的基础素质, 另一方面对于学生视野的开拓和良好的人格特质的养成具有极大的帮助, 同时, 对于交通运输领域的专业知识的学习也有帮助。

Requirement 2: The graduates should have a solid foundation of knowledge in social science and humanity, which expand the horizons, shapes the characters of the graduates.

毕业要求 3: 要求学生了解本专业相关的方针、政策、法律法规, 正确认识交通工程学科及其技术对客观世界及社会的影响。

Requirement 3: The graduates should understand the laws, policies and guidelines in traffic engineering discipline and have a macro view of the influences of transportation on the society.

毕业要求 4: 具备交通工程专门技术和设备的运用、操作能力, 以及设计和实施工程实验能力, 能够对实验结果进行分析。

Requirement 4: The graduates should have the ability to operate common equipment, design and conduct experiment and analyze the resulting data.

毕业要求 5: 要求学生具备人文社会科学素养、思想道德素质、文化素质、专业素质和身心素质, 具有一定的组织管理能力、表达能力和人际交往能力及在团队中发挥作用的能力。

Requirement 5: The graduates should have an all-round quality in ethics, humanities and disciplinary skills. They should also have the ability to organize, to express, to inter-personally communicate and to function effectively in a large organization.

毕业要求 6: 要求学生具备掌握基本的数学理论以及物理方法, 从而能探索创新方法, 具有综合运用理论和技术手段设计系统和过程的能力, 设计过程中能够综合考虑各种制约因素。

Requirement 6: The graduates should have a solid foundation of mathematics and physics so that they can master the theoretical knowledge and practical skills in design effective systems and processes, considering the complex constraints in real-world situations.

毕业要求 7: 要求学生具有扎实的专业基础知识和基本理论, 旨在培植学生的专业素

养，以便学生能在毕业后从事相关领域时得心应手，形成核心竞争力。

Requirement 7: The graduates should have a solid grasp on disciplinary knowledge and skills so that they can function as professionals in the work.

毕业要求 8: 要求学生了解学科前沿发展现状和趋势，掌握学科动态。

Requirement 8: The graduate should be exposed to the frontier and develop trend of traffic engineering.

毕业要求 9: 要求学生强化专业素养、有强大的专业基础体系，求学生具有进行交通工程设计和管理的初步能力以及研究和应用开发的创新能力。此举旨在强化学生的专业素养，在经济全球化的浪潮下，能更系统和有针对性的进行交通运输专业学术研究。

Requirement 9: In addition to a solid knowledge base in disciplinary skills, the graduates should have the ability to innovate in system designing, project managing, researching and developing, which prepare the graduates to face the challenges of globalization.

毕业要求 10: 具备掌握一定的外语能力和阅读思维能力，在经济全球化的浪潮下语言阅读与理解的能力，既能加强学生的基础素质，培养学生严谨的求知态度，也能进一步加深学生的专业素养。

Requirement 10: The graduates should have the basic ability to read, write and communicate in foreign languages, which helps the graduates to expand the horizon in a globalized society.

毕业要求 11: 要求学生在全球化的氛围下，必须掌握一定的外语和自主学习能力，交通运输专业在学术研究和工程应用领域与国外高校和机构的联系越来越紧密，语言作为交流最为直接的工具，因此外语能力的重要性逐步凸显出来。信息技术的发展普及让网上资源愈发丰富，良好的计算机能力可使学生在工作学习中获益匪浅。

Requirement 11: The graduates should have the ability to learn in a globalized environment. They should have the ability to communicative in foreign languages in academic settings with foreign universities and institutes. They should also have the ability to learn though the Internet and other information technologies.

毕业要求 12: 要求学生学会工程项目管理，养成终身学习的意识，这就要求学生要具有较好的专业素养及人格特质，学无止境，唯有具有自主学习和终身学习的意识，才能持续学习新的工程相关知识，以随时更新及提升自己的能力，维持其在职场上的竞争力。

Requirement 12: The graduate should have the ability to manage and conduct complex engineering projects. This requires the graduates to have the awareness of lifelong learning, which allow them to learn and improve constantly even after their graduation.

