《机器学习与量化投资》课程中英文简介

Machine Learning and Quantitative Investment

课程代码：2121493A **Course Code：**2121493A

课程名称：机器学习与量化投资 **Course Name：**Machine Learning and Quantitative Investment

学时：48 **Periods：**48

学分：3 **Credits：**3

考核方式：考试 **Assessment：**Examination

先修课程：程序设计基础与应用、 **Preparatory Courses：**Fundamentals of

数据结构、高等数学 Programming Design and Applications、Data

Structure、Higher Mathematics

《机器学习与量化投资》是信息管理与信息系统专业的一门专业核心课程。本课程是面向信息管理与信息系统开设的专业核心课。其教学重点是使学生掌握常见机器学习算法，包括算法的主要思想和基本步骤，并通过编程练习和典型应用实例加深了解；同时对机器学习的一般理论，如假设空间、计算学习理论，以及无监督学习和强化学习有所了解。量化投资部分介绍机器学习在量化投资方面的具体分析与应用，包括对未来股票价格的预测、大盘指数趋势分析等。

*Introduction to Machine Learning and Quantitative Investment* is one of compulsory course for information management and information system major. This course is a compulsory course for the students who major in information management and information system major. And its teaching focus is to enable students to master the common machine learning algorithms, including the main idea and the basic approaches of the algorithm. Students can enhance their mutual understanding through programming practice and typical application examples by learning this course. And they can also well understand the general theory of machine learning (such as hypothesis space, sampling theory, and computational learning theory), unsupervised learning and reinforcement learning in this course. The quantitative investment part introduces the specific analysis and application of machine learning in quantitative investment, including the prediction of future stock prices and the trend analysis of the market index.