

# 交通运输专业培养方案

## Undergraduate Program of Transportation Major

### I. 专业介绍 Introduction

交通运输专业是西南交通大学轨道交通办学特色的重要支撑，长期坚持党的教育方针和社会主义办学方向，主动适应国家经济发展和交通运输行业重大需求，坚持“立德树人”和“宽厚基础、通精结合、强化实践、突出创新、特色鲜明”的专业人才培养理念，以培养具有“基础厚、素质高、能力强、后劲足”的交通运输系统规划设计、运营管理和科学研究的创新性复合型人才为目标，使交通运输专业建设水平和本科人才培养质量持续保持国际一流和国内领先。

交通运输专业历史悠久，1937年在唐山铁道学院建立了铁道管理系。由于历史原因专业发展几经中断，1956年恢复建立铁道运输专业，1998年更名为交通运输专业，2009年增设了城市轨道交通方向。目前，专业设有铁路运输和城市轨道交通两个方向。

专业依托全国排名第一的交通运输工程国家重点一级学科，建成了拥有国家教学名师、国家教学团队、国家特色专业、国家实验教学示范中心等多层次、立体化、全方位的国家级优质教学资源，

“十位一体”的交通运输专业人才培养高地，形成了以工为主、多学科交叉和创新性复合型人才的专业特色。

Transportation major is significant support of Southwest Jiaotong University's rail transit characteristics and adherence to the Nation's education policy and the socialist direction of running in the long-term. Associate with the foresight of national economy and transportation industry development, we adhere to foster students' virtue through education and to the professional training concepts of "Foundation, Integration, Practice, Innovation, Characteristic". With goals of innovative interdisciplinary education, we are training "knowledgeable, high quality, skillful and persistent" talents in fields of transportation system planning, design, operation management, and scientific research. The influence and quality of bachelor education of our major maintain a domestic leading position and first-class internationally.

The history of transportation major can be traced to the founding in 1937 of the department of railway management in TangShan Railway College. The development of this major has been interrupted for several times as the historical reasons. In 1956, the railway transportation major was resumed. In 1998, it was renamed as the transportation major. In 2009, the urban rail transit direction was added. As a result, there are two directions of the transportation major currently, including railway transportation and urban rail transit.

On the basis of on the national key first-class discipline of transportation engineering which is ranked first in domestic, transportation major possesses multi-level, three-dimensional, all-round teaching resources, such as the national reputation teachers, teaching team, the national characteristic major, and national experimental teaching demonstration center. This major occupies the "ten in one" integrated transportation highlands of talent cultivation, and formed

mainly work, multidisciplinary cross and innovative talents training of professional characteristic.

专业代码: 081801

Program Code: 081801

专业名称: 交通运输

Program Name: Transportation

## II. 培养目标 Objectives

坚持立德树人, 培养主动适应新时代中国特色社会主义现代化建设和交通运输发展需要, 德、智、体、美、劳全面发展, 具有突出的科学文化素养和创新意识, 深厚的人文底蕴, 健全的人格和健康身心, 良好的社会责任感和职业道德素质, 较高的综合运输系统思想和广阔的国际化视野, 较强的沟通能力、文化包容能力、团队合作和终身学习能力, 掌握扎实的数学、自然科学和工程知识, 系统的轨道交通专业知识和技能, 能够在交通运输特别是铁路运输和城市轨道交通领域从事规划设计、工程实施、运营管理、科学研究等工作的创新性复合型人才, 毕业后 5 年能够成为所在岗位或团队的技术、管理骨干, 具备胜任工程师或相应职称的能力。

This undergraduate program is designed to foster students' virtue through education and adapt to the needs of socialist modernization and transportation development in the new era. It emphasizes the comprehensive development of students in moral, intelligence, sports, aesthetics and labor education, as well as outstanding scientific, cultural accomplishments and innovative consciousness, profound humanistic heritage, sound personality and health, good sense of social responsibility and professional ethics, high comprehensive transportation system thinking and broad international vision. The students in this program are equipped with strong skills of communication, cultural tolerance, teamwork, and lifelong learning, and master solid mathematics, natural science, and engineering knowledge, systematic rail transit expertise and skills. Students are furnished with the ability to engage in innovative composite talents in planning, engineering implementation, operations management, scientific research and other essential qualities in transportation, especially in rail transport and urban rail transit. After the next 5 years after graduation, students ought to become the technical and management backbone of the position or team, and have the ability to be competent engineers or corresponding titles.

## III. 专业毕业要求 Requirements

**毕业要求 1 思想健康:** 热爱祖国, 充分理解马克思主义毛泽东思想, 中国特色社会主义理论, 坚持社会主义核心价值观, 具有科学的世界观、坚定的政治立场, 具备为国家富强、行业发展而奋斗的志向和社会责任感, 具有良好的社会公德和法律意识, 主动适应新时代中国特色社会主义现代化建设和交通运输行业发展需求。

**Requirements 1 Ideologically Healthy:** Loving the motherland, fully understanding Marxism, Mao Zedong Thought and the theory of socialism with Chinese characteristics.