毕业要求 13: 单纯的掌握交通工程设计和管理的初步能力并不能使学生永处于竞争中的优势地位,要求学生正确认识工程实践对社会和环境及可持续发展的影响力,这对于学生的专业素养及战略眼光的养成有着建设性的效果。

Requirement 13: In addition to the ability of design and management of traffic system, the graduates should have a broad view on the effect of traffic engineering on society, environment and sustainable development.

毕业要求 14: 要求学生具有综合运用理论和技术手段设计系统和过程的能力,才有核心竞争力。

Requirement 14: The graduates should have the ability to design transport system and process based on the theories and technologies in traffic engineering.

毕业要求 15: 唯有培育学生的自主学习能力和创新能力,才能保证学生在今后的工作中不断钻研进取,克服困难,做好工程,服务民生。自主学习的能力养成有助于学生的宏观视野的建立和人格特质的养成。

Requirement 15: The graduates should have the ability of self learning and innovating. It helps the graduates grow and develop further in their professional careers. It also helps the graduates to expand horizon and build characters.

毕业要求 16: 要求学生注重工程实践,使学生在面对复杂工程问题时能够掌握其重点与影响因子,分析其发生的原因,评估及提出可能的解决方案,适当改善缺点、降低成本或增加效率,使工程系统更加完善。也对项目工程养成负责任的态度极有帮助。

Requirement 16: The graduates should have the ability to focus on the practical aspects of engineering problems. This ability help graduates find the major factors when facing complex engineering problem, analyze the cause, develop and evaluate solutions of improved efficiency and reduced costs. It also helps the graduates to be more responsible with their duties.

IV.学制与学位 Duration and Degree

学制: 4 年

Duration: 4 years

学位: 工学学士

Degree: Bachelor of Engineering

V.主干学科与主干课程 Main Subject and Main Course

主干学科：交通运输规划与管理

Main Subject: Transportation Planning and Management

主干课程：

(1) 学科基础：高等数学、计算机程序设计基础、大学物理、工程力学、运筹学、交通工程学。

(2) 专业基础：城市规划原理、交通运输系统分析、道路工程、交通地理信息系统。

(3) 专业课程：交通规划原理、交通管理与控制、交通设计、交通系统仿真、交通工程专业外语、智能交通系统、课程设计、实习及毕业设计等实践教学环节。

Main Courses:

Discipline Courses: Higher Mathematics, Fundamentals of Computer Programming, College Physics, Engineering Mechanics, Operation Research, Transportation Engineering.

(2) Specialty Foundational Courses: Urban Planning Theory, Transportation System Analysis, Road Engineering, Traffic Geographic Information System.

(3) Specialized Courses: Transportation Planning, Traffic Management and Control, Traffic Design, Transportation System Simulation, Professional English in Transportation Engineering, Intelligent Transportation System, Curriculum Design, Practice and Graduation Design, etc.

VI.毕业学分基本要求 Basic Requirements of Credits for Graduation

课程体系 Curriculum System		学分要求 Credits Requirements						
		必修 Compulsory		限修 Distributional Electives		选修 Free Electives		小计 Subtotal
		理论 Theory	实践 Practice	理论 Theory	实践 Practice	理论 Theory	实践 Practice	
公共基础课程 Public Basic Courses	思想政治类 Ideological Politics Courses	14	2					16
	军事类 Military Courses	2	2					4
	外语类 Foreign Language Courses	6		2				8
	体育类 Physical Education Courses		4					4
通识教育课程 General Education Courses	核心通识课 Core General Education Courses			4				4
	新生研讨课 Freshman Seminar	2						2

