

MATE130073	柔性光电子学	学分：2	周学时：2
	Flexible Optoelectronics	总学时：36	
预修课程：功能材料，光电子学			
修读对象：大学本科三、四年级			

#### 中文课程简介（150 字以内）

柔性光电子学涉及光学、电子学、高分子、物理、材料等多学科交叉。使学生了解柔性光电子学的重要性和必要性，掌握柔性光电子学中的柔性基板、柔性透明导电薄膜和阻挡层、喷墨打印制备技术、卷对卷柔性制备技术、柔性基板上的 TFT、柔性有机电致发光显示、柔性液晶显示、无机柔性太阳能电池，有机柔性太阳能电池的基本工作原理、现状和应用领域，熟悉其中的重要概念、基本原理和特点，拓展专业视野和优化知识结构，熟悉相关科学和技术发展趋势。

#### 英文课程简介

Brief contents of the course:

Flexible optoelectronics is a highly interdisciplinary subject related to optics, electronics, polymer science, physics and materials science etc.

Purpose of the course:

Students are expected to be aware of the importance and necessity of flexible optoelectronics firstly. Basic subjects of flexible optoelectronics should be mastered, namely properties of flexible substrates; flexible transparent conductive film and barrier layer; ink-jet printing technique; roll-to-roll manufacture technique; TFT on flexible substrate; flexible organic electro-fluorescent display; flexible liquid crystal display; inorganic flexible solar cells; organic flexible solar cells. Students should be familiar with important concepts and characteristics of the subjects in order to broad professional horizon and optimize knowledge structure as well as be acquainted with the tendency of related science and technologies.