Adhering to the socialist core values and having a scientific world outlook and a firm political stand. Having a sense of social responsibility and ambition to strive for national prosperity and industrial development. Having a good sense of social morality and law, and actively adapts to the needs of socialist modernization construction and the development of transportation industry in the new era.

**毕业要求 2 工程知识：**能够将数学、自然科学、专业理论基础和技术知识用于解决交通运输领域的规划设计、运输组织等复杂工程问题。

**Requirements 2 Engineering Knowledge:** Ability to apply mathematics, natural science, professional theoretical basis and technical knowledge to solve the complex engineering problems in the field of transportation, such as planning, design and transportation organization.

**毕业要求 3 问题分析：**能够应用数学、自然科学和交通运输工程学科的基本原理识别、表达交通运输规划设计、运输组织等问题，并通过文献研究对具体的交通运输复杂工程问题进行分析，以获得有效结论。

**Requirements 3 Problem Analysis:** Ability to apply basic principles of mathematics, natural sciences, and transportation engineering disciplines to identify and describe the transportation planning and design, transportation organization and other problems. And based on the literature research, analyzing the specific traffic complex engineering problems, and acquiring an effective conclusion.

**毕业要求 4 设计/开发解决方案：**能够针对交通运输专业领域复杂工程问题，设计满足特定行车、客运、货运要求和流程的解决方案，并能在设计过程中考虑社会、健康、安全、法律、文化以及环境等因素，体现创新意识。

**Requirements 4 The Designing/Developing Solutions:** Ability to formulate solutions to meet specific railway train operation, passenger and cargo transport requirements and processes for the complex engineering problems in the field of transportation. And considering the social, health, safety, legal, cultural and environmental factors during the design process, to reflect the innovative consciousness.

**毕业要求 5 研究：**能够基于科学原理并采用科学方法对交通运输复杂工程问题进行研究，包括设计实验、分析与解释数据、并通过信息综合得到合理有效的结论。

**Requirements 5 Researching:** Ability to implement the scientific principles and methods to research the complex engineering problems in the field of transportation, including designing experiments, analyzing and interpreting data, and obtaining reasonable and effective conclusions through information synthesis.

**毕业要求 6 使用现代工具：**能够针对交通运输复杂工程问题，开发、选择与使用恰当

的技术、资源、现代工程工具和信息技术工具，包括对复杂工程问题的预测与模拟，并能够理解其局限性。

**Requirements6** The use of modern tools: Ability to develop, select and apply appropriate technologies, resources, modern engineering tools and information technology tools for the complex engineering problems in the field of transportation, including the prediction and simulation of complex engineering problems, and awareness of their limitations.

**毕业要求 7 工程与社会：**能够基于交通运输专业相关背景知识进行合理分析，评价专业工程实践和复杂工程问题解决方案对社会、健康、安全、法律以及文化的影响，并理解应承担的责任。

**Requirements7 Engineering and Society:** Ability to conduct reasonable analysis based on relevant background knowledge of transportation major, evaluate the impact of professional engineering practice and complex engineering problem solutions on society, health, safety, law and culture, and understanding of the corresponding responsibilities.

**毕业要求 8 环境和可持续发展：**能够理解和评价针对交通运输工程领域中复杂工程问题的专业工程实践对环境、社会可持续发展的影响。

**Requirements8 Environment and Sustainable Development:** Ability to understand and evaluate the impact of the professional engineering practices of complex engineering problems in the field of transportation engineering on environmental and social sustainability.

**毕业要求 9 职业规范：**具有人文社会科学素养、社会责任感、能够在交通运输相关问题实践中理解并遵守工程职业道德和规范，履行责任。

**Requirements9 Professional Norms:** Possessing humanistic and social science literacy and social responsibility, and the ability to understand and abide by engineering professional ethics and norms in the practice of transportation problems, and fulfil responsibilities.

**毕业要求 10 个人和团队：**能够在多学科背景下团队中承担个体、团队成员以及负责人的角色。

**Requirements 10 Individuals and Teams:** Ability to participate in the roles of the individual, team member and leader in a multi-disciplinary team.

**毕业要求 11 沟通：**能够就交通运输规划设计、行车组织、客运货运等领域中复杂工程问题与业界同行及社会公众进行有效沟通和交流，包括撰写报告和设计文稿、陈述发言、清晰表达或回应指令。并具备一定国际视野，能够在跨文化背景下进行沟通和交流。

**Requirements 11 Communication:** Ability to communicate effectively with transportation industry peers and the public on the complex engineering problems in the field of transportation planning and designing, railway train operation, passenger transport, and freight transport,

including writing reports and designing documents, making statements, expressing or responding to instructions clearly. And the ability to communicate in a cross-cultural context with a certain international perspective.

