# 画法几何课程介绍

**一、中文简介：**

课程内容包括土木工程制图基本规定、正投影法和平行投影，以正投影为主。正投影部分包括：投影原理，点、直线、平面的投影性质，点、直线、平面的相对位置及有关作图，曲线与曲面形成和投影、常用工程曲面，立体的投影、立体与平面的截交、立体与立体的相交，工程组合体或复杂体的投影图绘制和阅读，以及用投影变换解空间形体的度量和定位问题、标高投影等；平行投影部分介绍轴测图的形成及画法。通过本课程的学习，使学生掌握图示理论，为后续课程打下基础。

**二、英文简介：**

"Descriptive geometry" introduces theories and methodologies to solve geometry problems of objects through dealing with their projections on a plane surface.

The course covers three different types of projections: central projection (perspective projection), orthographic projection and axonometric projections and focuses on orthographic projection. The "orthographic projection" part includes projection concepts, projections of points, lines, planes, curves and curved surface, projections of sections of solids, intersection of surfaces of solids, and drawing and reading of projections of solid combination, projection using auxiliary planes, shades and shadows; The "Axonometric projection" part introduces formation and drawing of axonometric projections. The "central projection" part describes perspective drawing of basic solids. This course will provide engineering students with foundation for subsequent courses.