## 《应用随机过程》课程中英文简介

《Applied Stochastic Process》

课程代码：152062B **Course Code：**152062B

课程名称：应用随机过程 **Course Name：**Applied Stochastic Process

学 时：32 **Periods：**32

学 分：2 **Credits：**2

考核方式：考查 **Assessment：**Assignment

先修课程：数学分析I, 数学分析II, **Preparatory Courses：** Mathematical Analysis I,

线性代数，概率论与数理统计 Mathematical Analysis II, Linear Algebra, Probability Theory and Mathematics Statistics

《应用随机过程》是为金融学、经济学、管理学和统计学相关专业的本科生开设的课程。本课程主要介绍几类重要的随机过程的基本理论与应用，包括马尔科夫链、泊松过程、布朗运动与随机微积分初步。通过本门课程的教学，学生会掌握随机过程的基本知识，抽象思维和符号运算能力会得到提高。另外，学生将会了解如何使用蒙特卡洛模拟解决实际问题。本课程为学生进一步学习和随机过程有关的金融和经济课程打下了坚实的专业基础。本课程将培养学生艰苦奋斗的精神，引导学生树立正确的价值观，增强学生的爱国情怀。

The course of “Applied Stochastic Process” introduces the theory and applications of several important stochastic processes to undergraduate students who major in finance, economics, management or statistics. The course mainly includes Markov chains, Poisson process, Brownian motion and an introduction to stochastic calculus. Students can learn essential knowledge of the subject, and develop the logical reasoning and symbol handling skills. Additionally, students can understand how to solve real problems using Monte Carlo simulation. The course offers students a solid foundation for further studying related courses in finance and economics. This course will develop students’ awareness of hard working, guide students into the formation of correct values, and strengthen the patriotic feelings of students.