

课程编号：1713602600

课程名称：黑洞与时间弯曲

学分/学时：1/16

先修课程：无

适用专业：全校各专业

课程性质：全校选修

教材：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

主要参考书：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

内容简介：

黑洞与时间弯曲是面向全校各专业本科学生的一门任选课程。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、天文学等方面所进行的深入探讨，使学生对时间、空间、黑洞等相关概念从不同角度有一个明晰而完整的了解。本课程讲述内容包括：空间和时间、相对论和不确定性原理、中子星与白矮星、宇宙的起源、黑洞简介、空间和时间的弯曲等。

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Course Description

Course Code: 1713602600

Course Name: Black Holes and Time Warps

Credit/Hours: 1/16

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

Reference Books: Stephen Hawking, Wang Yukun, Dong Zhidao. A Brief History of Time. Beijing

Union Publishing Company, 2013

Course Description:

Black Holes and Time Warps 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, space, black holes and other related concepts from perspectives of physicists and astronomers. The main content of the course involves the following points. space and time, the theory of relativity and uncertainty principle, neutron stars and white dwarfs, the origin of the universe, black holes, space and time warps, etc.