学科与专业基础课程（含实验） Discipline and Specialty Foundational Courses(Including Experiments)	数学与自然科学基础课 Foundational Courses on Mathematics and Natural Science	40	5	2				47
	专业基础课 Professional Foundational Courses	19	1	4				24
专业课程（含实验） Specialized Courses(Including Experiments)	专业核心课程 Specialized Core Course	16						16
	专业限修课程 Specialized Restricted Courses			5.5	0.5			6
实习实践教学 Practice Courses	基本技能训练、实训、综合课程设计、社会与文化素质实践、毕业实习与毕业设计 Basic Skills Training, Practical Training, Integrated Curriculum Design, Social and Cultural Quality Practice, Graduation Internship and Graduation Design		19					19
多元化课程 Diversified Courses	跨学科课程、美育专业类课程、学科竞赛类课程、其它个性化选修课程等 Interdisciplinary Courses, Aesthetic Education Courses, Subject Competition Courses, other Personalized Elective Courses, etc			4				4
创新创业实践 Innovation and Entrepreneurship Practice	创新创业训练计划项目、个性化实验、学科竞赛、创新讲座等 Innovation and Entrepreneurship Training Program, Personalized Experiments, Subject Competition, Innovation Lectures				2			2
必修环节 A Compulsory Part	大学生综合素质提升、学生体质达标测评 Comprehensive Quality Improvement Courses for College Students, Assessment of Students' Physical Fitness							0
总计 Total								156

VII.课程设置细化表 Course Programs Table

公共基础课程 Public Basic Courses 共 32 学分，其中必修 30 学分，限修 2 学分，选修 0 学分 A total credits of 32, including 30 for compulsory courses, 2 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class Practice Credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes
思想政治类 Ideological Politics Courses	思想道德修养与法律基础 The Ideological and Moral Cultivation and Legal Basis	必修 Compulsory	3	0.4	第 1 学期 1St Semester	马克思主义学院 School of Marxism	2、5	
	中国近现代史纲要 Conspectus of Chinese Modern History	必修 Compulsory	3	0.4	第 2 学期 2Nd Semester	马克思主义学院 School of Marxism	2、5	
	马克思主义基本原理 The Basic Principles of Marxism	必修 Compulsory	3	0.4	第 3 学期 3Rd Semester	马克思主义学院 School of Marxism	2、5、15	
	毛泽东思想和中国特色社会主义理论体系概论 I Introduction to Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics I	必修 Compulsory	3	0.4	第 5 学期 5Th Semester	马克思主义学院 School of Marxism	2、5	
	毛泽东思想和中国特色社会主义理论体系概论 II Introduction to Mao Zedong Thought and theoretical System of Socialism with Chinese Characteristics II	必修 Compulsory	2	0.4	第 6 学期 6Th Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 I Situation and Policy I	必修 Compulsory	0	0	第 1 学期 1St Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 II Situation and Policy II	必修 Compulsory	0	0	第 2 学期 2Nd Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 III Situation and Policy III	必修 Compulsory	0	0	第 3 学期 3Rd Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 IV Situation and Policy IV	必修 Compulsory	0	0	第 4 学期 4Th Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 V Situation and Policy V	必修 Compulsory	0	0	第 5 学期 5Th Semester	马克思主义学院 School of Marxism	2、5	