**毕业要求 12 项目管理:** 理解并掌握交通运输行业的管理原理与经济决策方法, 并能在多学科环境中应用。

**Requirements 12 Project Management:** Understanding and mastering the management principles and economic decision-making methods of the transportation industry, and applying in a multidisciplinary environment.

**毕业要求 13 终身学习:** 具有自主学习和终生学习的意识, 有不断学习和适应发展的能力。

**Requirements 13 Lifelong Learning:** Possessing the consciousness of independent learning and lifelong learning, and owning the ability of continuous learning and adapting to the development

#### IV. 学制与学位 Duration and Degree

学制: 四年

Duration: Four 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: Main Course:**

(1) 通识课程 General Education Courses

社会主义理论体系概论、形势与政策、英语、体育、交通运输导论、社会科学与伦理

Introduction Theoretical System of Socialism, Situation and Policy, College English, Physical Education, Introduction to Traffic and Transportation, Social Science and Ethical Responsibility

(2) 学科基础课程 Discipline Foundation Courses

高等数学、线性代数、概率与数理统计、计算机程序设计基础、大学物理、工程测量 B、画法几何及工程制图、工程力学 D、交通运输经济、管理学原理、数据库技术及应用、运筹学

Higher Mathematics, Linear Algebra, Probability and Mathematical Statistics, Fundamentals of Computer Programming, College Physics, Engineering Survey, Descriptive Geometry and Engineering Drawing, Engineering Mechanics C, Transportation Economics, Principles of

Management Science, Database Technology and Applications, Operations Research

### (3) 专业基础课程 Specialty Foundational Courses

铁路方向：线路基础与铁路选线设计、综合运输工程、交通运输规划原理、交通运输系统分析、大数据与人工智能、交通运输安全工程、运输市场与商务

Railway transportation major: Integration Transportation Engineering, Lines Foundation and Railway Route Selection and Design, Principles of Transportation Planning, Transportation System Analysis, Big Data and Artificial Intelligence, Transportation Safety Engineering, Transportation Market and Business

城市轨道交通方向：公共关系与危机管理、综合运输工程、交通运输规划原理、交通运输系统分析、大数据与人工智能、交通运输安全工程、运输市场与商务

Urban rail transit major: Public Relations and Crisis Management , Integration Transportation Engineering, Lines Foundation and Railway Route Selection and Design, Principles of Transportation Planning, Transportation System Analysis, Big Data and Artificial Intelligence, Transportation Safety Engineering, Transportation Market and Business

### (4) 专业课程 Specialized courses

铁路方向：机车车辆与列车牵引计算、铁路通信信号、行车组织、铁路车站及枢纽、货物运输组织、旅客运输组织、交通运输专业英语、铁路规章

Railway transportation major: Railway Locomotive and Train Traction Calculation, Railway Communication Signal and Train Operation Control, Railway Train Operation, Railway Station and Terminal, Freight Transport Organization, Passenger Transport Organization, Transportation Professional English, Technical Regulations of Railway Operation

城市轨道交通方向：行车组织、城市轨道交通基础设施与设备、城市轨道交通车辆与牵引计算、城市轨道交通通信信号与列控、城市轨道交通规划与设计、城市轨道交通运营管理、城市轨道交通项目投融资与管理、城市轨道交通专业英语、城市轨道交通规章

Urban rail transit major: Railway Train Operation, Urban Rail Transit Infrastructures and Equipments, Urban Rail Transit Vehicles and Traction Calculation, Communication Signal and Train Control of Urban Rail Transit, Urban Rail Transit Planning and Design, Urban Rail Transit Operation Management, Railway Station and Terminal, Urban Rail Transit Investment and Project Management, Urban Rail Transit Professional English, Technical Regulations of Urban Rail Transit, Transportation Statistics

## 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		任选 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	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

Courses	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				8			8
	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 Experiment s)	数学与自然科学基础课 Foundational Courses on Mathematics and Natural Science		41	5	2			48
	专业基础课 Professional Foundational Courses	铁路方向 Railway Direction	12.5	0.5	4			17
		城轨方向 Urban Rail Direction	13		4			17
专业课程 (含实验) Specialized Courses(Including Experiment s)	专业核心课程 Specialized Core Course	铁路方向 Railway Direction	21	1				22
		城轨方向 Urban Rail Direction	23	1				24
	专业限修课程 Specialized Restricted Courses	铁路方向 Railway Direction			4			4
		城轨方向 Urban Rail Direction			4			4
实习实践教学 Practice Courses	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	铁路方向 Railway Direction		19				19
		城轨方向 Urban Rail Direction		17				17
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, etc		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						0
总计 Total								158

