

理学院（数学与应用数学专业）课程简介

课程编号：1713001190

课程名称：拓扑学

学分/学时：2.5/40

先修课程：数学分析/高等代数/近世代数

适用专业：数学类专业

课程性质：必修

教材：《点集拓扑与代数拓扑引论》，包志强编，北京大学出版社，2013年。

主要参考书：《一般拓扑学基础》，张德学编，科学出版社，2012年。

内容简介：《拓扑学》是高等学校数学与应用数学专业本科三年级选修的一门专业基础课，其先修课程为《数学分析》，《高等代数》，《近世代数》。本课程的内容如下：拓扑空间的基本概念，最重要的几个公理、定理、和一些重要的结论。本课程理论性非常强，很抽象，但其理论和方法在数学、自然科学和工程技术中有着广泛的应用，是不可缺少的理论工具。在学习中要正确理解和掌握这些数学概念和方法，逐步培养利用这些概念和方法解决实际问题的能力。

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Course Description

School of Science Faculty

Course Code: 1713001190

Course Name: Topology

Credit/Hours: 2.5/40

Textbooks: Bao Zhiqiang. 《An Introduction to Point Set Topology and Algebraic Topology》. Press of Peking University, 2013.

Reference Books: Zhang Dexue. 《Foundation of General Topology》. Press of Science, 2012.

Course Description : TOPOLOGY is a elective professional basic course for the third-year undergraduates of applications mathematics subjects. Before the course is offered, students need to study MATHEMATICS ANALYSIS, LINEAR-ALGEBRA , ABSTRACT ALGEBRA. The course content is as follows: the basic concepts of topology space, the most important axioms, theorems and some important conclusions. The course is strongly theoretical and pretty abstract, but the theory and methods of the course, as an indispensable theory tool, are widely used in mathematics, natural science and engineer technology fields. In the course of study, students need correctly apprehend and master the mathematics concepts and methods, and gradually cultivate the ability to applied the theory into practical problems.