思想政治类 Ideological Politics Courses	形势与政策 VI Situation and Policy VI	必修 Compulsory	0	0	第 6 学期 6Th Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 VII Situation and Policy VII	必修 Compulsory	0	0	第 7 学期 7Th Semester	马克思主义学院 School of Marxism	2、5	
	形势与政策 VIII Situation and Policy VIII	必修 Compulsory	2	0	第 8 学期 8Th Semester	马克思主义学院 School of Marxism	2、5	
军事类 Military Courses	军事理论 Military Theories	必修 Compulsory	2	0	第 1 学期 1St Semester	武装部 Security Office	2、15	
	军事技能 Military Skills	必修 Compulsory	2	2	短 1 学期 Short Semester 1	武装部 Security Office	2、15	
外语类 Foreign Language Courses	英语 I College English I	必修 Compulsory	2	0	第 1 学期 1St Semester	外国语学院 School of Foreign languages	5、8、10	
	英语 II College English II	必修 Compulsory	2	0	第 2 学期 2Nd Semester	外国语学院 School of Foreign languages	5、8、10	
	通用学术英语 English for General Academic Purposes	必修 Compulsory	2	0	第 3 学期 3Rd Semester	外国语学院 School of Foreign languages	8、10	
	语言、文化与翻译 Language, Culture and Translation	限修 Distributional Elective	2	0	第 4 学期 4Th Semester	外国语学院 School of Foreign languages	8、10	限选 1 门, 2 学分 Limited to 1 course, 2 credits
	英语公共演讲 Public Speaking in English		2	0	第 4 学期 4Th Semester	外国语学院 School of Foreign languages	8、10	
	职场英语 Workplace English		2	0	第 4 学期 4Th Semester	外国语学院 School of Foreign languages	8、10、11	
	交际与文化视听说 Viewing, Listening & Speaking in English --Communication & Culture		2	0	第 4 学期 4Th Semester	外国语学院 School of Foreign languages	8、10、11	
体育类 Physical Education Courses	体育 I Physical Education I	必修 Compulsory	1	1	第 1 学期 1St Semester	体育部 Dept. of Physical Education	5	
	体育 II Physical Education II	必修 Compulsory	1	1	第 2 学期 2Nd Semester	体育部 Dept. of Physical Education	5	
	体育 III Physical Education III	必修 Compulsory	0.5	0.5	第 3 学期 3Rd Semester	体育部 Dept. of Physical Education	5	
	体育 IV Physical Education IV	必修 Compulsory	0.5	0.5	第 4 学期 4Th Semester	体育部 Dept. of Physical Education	5	

体育类 Physical Education Courses	体育健康课程 I Diversified Physical Education Courses I	必修 Compulsory	0.5	0.5	第 5 学期 5Th Semester	体育部 Dept. of Physical Education	5	
	体育健康课程 II Diversified Physical Education Courses II	必修 Compulsory	0.5	0.5	第 6 学期 6Th Semester	体育部 Dept. of Physical Education	5	
通识教育课程 General Education Courses 共 6 学分, 其中必修 2 学分, 限修 4 学分, 选修 0 学分 A total credits of 6, including 2 for compulsory courses, 4 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes
新生研讨课 Freshman Seminar	交通运输导论 Introduction to Transportation	必修 Compulsory	2		第 1 学期 1Nd Semester	交通运输与物流学院 School of transportation and logistics	1、2、5	
核心通识课 Core General Education	“交通天下”通识课程 General Studies on Transportation	限修 Distributional Elective	4		第 2-8 学期 2-8 Semester	全校 The whole school	1、2、5	限修 4 学分 Distributional 1 Elective 4 credits
学科与专业基础课程 (含实验) Discipline and Specialty Foundational Courses(Including Experiments) 共 71 学分, 其中必修 65 学分, 限修 6 学分, 选修 0 学分 A total credits of 71, including 65 for compulsory courses, 6 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes
数学与自然科学 基础课 Foundational Courses on Mathematics and Natural Science	高等数学 I Higher Mathematics I	必修 Compulsory	5	0	第 1 学期 1St Semester	数学学院 School of mathematics	1、6、15	
	高等数学 II Higher Mathematics II	必修 Compulsory	5	0	第 2 学期 2Nd Semester	数学学院 School of mathematics	1、6、15	
	线性代数 B Linear Algebra B	必修 Compulsory	3	0	第 1 学期 1St Semester	数学学院 School of mathematics	1、6、15	
	概率论与数理统计 Probability and Mathematics Statistics	必修 Compulsory	3	0	第 3 学期 3Rd Semester	数学学院 School of mathematics	1、6、15	
	数值计算 Numerical Calculation	限修 Distributional Elective	2	0	第 2 学期 2Nd Semester	数学学院 School of mathematics	1、6、15	限修 2 学分 Distributional 1 Elective 2 credits
	数学建模 C Mathematical Modeling C		2	0	第 2 学期 2Nd Semester	数学学院 School of mathematics	1、6、15	
	计算机程序设计基础 Fundamentals of Computer Programming	必修 Compulsory	3	1	第 2 学期 2Nd Semester	信息科学与技术学院 School of Informatics	7、14、15	
	大学物理 BI College Physics BI	必修 Compulsory	3	0	第 2 学期 2Nd Semester	物理科学与技术学院 School of physics	1、2、6、15	