## VII.课程设置细化表 Course Programs Table

### (I)铁路运输方向课程设置 Course Program of Railway transportation major

公共基础课程 Public Basic Courses 共 32 学分，其中必修 30 学分，限选 2 学分，选修 0 学分 A total credits of 32, including 30 for compulsory courses, 2 for distributional electives, 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	1、9、10	
	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	1	
	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	1、9	
	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	1、8、9	
	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	1、8、9	



思想政治类 Ideological Politics Courses	形势与政策 I Situation and Policy I	必修 Compulsory	0		第 1 学期 1st Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 II Situation and Policy II	必修 Compulsory	0		第 2 学期 2nd Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 III Situation and Policy III	必修 Compulsory	0		第 3 学期 3rd Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 IV Situation and Policy IV	必修 Compulsory	0		第 4 学期 4th Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 V Situation and Policy V	必修 Compulsory	0		第 5 学期 5th Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 VI Situation and Policy VI	必修 Compulsory	0		第 6 学期 6th Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 VII Situation and Policy VII	必修 Compulsory	0		第 7 学期 7th Semester	马克思主义学 院 School of Marxism	1、8、9	
	形势与政策 VIII Situation and Policy VIII	必修 Compulsory	2		第 8 学期 8th Semester	马克思主义学 院 School of Marxism	1、8、9	
军事类 Military Courses	军事理论 Military Theories	必修 Compulsory	2		第 1 学期 1st Semester	武装部 Security Office	1、10	
	军事技能 Military Skills	必修 Compulsory	2	2	短 1 学期 Short Semester 1	武装部 Security Office	1、10	
外语类 Foreign Language Courses	英语 I College English I	必修 Compulsory	2		第 1 学期 1st Semester	外国语学院 School of Foreign Languages	11	
	英语 II College English II	必修 Compulsory	2		第 2 学期 2nd Semester	外国语学院 School of Foreign Languages	11	
	通用学术英语 English for General Academic Purposes	必修 Compulsory	2		第 3 学期 3rd Semester	外国语学院 School of Foreign Languages	5、11	
	职场英语 Workplace English	限修 Distributional Elective	2		第 4 学期 4th Semester	外国语学院 School of Foreign Languages	5、11	限选 1 门, 2 学分 Limited to 1 course, 2 credits
	交际与文化视听说 Viewing, Listening & Speaking in English --Communication & Culture							
	语言、文化与翻译 Language, Culture and Translation							
	英语公共演讲 Public Speaking in English							

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	1、10	
	体育 II Physical Education II	必修 Compulsory	1	1	第 2 学期 2nd Semester	体育部 Dept. of Physical Education	1、10	
	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	1、10	
	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	1、10	
	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	1、10	
	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	1、10	
<b>通识教育课程</b> <b>General Education Courses</b> 共 10 学分，其中必修 2 学分，限选 8 学分，选修 0 学分 A total credits of 10, including 2 for compulsory courses, 8 for distributional electives, 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
核心通识课 Core General Education	“交通天下”通识课程 General Studies on Transportation	限修 Distributional Elective	8		2-8 学期 2-8 Semester	人文学院 School of Humanities	1、4、7、8、9	
新生研讨课 Freshman Seminar	交通运输导论 Introduction to Traffic and Transportation	必修 Compulsory	2		第 1 学期 1st Semester	交通运输与物流学院 School of Transportation and Logistics	1、5、9、11	
<b>学科与专业基础课程（含实验）</b> <b>Discipline and Specialty foundational Courses(Including Experiments)</b> 共 65 学分，其中必修 59 学分，限选 6 学分，选修 0 学分 A total credits of 65, including 59 for compulsory courses, 6 for distributional electives, 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		第 1 学期 1st Semester	数学学院 School of Mathematics	2、6	
	高等数学 II Higher Mathematics II	必修 Compulsory	5		第 2 学期 2nd Semester	数学学院 School of Mathematics	2、6	
	线性代数 B Linear Algebra B	必修 Compulsory	3		第 1 学期 1st Semester	数学学院 School of Mathematics	2、6	

数学与自然科学 基础课 Foundational Courses on Mathematics and Natural Science	概率论与数理统计 Probability Theory and Mathematical Statistics	必修 Compulsory	3		第 3 学期 3rd Semester	数学学院 School of Mathematics	2、6	
	数值计算 Numerical Calculation	限修 Distributional Elective	2		第 2 学期 2nd Semester	数学学院 School of Mathematics	3、6	限修 2 学分 Distributional Elective 2 credits
	数学建模 C Mathematical Modeling C							
	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 Information	3、6	
	大学物理 BI College Physics BI	必修 Compulsory	3		第 2 学期 2nd Semester	物理科学与技 术学院 School of Physics	2、6	
	大学物理 BII College Physics BII	必修 Compulsory	3		第 3 学期 3rd Semester	物理科学与技 术学院 School of Physics	2、6	
	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	2、6	
	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	2、6	
	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 School of Earth Sciences and Environmental Engineering	2、3	
	画法几何及工程制图 B Descriptive geometry and Engineering Drawing B	必修 Compulsory	2		第 3 学期 3rd Semester	土木工程学院 School of Civil Engineering	2、3、6	
	工程力学 D Engineering Mechanics D	必修 Compulsory	2		第 3 学期 3rd Semester	力学与工程学 院 School of Mechanics and Engineering	2、3	
	交通运输经济 Transportation Economics	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、12	
	管理学原理 B Principles of Management Science B	必修 Compulsory	2		第 3 学期 3rd Semester	交通运输与物 流学院 School of Transportation and Logistics	3、7、10、12	
	数据库技术及应用 A Database Management System A	必修 Compulsory	3	1	第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	6	
	运筹学 Operation Research	必修 Compulsory	4		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、6、8、12	

