

## 理论力学(乙)课程介绍

### 一、中文简介：

《理论力学》是一门极其重要的技术基础课，内容包括静力学、运动学与动力学三部分。静力学研究受力的分析方法、力系的简化与平衡条件；运动学研究点和刚体的运动、点的合成运动分析法、刚体的平面运动分析；动力学研究质点与质点系的动力学方程、动力学普遍定理、动静法、虚位移原理。

### 二、英文简介：

The book includes three parts: statics, kinematics, and dynamics, divided into fourteen chapters. The first part, statics, introduces basic concepts and principles of statics, reduction and equilibrium of force system, and friction, etc. The second part, kinematics, covers kinematics of a point, translation and rotation of rigid bodies, composite motion of a point, and plane motion of rigid bodies. The third part, dynamics, covers fundamental laws of kinetics and differential equations of a particle, the principle of impulse and momentum, generalized theorem of dynamics, D' Alembert principle, and principle of virtual displacement.