

MATE130019	真空物理与技术	学分：3	周学时：3
	Vacuum Physics and Technology	总学时：54	
预修课程：普通物理 经典物理			
修读对象：电子科学与技术及材料物理本科生			

#### 中文课程简介（150 字以内）

真空科学与技术广泛应用于电子、航天及纳米技术等新兴科技领域。本课程只涉及最基本的真空物理和技术。主要内容包括：稀薄气体运动规律、固气界面的物理化学性质、真空获得、真空测量、真空检漏及真空应用。学完该课程后，学生应掌握真空的基本原理，了解真空技术各个领域基本概况和发展最新动态以及相关设备和工艺技术。

#### 英文课程简介

The science and technology of vacuum are widely applied in new scientific and technological undertakings such as electronics, space and nanotechnology. This course only involves basic vacuum physics and technology. Its main contents include: rare gas dynamics, physical and chemical properties of solid gas interface, vacuum acquisition, vacuum measuring, vacuum leakage detection and vacuum application. After having learned this course, students should know well the fundamental principles of vacuum, and understand the general situation, the latest development as well as relevant equipments and technology of each field in vacuum.