数学与自然科学基础课 Foundational Courses on Mathematics and Natural Science	大学物理 BII College Physics BII	必修 Compulsory	3	0	第 3 学期 3Rd Semester	物理科学与技术学院 School of physics	1、2、6、15	
	大学物理实验 I Experiments in College Physics I	必修 Compulsory	1	1	第 2 学期 2Nd Semester	物理科学与技术学院 School of physics	1、2、6、15	
	大学物理实验 II Experiments in College Physics II	必修 Compulsory	1	1	第 3 学期 3Rd Semester	物理科学与技术学院 School of physics	1、2、6、15	
	工程测量 B Engineering Measurement B	必修 Compulsory	3	1	第 2 学期 2Nd Semester	地球科学与环境工程学院 Faculty of Geosciences and Environmental Engineering	4	
	画法几何及工程制图 B Descriptive Geometry and Mechanical Drawing B	必修 Compulsory	2	0	第 3 学期 3Rd Semester	土木工程学院 School of Civil Engineering	4	
	工程力学 D Engineering Mechanics D	必修 Compulsory	2	0	第 3 学期 3Rd Semester	力学与工程学院 School of Mechanics and Engineering	1、15	
	数据库技术及应用 B Database Management System B	必修 Compulsory	2	0	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	7、14	
	交通工程学 Transportation Engineering	必修 Compulsory	2	0	第 4 学期 4Th Semester	交通运输与物流学院 School of transportation and logistics	7、9、10	
	预测与决策方法 Forecasting and Decision-making Method	必修 Compulsory	2	0	第 3 学期 3Rd Semester	交通运输与物流学院 School of transportation and logistics	1、2、4、6、12、16	
	运筹学 Operation Research	必修 Compulsory	4	0	第 4 学期 4Th Semester	交通运输与物流学院 School of transportation and logistics	4、5、6、11、15	
	运筹学实验 A Operational Research Experiments A	必修 Compulsory	1	1	第 4 学期 4Th Semester	交通运输与物流学院 School of transportation and logistics	1、4、6、16	
专业基础课 Professional Foundational Courses	道路工程 Road Engineering	必修 Compulsory	3	0	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	4、7、14、16	
	交通运输系统分析 Transportation System Analysis	必修 Compulsory	2	0	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	7、9	

专业基础课 Professional Foundational Courses	城市规划原理 Urban Planning Theory	必修 Compulsory	2	0	第 4 学期 4Th Semester	交通运输与物 流学院 School of transportation and logistics	2、3、9、16	
	城市公共交通系统 Urban Public Transport Planning	必修 Compulsory	2	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	2、3、4、5、6、 7、9、13、15	
	交通运输经济 Transportation Economics	必修 Compulsory	2	0	第 4 学期 4Th Semester	交通运输与物 流学院 School of transportation and logistics	8、9、12、15	
	交通地理信息系统 Traffic Geographic Information System	必修 Compulsory	2	0.5	第 5 学期 5Th Semester	交通运输与物 流学院 School of transportation and logistics	2、4、5、6、7、 8、9、10、11、 14	
	交通流理论基础 Fundamental Traffic Flow Theory	必修 Compulsory	2	0	第 5 学期 5Th Semester	交通运输与物 流学院 School of transportation and logistics	1、4、5、6、16	
	交通数据分析 Traffic Data Analysis	必修 Compulsory	3	0.5	第 4 学期 4Th Semester	交通运输与物 流学院 School of transportation and logistics	4、6、9、11、 14	
	数据结构 Data Structure	必修 Compulsory	2	0	第 5 学期 5Th Semester	交通运输与物 流学院 School of transportation and logistics	4、7、16	
	工程地质 Engineering Geology	限修 Distributional Elective	2	0	第 5 学期 5Th Semester	地球科学与环 境工程学院 Faculty of Geosciences and Environmental Engineering	4、7、16	限修 4 学分 Distributional Elective 4 credits
	通讯原理 Communication Principles		2	0	第 4 学期 4Th Semester	交通运输与物 流学院 School of transportation and logistics	4、7、16	
	管理学原理 B Principles of Management Science B		2	0	第 3 学期 3Rd Semester	交通运输与物 流学院 School of transportation and logistics	8、9、12、15	
专业课程（含实验） Specialized Courses(Including Experiments) 共 22 学分，其中必修 16 学分，限修 6 学分，选修 0 学分 A total credits of 22, including 16 for compulsory courses, 6 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实 践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes

