《运筹学》课程中英文简介

Operations

课程代码：070143A **Course Code：**070143A

课程名称：运筹学 **Course Name：**Operations

学时：48 **Periods：**48

学分：3 **Credits：**3

考核方式：考试 **Assessment：**Examination

先修课程：高等数学、线性代数 **Preparatory Courses：**Higher Mathematics，

Linear Algebra

《运筹学》是为信息管理与信息系统、工业工程、数据科学与大数据技术（信息技术）和计算机科学与技术专业学生开设的学科基础课。通过本门课程的学习，使学生了解运筹学基本模型的实践背景，理解全局优化的基本思想，掌握相关模型的建立及求解方法，并能够运用计算机软件求解所学运筹学模型及对求解结果进行分析和改进处理。

本课程是一门基础性的应用课程，主要研究系统最优化问题，为管理人员作决策提供科学依据，培养学生定量分析的基本技能和全局优化的思想，掌握相关模型的建立及求解方法。本课程主要包括线性规划、对偶理论、灵敏度分析、运输问题、网络分析、整数规划等教学内容。

“Operations” is a basic course for students majoring in Information Management and Information System, Industrial Engineering, Data Science and Big Data Technology (Information Technology) and Computer Science and Technology. Through the study of this course, students can understand the practical background of the basic model of Operations, understand the basic idea of global optimization, master the establishment and solution methods of relevant models, and be able to use computer software to solve the learned operations research model and analyze and improve the solution results.

This course is a basic application course, which mainly studies system optimization problems. It provides scientific basis for managers to make decisions. The study of this course cultivates students' basic skills of quantitative analysis and the idea of global optimization, and grasps the establishment and solution methods of relevant models. This course mainly includes linear programming, dual theory, sensitivity analysis, transportation problems, network analysis, integer programming and so on.