	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	5、12	
专业基础课 Professional Foundational Courses	线路基础与铁路选线 设计 Railway Location and Design	必修 Compulsory	2	0.5	第 4 学期 4th Semester	土木工程学院 School of Civil Engineering	2、4	
	交通运输规划原理 Principles of Transportation Planning	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、8、10	
	交通运输系统分析 Transportation System Analysis	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4	
	综合运输工程 Integration Transportation Engineering	必修 Compulsory	2		第 3 学期 3rd Semester	交通运输与物 流学院 School of Transportation and Logistics	2	
	大数据与人工智能 Big Data and Artificial Intelligence	必修 Compulsory	1		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	5、6、11	
	交通运输安全工程 Safety Engineering	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	4、7	
	运输市场与商务 Transportation Market and Business	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、12	
	交通运输法规 Transportation Laws	限修 Distributional Elective	2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	9	限修 4 学分 Distributional Elective 4 Credits
	交通工程学基础 Fundamentals of Transportation Engineering		2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、4、7	
	物流学 Logistics		2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3	
	交通运输心理学 Passenger Psychologist		2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、9、11	
	货物学 Cargoes		2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3	

	交通港站与枢纽 Harbor Engineering	限修 Distributional Elective	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4	
<b>专业课程（含实验）</b> <b>Specialized Courses(Including Experiments)</b> 共 26 学分，其中必修 22 学分，限选 4 学分，选修 0 学分 A total credits of 26, including 22 for compulsory courses, 4 for distributional electives, 0 for freeelectives								
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	机车车辆与列车牵引 计算 Locomotive、Vehicle and Train traction calculation	必修 Compulsory	2	0.5	第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	4、6	
	铁路通信信号与列车 运行控制 Railway Communication Signal and Train Operation Control	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	2、4	
	行车组织 A Railway Train Operation A	必修 Compulsory	4		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、8、9、 12	
	铁路车站及枢纽 Railway Station and Terminal	必修 Compulsory	3		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、8、9、 12	
	货物运输组织 B Freight Transport Organization B	必修 Compulsory	2		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、8、11、 12	
	旅客运输组织 Passenger Transport Organization	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、8、11、12	
	交通运输专业英语 Transportation Professional English	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	11	
	交通运输统计 Transportation Statistics	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics		
	铁路规章 Technical Regulations of Railway Operation	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	4、7、9	

专业限修课程 Specialized Restricted Courses	高速铁路运营管理 Operation Management of High Speed Railway	限修 Distributional Elective	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3	限修 4 学分 Distributional Elective 4 Credits
	集装箱运输与多式联 运 Container and Intermodal Transportation		1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、4	
	铁路行车安全管理 Railway Operation Safety Ensuring		1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、9	
	计算机编制列车运行 图 Train Diagramming with Computer		1	0.5	第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	6	
	铁路运输信息系统及 智能化 Railway Transportation Information System		2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	6	
	编组站工作自动化 Marshalling Yard Operation Automation		1	0.5	第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、6	
	综合客运枢纽 Railway Passenger Hub		1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4	
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, 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	交通运输专业基础实 验 Basic Experiment of Transportation	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	3、5	
	行车组织仿真实验 Train Operation Simulation Experiment	必修 Compulsory	0.5	0.5	第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、5、6	
	货物运输组织实验 Experiments of Freight Transport Organization	必修 Compulsory	0.5	0.5	第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、5	