专业核心课程 Specialized Core Course	交通规划原理 Transportation Planning	必修 Compulsory	2	0	第 5 学期 5Th Semester	交通运输与物 流学院 School of transportation and logistics	4、5、7、9、11、 15	
	交通管理与控制 A Transportation Management and Control A	必修 Compulsory	2	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	3、7、9	
	交通设计 Traffic Design	必修 Compulsory	3	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	4、6、9、13、 14、16	
	交通运输法规 Transportation Laws	必修 Compulsory	2	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	2、3、5、13、 15	
	交通系统仿真 Transportation System Simulation	必修 Compulsory	2	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	4、7	
	智能交通系统 Intelligent Transportation System	必修 Compulsory	2	0	第 6 学期 6Th Semester	交通运输与物 流学院 School of transportation and logistics	3、13、15	
	交通工程专业英语 Professional English in Transportation Engineering	必修 Compulsory	2	0	第 7 学期 7Th Semester	交通运输与物 流学院 School of transportation and logistics	8、10、11、15	
	高年级专业研讨课 High Grade Professional Seminar	必修 Compulsory	1	0	第 7 学期 7Th Semester	交通运输与物 流学院 School of transportation and logistics	2、8、10、11	
专业限修课程 Specialized Restricted Courses	交通场站与枢纽 Transport Station and Hub	限修 Distributional Elective	2	0.5	第 7 学期 7Th Semester	交通运输与物 流学院 School of transportation and logistics	4、9	限修 6 学分 Distributional Elective 6 credits
	自动控制原理 Automatic Control Principle		2	0	第 5 学期 5Th Semester	电气学院 School of Elect rical Engineering	3、13、15	
	交通安全 Traffic Safety		2	0	第 7 学期 7Th Semester	交通运输与物 流学院 School of transportation and logistics	3、5	
	物流学 Logistics		2	0	第 4 学期 4Th Semester	交通运输与物 流学院 School of transportation and logistics	1、2、5、7、11、 15	
实习实践教学 Practice Course 共 19 学分，其中必修 19 学分，限修 0 学分，选修 0 学分 A total credits of 19, including 19 for compulsory courses, 0 for distributional electives and 0 for free electives								

课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes
基本技能训练、实习实训、综合课程设计、社会与文化素质实践、毕业实习与毕业设计 Basic Skills Training, Practical Training, Integrated Curriculum Design, Social and Cultural Quality Practice, Graduation Internship and Graduation Design	交通规划实验 Transportation Planning Experiment	必修 Compulsory	1	1	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	4、6	
	交通管理与控制实验 A Transportation Management and Control Experiment A	必修 Compulsory	1	1	第 6 学期 6Th Semester	交通运输与物流学院 School of transportation and logistics	3、4、7、9	
	交通系统仿真实验 Transportation System Simulation Experiment	必修 Compulsory	1	1	第 6 学期 6Th Semester	交通运输与物流学院 School of transportation and logistics	4、7	
	交通设计课程实践 Traffic Design Experiment	必修 Compulsory	1	1	第 6 学期 6Th Semester	交通运输与物流学院 School of transportation and logistics	3、4、7	
	道路工程课程设计 Road Engineering Course Exercise	必修 Compulsory	2	2	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	6、7、13、15	
	交通数据分析与决策实践 Traffic Data analysis and Decision-making Exercise	必修 Compulsory	1	1	第 7 学期 7Th Semester	交通运输与物流学院 School of transportation and logistics	6、7、15	
	认识实习（交通） Cognition Practice (Traffic)	必修 Compulsory	2	2	短 2 学期 Short Semester 2	交通运输与物流学院 School of transportation and logistics	3、5、12	
	专业实习 Professional Practice	必修 Compulsory	2	2	短 3 学期 Short Semester 3	交通运输与物流学院 School of transportation and logistics	9、12、15	
	毕业实习与毕业设计（论文） Graduation Practice and Graduation Design (Thesis)	必修 Compulsory	8	8	第 8 学期 8Th Semester	交通运输与物流学院 School of transportation and logistics	8、15、16	
<p style="text-align: center;">多元化课程 Diversified course 共 4 学分，其中必修 0 学分，限修 4 学分，选修 0 学分 A total credits of 4, including 0 for compulsory courses, 4 for distributional electives and 0 for free electives</p>								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes

