

工程造价工程专业辅修培养方案

Undergraduate Programme for minor of Engineering Cost

一、培养目标 Objectives

面向国家城市现代化及交通基础设施建设的需求，坚持学校“双严”传统，培养理论基础扎实，专业知识宽厚，具有创新能力和国际视野，能够引领交通土建领域工程造价行业未来发展的创新型高级专门人才。毕业生应德、智、体、美、劳全面发展，具有深厚的历史底蕴和广阔的国际视野，较强的社会担当和健全的人格修养，积极的创新精神和严谨的批判思维，良好的人文情怀和扎实的科学素养，高尚的职业操守和优秀的专业才能。毕业生掌握管理科学与工程、土木工程的基本原理和专业知识，获得工程师的良好训练，具备较强的实践能力，能从事铁路和城市轨道交通、房屋建筑工程等大中型工程项目的投资决策和全过程工程造价管理工作。

To meet the major demands of the country city modernization and transportation infrastructure construction, we carry on the tradition of rigorous scholarship and strict requirement to cultivate innovative senior professionals with solid theoretical foundation, broad professional knowledge, innovative ability and international vision, who can lead the future development of engineering cost industry in the field of transportation infrastructure construction. Our graduates have a strong sense of social responsibility, good professional ethics, humanistic sentiments, scientific literacy, innovative spirit and critical thinking ability. With enhanced training and practice, they are well acquainted with the basic principles and professional knowledge in Management Science and Engineering, Civil Engineering and are able to engage in the investment decision-making and whole process cost management of large and medium-sized projects such as railway and urban rail transit, housing construction engineering, etc.

二、培养要求 Requirement

要求学生基本掌握管理科学与工程、土木工程学科的基本原理，涉猎工程造价的专业知识，获得工程造价专业技能实践训练，具备解决交通土建领域工程造价问题、从事工程造价相关专业工作的能力。

Students are required to master the basic principles of management science, engineering and civil engineering, professional knowledge related to engineering cost, practical training of engineering cost professional skills, and the ability to solve engineering cost problems in the field of transportation and civil engineering and engage in engineering cost related professional work.

三、前置课程 Pre course

辅修工程造价工程专业的学生，应先完成以下课程学习：《高等数学 I》、《高等数学 II》、《线性代数 B》、《概率论与数理统计》、《理论力学 B》、《材料力学 AI》、《材料力学 BII》、《工程测量 I》、《工程测量 II》、《土木工程地质》、《土木工程制图与信息模型 I》、《土木工程制图与信息模型 II》。

Students majoring in engineering cost should first complete the following courses: Advanced Mathematics I, Advanced Mathematics II, Linear Algebra B, Probability Theory and Mathematical Statistics, Theoretical Mechanics B, Mechanics of Materials AI, Mechanics of Materials BII, Engineering Surveying I, Engineering Surveying II, Civil Engineering Geology, Civil Engineering Drafting and Information Modeling I, Civil Engineering Drafting and Information Modeling II.

四、学分要求 Credits Requirements

修学本专业的必修课（见：课程设置，共计 53 学分），成绩合格，并符合《本科生辅修专业修读及辅修学位授予管理办法》规定者，可颁发本专业辅修证书。学制要求：学制不超过 2 年（从申请修读辅修专业起）。

A minor bachelor's certificate can be awarded to those who have completed the required courses (see: curriculum design, 53 credits in total) and have passed the examination, and meet the requirements of the administrative measures for the granting of minor majors and minor degrees for undergraduates. Length of schooling: no more than 2 years (from the application for minor major).

五、课程设置 Course Programs

课程类型 Course Type	课程名称 Course Name	课程性质 Category of Course	总学分 Credits	开课学期 Semester	开课学院 School	备注 Notes
专业基础课 Professional Foundational Courses	结构力学 AI Structural Mechanics AI	必修 Compulsory	4	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
	土力学及基础工程 B Soil Mechanics and Foundation Engineering B	必修 Compulsory	3	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
	土木工程材料 Civil Engineering Materials	必修 Compulsory	3	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	混凝土结构设计原理 Design Principles of Concrete Structures	必修 Compulsory	4	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	钢结构原理 Principles of Steel Structures	必修 Compulsory	3	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	运筹学 Operational Research	必修 Compulsory	2	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	工程经济学 I Engineering Economics I	必修 Compulsory	2	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
专业核心课程 Specialized Core Courses	工程造价管理 Engineering Cost Management	必修 Compulsory	2	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	工程项目管理与全过程咨询 Engineering Project Management and Total Process Consulting	必修 Compulsory	4	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
	招标投标与合同管理 Tendering and Bidding & Contract Management	必修 Compulsory	2	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
	线路规划及设计 Planning and Design of Railway Location	必修 Compulsory	3	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	路基工程 B Subgrade Engineering B	必修 Compulsory	2	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	轨道工程 A Track Engineering A	必修 Compulsory	3	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	铁路工程施工技术及组织 Technology Project Management of Railway Engineering	必修 Compulsory	3	春季学期 Spring semester	土木工程学院 School of Civil Engineering	

	铁路工程计量与计价 Railway Engineering Measurement and Calculation Cost	必修 Compulsory	4	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	房屋建筑 Building Construction	必修 Compulsory	3	秋季学期 Fall semester	土木工程学院 School of Civil Engineering	
	建筑施工技术 B Building Construction Technology B	必修 Compulsory	2	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
	建筑工程计量与计价 Building Engineering Measurement and Calculation Cost	必修 Compulsory	4	春季学期 Spring semester	土木工程学院 School of Civil Engineering	
总学分 Total Credits			53			