

理学院（数学与应用数学专业）课程简介

课程编号：1713001100

课程名称：数学软件与实验

学分/学时：3/48

先修课程：数学分析/高等代数/概率论与数理统计

适用专业：数学类专业

课程性质：限选

教材：《数学实验》（第二版），李继成编，高等教育出版社，2014。

主要参考书：《数学实验》，李尚志，陈发来编，高等教育出版社，2012。

内容简介：《数学软件与实验》是面向数学系大学二年级学生的一门选修课。它需要学生具有《数学分析》和《线性代数》的基础知识。该课程的目的是让学生掌握一种数学软件，并在实验中学习、探索和发现数学规律，感受数学乐趣。其主要内容包括 Matlab 基础以及用 Matlab 求解数学分析、线性代数、概率统计以及一些实际应用中的数学问题的各种实验。

Course Description

School of Science Faculty

Course Code: 1713001100

Course Name: MATHEMATICS SOFTWARE AND LAB

Credit/Hours: 3/48

Textbooks: 《Mathematical Experiments》, Li Jicheng, Higher Education Press, 2014.

Reference Books: 《Mathematical Experiments》, Li Shangzhi, Chen Falai, Higher Education Press, 2012.

Course Description: MATHEMATICS SOFTWARE AND LAB is an elective course for the second-year

undergraduates in mathematics department with a background of MATHEMATICS ANALYSIS and LINEAR ALGEBRA. The aim of the course is to make the students master a mathematics software, and to let them learn, investigate and find the rule of mathematics, and enjoy the mathematics, by carrying out experiments. The course covers the basis of the Matlab software and a variety of experiments to solve mathematics problem in MATHEMATICS ANALYSIS, LINEAR ALGEBRA, PROBABILITY AND STATICS and real applications, with the help of Matlab software.