Design, Social and Cultural Quality Practice, Graduation Internship and Graduation Design	旅客运输组织课程设计 Passenger Transport Organization Experiments	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	4、5、12	
	行车组织课程设计 A Course Design in Railway Train Operation A	必修 Compulsory	2	2	第 6 学期 6th Semester	交通运输与物流学院 School of Transportation and Logistics	4、5、12	
	货物运输组织课程设计 Course Design in Freight Transport Organization	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、8、12	
	铁路车站及枢纽课程设计 Course Design in Railway Station and Terminal	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、8、12	
	社会调查 Social survey	必修 Compulsory	0.5	0.5	短 1 学期 Short Semester 1	交通运输与物流学院 School of Transportation and Logistics	5、11、13	
	认识实习（运输） Cognition Practice (Transportation)	必修 Compulsory	1.5	1.5	短 2 学期 Short Semester 2	交通运输与物流学院 School of Transportation and Logistics	7、9、10、13	
	生产实习（运输） Specialized Production Practice (Transportation)	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	7、9、10、13	
	毕业设计（论文） Graduation Dissertation	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	5、7、8、9、11、12、13	
<b>多元化课程</b> <b>Diversified course</b> 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, 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
跨学科课程 Interdisciplinary Courses	全校跨学科课程 Interdisciplinary Course of University	限修 Distributional Elective	2	2	3-7 学期 3-7 Semester	全校 The whole school	3、4、11、13	限修 4 学分 Distributional Elective 4 Credits
美育专业类课程 Aesthetic Education Courses,	全校美育专业类课程 Aesthetic Education Specialty Courses of University		2	2				按照《西南交通大学多元化课程修读指导手册》执行。 Follow the 《Instruction manual of
学科竞赛类课程 Subject Competition Courses	全校学科竞赛课程 Subject Competition Courses of University		2	2				

个性化选修课程 Personalized Elective Courses	全校个性化选修课程 Personalized Elective Courses of University		2	2				diversified courses of southwest Jiaotong University
<b>创新创业实践</b> <b>Innovation and Entrepreneurship Practice</b> 共 2 学分，其中必修 2 学分，限修 0 学分，选修 0 学分 A total credits of 2, including 2 for compulsory courses, 0 for distributional electives, 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 Entrepreneurshi p Training Program, Personalized Experiments, Subject Competition, Innovation Lectures, etc	创新讲座 Innovative lectures	必修 Compulsory	2	2	第 8 学期 8th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4、11、13	按照《西南交 通大学创新 实践学分认 定与管理办 法》规定执行 By Credit Recognition and Management of Innovative Practice in Southwest Jiaotong University
<b>必修环节</b> <b>A compulsory part</b> 共 0 学分，其中必修 0 学分，限选 0 学分，任选 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	1-8 学期 1-8 Semester	校团委 Communist Youth League Committee	10、13	
	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	10	
学分总计 Total Credits			158					



## (II)城市轨道交通方向课程设置 Course Program of Urban rail transportation major

公共基础课程 <b>Public Basic Courses</b> 共 32 学分, 其中必修 30 学分, 限选 2 学分 A total credits of 32, including 30 for compulsory courses, 2 for distributional 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	1、9、10	
	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	1	
	马克思主义基本原理 The Basic Principles of Marxism	必修 Compulsory	3	0.4	3 学期 3rd Semester	马克思主义学院 School of Marxism	1、9	
	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	1、8、9	
	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	1、8、9	
	形势与政策 I Situation and Policy I	必修 Compulsory	0		第 1 学期 1st Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策 II Situation and Policy II	必修 Compulsory	0		第 2 学期 2nd Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策 III Situation and Policy III	必修 Compulsory	0		第 3 学期 3rd Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策 IV Situation and Policy IV	必修 Compulsory	0		第 4 学期 4th Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策 V Situation and Policy V	必修 Compulsory	0		第 5 学期 5th Semester	马克思主义学院 School of Marxism	1、8、9	

思想政治类 Ideological Politics Courses	形势与政策VI Situation and Policy VI	必修 Compulsory	0		第 6 学期 6th Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策VII Situation and Policy VII	必修 Compulsory	0		第 7 学期 7th Semester	马克思主义学院 School of Marxism	1、8、9	
	形势与政策VIII Situation and Policy VIII	必修 Compulsory	2		第 8 学期 8th Semester	马克思主义学院 School of Marxism	1、8、9	
军事类 Military Courses	军事理论 Military Theories	必修 Compulsory	2		第 1 学期 1st Semester	武装部 Security Office	1、10	
	军事技能 Military Skills	必修 Compulsory	2	2	短 1 学期 Short Semester 1	武装部 Security Office	1、10	
外语类 Foreign Language Courses	英语 I College English I	必修 Compulsory	2		第 1 学期 1st Semester	外国语学院 School of Foreign languages	11	
	英语II College English II	必修 Compulsory	2		第 2 学期 2nd Semester	外国语学院 School of Foreign languages	11	
	通用学术英语 English for General Academic Purposes	必修 Compulsory	2		第 3 学期 3rd Semester	外国语学院 School of Foreign languages	5、11	
	职场英语 Workplace English	限修 Distributional Elective	2		第 4 学期 4th Semester	外国语学院 School of Foreign languages	5、11	限选 1 门， 2 学分 Limited to 1 course, 2 credits
	交际与文化视听说 Viewing, Listening & Speaking in English --Communication & Culture							
	语言、文化与翻译 Language, Culture and Translation							
	英语公共演讲 Public Speaking in English							
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	1、10	
	体育II Physical Education II	必修 Compulsory	1	1	第 2 学期 2nd Semester	体育部 Dept. of Physical Education	1、10	
	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	1、10	
	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	1、10	
	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	1、10	

