

MATE130067	材料力学	学分：2	周学时：2
	Mechanics of Materials	总学时： 36	
预修课程： 高等数学，大学物理，材料结构与性能			
修读对象： 本科			

### 中文课程简介

本课程的学习使学生掌握材料力学方面的理论知识和应力分析方法、以及有限元法的基本概念和原理；建立材料力学性能与材料应用选择、开发相关联的思维模式；能够利用材料力学知识进行应力分析、理解有限元分析的基本原理；使学生理解从力学基本原理到分析应用的完整过程和联系，是深入学习掌握材料疲劳、断裂等理论的基础课程。

### 英文课程简介

The students can learn the knowledge of mechanical stress analysis method and the principles and basic concepts of finite element method in the course. The course will help students to build the relationship between materials' mechanical performances and material selection and developing. Learning the course, the students are able to perform the stress analysis for simple structures by material mechanics and understand the concepts of finite element analysis (FEA). The course will make clear the total process from mechanical analytic method to application. The course is the basis for further mechanics studying, such as material fatigue, fracture theories etc.