

课程编号：1713602590

课程名称：时间简史

学分/学时：2/32

先修课程：无

适用专业：全校各专业

课程性质：全校选修

教材：霍金 著，王宇琨，董志道 编著. 图解时间简史. 北京联合出版公司, 2013

主要参考书：索恩 著，李泳 译. 黑洞与时间弯曲. 湖南科学技术出版社. 2012 第 8 次印刷

内容简介：

时间简史是面向全校各专业本科学生的一门通识性任选课程。本课程主要讲授当代杰出的几位物理学家、天文学家和数学家在物理学、天文学等方面所取得的研究成果，使学生对“时间”这一概念从物理学、天文学等的不同角度有一个明晰而完整的了解。本课程讲述内容包括：时间的形象、我们的宇宙、空间和时间、狭义相对论简介、广义相对论简介、不确定性原理、膨胀的宇宙、宇宙大爆炸、黑洞简介、虫洞和时间机器、统一的时间景象。

Course Description

Course Code: 1713602590

Course Name: A Brief History of Time

Credit/Hours: 2/32

Textbooks: Stephen Hawking, Wang Yukun, Dong Zhidao. A Brief History of Time. Beijing Union Publishing Company, 2013

Reference Books: Thorne, Li Yong. Black Holes and Time Warps. Hunan Science and Technology Press, 2012

Course Description:

A Brief History of Time is a general education optional course for the junior student. This course introduces achievements in physics and astronomy, and the research results obtained by

contemporary distinguished physicists, astronomers and mathematicians. It shows students a clear and complete understanding of the concepts of time from perspectives of physicists and astronomers. The main content of the course involves the following points. the image of time, our picture of the universe, space and time, special theory of relativity, general relativity, uncertainty principle, the expanding universe, the origin of the universe, black holes, wormholes and time travel, the unification of time, etc