	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	1、10	
<b>通识教育课程</b> <b>General Education Courses</b> 共 10 学分，其中必修 2 学分，限选 8 学分 A total credits of 10, including 4 for compulsory courses, 6 for distributional 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
核心通识课 Core General Education	“交通天下”通识课程 General Studies on Transportation	限修 Distributional Elective	8		2-8 学期 2-8 Semester	人文学院 School of Humanities	1、4、7、8、9	
新生研讨课 Freshman Seminar	交通运输导论 Introduction to Traffic and Transportation	必修 Compulsory	2		第 1 学期 1st Semester	交通运输与物流学院 School of Transportation and Logistics	1、5、9、11	
<b>学科与专业基础课程</b> <b>Discipline and Specialty foundational Courses</b> 共 65 学分，其中必修 59 学分，限选 6 学分 A total credits of 65, including 59 for compulsory courses, 6 for distributional 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		第 1 学期 1st Semester	数学学院 School of Mathematics	2、6	
	高等数学 II Higher Mathematics II	必修 Compulsory	5		第 2 学期 2nd Semester	数学学院 School of Mathematics	2、6	
	线性代数 B Linear Algebra B	必修 Compulsory	3		第 1 学期 1st Semester	数学学院 School of Mathematics	2、6	
	概率论与数理统计 Probability Theory and Mathematical Statistics	必修 Compulsory	3		第 3 学期 3rd Semester	数学学院 School of Mathematics	2、6	
	数值计算 Numerical Calculation	限修 Distributional Elective	2		第 2 学期 2nd Semester	数学学院 School of Mathematics	3、6	限修 2 学分 Distributional Elective 2 Credits
	数学建模 C Mathematical Modeling C		2		第 2 学期 2nd Semester	数学学院 School of Mathematics		
	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 Information	3、6	
	大学物理 BI College Physics BI	必修 Compulsory	3		第 2 学期 2nd Semester	物理科学与技术学院 School of Physics	2、6	
	大学物理 BII College Physics BII	必修 Compulsory	3		第 3 学期 3rd Semester	物理科学与技术学院 School of Physics	2、6	

数学与自然科学 基础课 Foundational Courses on Mathematics and Natural Science	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	2、6	
	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	2、6	
	工程测量 B Engineering Survey	必修 Compulsory	3	1	第 2 学期 2nd Semester	地球科学与环 境工程学院 School of Earth Sciences and Environmental Engineering	2、3	
	画法几何及工程制图 B Descriptive geometry and Engineering Drawing B	必修 Compulsory	2		第 3 学期 3rd Semester	土木工程学院 School of Civil Engineering	2、3、6	
	工程力学 D Engineering Mechanics D	必修 Compulsory	2		第 3 学期 3rd Semester	力学工程学院 School of Mechanics and Engineering	2、3	
	交通运输经济 Transportation Economics	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、12	
	管理学原理 B Principles of Management Science B	必修 Compulsory	2		第 3 学期 3rd Semester	交通运输与物 流学院 School of Transportation and Logistics	3、7、10、12	
	数据库技术及应用 A Database Management System A	必修 Compulsory	3	1	第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	6	
	运筹学 Operation Research	必修 Compulsory	4		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、6、8、12	
	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	5、12	
专业基础课 Professional Foundational Courses	公共关系与危机管理 Public Relations and Crisis Management	必修 Compulsory	2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、9、11	
	交通运输规划原理 Principles of Transportation Planning	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、8、10	
	交通运输系统分析 Transportation System Analysis	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4	