跨学科课程 Interdisciplinary Course	凸优化理论与交通网络分析 Convex optimization and transport network analysis	限修 Distributional Elective	2	0	第 7 学期 7Th Semester	交通运输与物流学院 School of transportation and logistics	1、6、7、8、9、14、15、16	限修 4 学分 Distributional Elective 4 credits
	自动驾驶交通技术 Autonomous Vehicle Technique		2	0	第 6 学期 6Th Semester	交通运输与物流学院 School of transportation and logistics	1、2、4、6、7、9、10、13、15	
	学科竞赛类课程 Subject Competition Course		科创实践指导 Practical Guidance of Scientific and Technological Innovation	2	0	第 5 学期 5Th Semester	交通运输与物流学院 School of transportation and logistics	
创新创业实践 Innovation and Entrepreneurship Practice 共 2 学分，其中必修 0 学分，限修 2 学分，选修 0 学分 A total credits of 2, including 0 for compulsory courses, 2 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求 指标点 Indicators which Support Graduation Requirements	备注 Notes
创新创业训练计划项目、个性化实验、学科竞赛、创新讲座等 Innovation and Entrepreneurship Training Program, Personalized Experiments, Subject Competition, Innovation Lectures, etc	创新创业训练计划项目 Innovation and Entrepreneurship Training Program	限修 Distributional Elective	2	2	第 3-7 学期 3-7 Semester	交通运输与物流学院 School of transportation and logistics	9、11	主持或参与结题至少 1 项 Leading or participation at least one project conclusion
	个性化实验 Individual Experiment						9、11	主持或参与结题至少 1 项 Leading or participation at least one project conclusion
	重点实验室向本科生开放工程实践项目 Engineering Practice Projects of Key laboratories Opening to Undergraduates						9	主持或参与结题至少 1 项 Leading or participation at least one project conclusion
	交通科技大赛 National Competition of Transport Science and Technology for Students						9	获校级一等奖或省部级及以上竞赛三等奖及以上 Winning the first prize at this university or the third prize at the provincial level or above

创新创业训练计划项目、个性化实验、学科竞赛、创新讲座等 Innovation and Entrepreneurship Training Program, Personalized Experiments, Subject Competition, Innovation Lectures, etc	创新讲座 Innovative lectures						2、3、4	听全校至少10个科技讲座，本院不少于5个，提交科技报告1份 Listening to at least 10 lectures of science and technology and at least 5 in this school, submitting a report of science and technology
必修环节 A compulsory part 共0学分，其中必修0学分，限修0学分，选修0学分 A total credits of 0, including 0 for compulsory courses, 0 for distributional electives and 0 for free electives								
课程类型 Course Type	课程名称 Course Name	课程性质 Nature of Course	总学分 Credits	课内实践学分 In-class practice credits	开课学期 Semester	开课学院 School	支撑毕业要求指标点 Indicators which Support Graduation Requirements	备注 Notes
大学生综合素质提升、学生体质达标测评 Comprehensive Quality Improvement Courses for College Students, Assessment of Students' Physical Fitness	大学生综合素质提升（第二、第三课堂） Comprehensive Quality Improvement Courses for College Students (The Second and Third Classroom)	必修 Compulsory	0	0	第1-8学期 1-8 Semester	校团委 Communist Youth League Committee	2、5	
	学生体质达标测评 Assessment of Students' Physical Fitness	必修 Compulsory	0	0	秋季学期 fall Semester	体育部 Dept. of Physical Education	1、2、5	
学分总计 Total Credits			156					