专业基础课 Professional Foundational Courses	综合运输工程 Integration Transportation Engineering	必修 Compulsory	2		第 3 学期 3rd Semester	交通运输与物 流学院 School of Transportation and Logistics	2	
	大数据与人工智能 Big Data and Artificial Intelligence	必修 Compulsory	1		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	5、6、11	
	交通运输安全工程 Safety Engineering	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	4、7	
	运输市场与商务 Transportation Market and Business	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、12	
	交通运输法规 Transportation Laws	限修 Distributional Elective	2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	9	限修 4 学 分 Distributio nal Elective 4 Credits
	交通工程学基础 Fundamentals of Transportation Engineering		2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、4、7	
	物流学 Logistics		2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3	
	交通运输心理学 Passenger Psychologist		2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、9、11	
	运输会计基础 Transportation Accounting Basis		2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、9	
	城市规划原理 Principles of Urban Planning		2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4	
专业课程 Specialized Courses 共 28 学分，其中必修 24 学分，限选 4 学分 A total credits of 28, including 24 for compulsory courses, 4 for distributional 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	行车组织 A Railway Train Operation A	必修 Compulsory	4		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、8、9、 12	
	城市轨道交通基础设施 与设备 Urban Rail Transit Infrastructures and Equipments	必修 Compulsory	2		第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、6	
	城市轨道交通车辆与牵 引计算 Urban Rail Transit Vehicles and Traction Calculation	必修 Compulsory	2	0.5	第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、6	
	城市轨道交通通信信号 与列控 Communication Signal and Train Control of Urban Rail Transit	必修 Compulsory	2	0.5	第 4 学期 4th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3	
	城市轨道交通规划与设 计 Urban Rail Transit Planning and Design	必修 Compulsory	3		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、7	
	城市轨道交通运营管理 Urban Rail Transit Operation Management	必修 Compulsory	4		第 6 学期 6th Semester	交通运输与物 流学院 School of Transportation and Logistics		
	城市轨道交通项目投融 资与管理 Urban Rail Transit Investment and Project Management	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、12	
	城市轨道交通专业英语 Urban Rail Transit Professional English	必修 Compulsory	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	11	
	交通运输统计 Transportation Statistics	必修 Compulsory	2		第 5 学期 5th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、6、12	
	城市轨道交通规章 Technical Regulations of Urban Rail Transit	必修 Compulsory	1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	9	
专业限修课程 Specialized Restricted Courses	城市轨道交通系统与环 境 Urban Rail Transit System and Environment	限修 Distributional Elective	2		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	7、8	限修 4 学 分 Distributio nal Elective 4 Credits
	铁路旅客运输组织 Passenger Transport Organization		2	0.5	第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、8、11、12	

专业限修课程 Specialized Restricted Courses	铁路货物运输组织 Freight Transport Organization	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、8、12	限修 4 学 分 Distributio nal Elective 4 Credits
	综合客运枢纽 Integrated Passenger Hub		1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	3、4	
	城市轨道交通新技术 Advanced Technology of Urban Rail Transit		1		第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	6	
	铁路车站及枢纽 Railway Station and Terminal		3	1	第 7 学期 7th Semester	交通运输与物 流学院 School of Transportation and Logistics	2、3、4、8、9、 12	
实习实践教学 Practice Course 共 17 学分，其中必修 17 学分 A total credits of 17, including 17 for compulsory courses								
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	行车组织课程设计 B Course Design in Train Operation of Urban Rail Transit B	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、5、12	
	城市轨道交通及交通运营管 理课程设计 Design of Urban Rail and Traffic Operation Management	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	
	城市轨道交通场站规划 课程设计 Course Design in Urban Rail Transit Station and Terminal	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、8、12	
	城轨车站运作管理实验 Station Operation Experiment of Urban Rail Transit	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、12	
	城轨控制中心行车调度 实验 OCC Train dispatching experiment of Urban Rail Transit	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、5、6	
	社会调查 Social survey	必修 Compulsory	0.5	0.5	短 1 学期 Short Semester 1	交通运输与物 流学院 School of Transportation and Logistics	5、10、13	

	认识实习（运输） Cognition Practice (Transportation)	必修 Compulsory	1.5	1.5	短 2 学期 Short Semester 2	交通运输与物 流学院 School of Transportation and Logistics	7、9、10、13	
	生产实习（运输） Specialized Production Practice (Transportation)	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	7、9、10、13	
	毕业设计（论文） Graduation Dissertation	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	5、7、8、9、11、 12、13	
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 , 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
跨学科课程 Interdisciplinary Courses	全校跨学科课程 Interdisciplinary Course of University	限修 Distributional Elective	4	4	3-7 学期 3-7 Semester	全校 The whole school	3、4、11、13	按照《西南 交通大学 多元化课 程修读指 导手册》执 行。 Follow the 《Instructi on manual of diversified courses of southwest Jiaotong University 》
美育专业类课程 Aesthetic Education Courses	全校美育专业类课程 Aesthetic Education Specialty Courses of University							
学科竞赛类课程 Subject Competition Courses	全校学科竞赛课程 Subject Competition Courses of University							
个性化选修课程 Personalized Elective Courses	全校个性化选修课程 Personalized Elective Courses of University							
创新创业实践 Innovation and Entrepreneurship Practice 共 2 学分，其中必修 2 学分，限修 0 学分，选修 0 学分 A total credits of 2, including 2 for compulsory courses, 0 for distributional electives , 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	创新讲座 Innovative lectures	必修 Compulsory	2	2	第 8 学期 8th Semester	交通运输与物流学院 School of Transportation and Logistics	3、4、11、13	按照《西南交通大学创新实践学分认定与管理办法》规定执行 By Credit Recognition and Management of Innovative Practice in Southwest Jiaotong University
<b>必修环节</b> <b>A compulsory part</b> 共 0 学分，其中必修 0 学分，限选 0 学分，任选 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	1-8 学期 1-8 Semester	校团委 Communist Youth League Committee	10、13	
	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	10	
学分总计 Total Credits			158					