《人因工程课程设计》课程中英文简介

Course Project of Human Factors Engineering

课程代码：081221B **Course Code：**081221B

课程名称：人因工程课程设计 **Course Name：**Course Project of Human Factors Engineering

学时：16 **Periods：**16

学分：1 **Credits：**1

考核方式：考查 **Assessment：**Check

先修课程：人因工程 **Preparatory Courses：**Human Factors Engineering

人因工程是研究人—机—环境三者之间相互关系的学科，是近几十年来发展起来的一门多学科交叉性应用学科，是工业工程的重要研究领域。该学科在发展过程中有机融合了生理学、心理学、医学、卫生学、人体测量学、劳动科学、系统工程学、社会学和管理学等学科的知识和成果，形成自身的理论体系、研究方法、标准和规范，研究和应用范围广泛并具有综合性。该课程在于设计和改进人—机—环境系统，使系统获得较高的效率和效益，同时保证人的安全、健康和舒适。研究内容包括：（1）研究人的生理与心理特性；（2）研究人机系统总体设计；（3）研究人机界面设计；（4）研究工作场所设计和改善；（5）研究工作环境及其改善；（6）研究作业方法及其改善； （7）研究系统的安全性和可靠性；（8）研究组织与管理的效率。

在传授专业知识的过程中，明确将专业性职业伦理操守和职业道德教育融为一体，给予学生正确的价值取向引导，以此提升学生的思想道德素质和情商能力。

The course is designed to provide a deep understanding of human-centered design through the introduction of a series special topics (including human anthropometry, signal detection theory, psychophysics, information theory and control, tracking and mental workload) and modeling techniques with the aim of improving safety, productivity, comfort and health of people. Research contents include: (1) the physiological and psychological characteristics of people; (2) the overall design of man-machine system; (3) the man-machine interface design; (4) the workplace design and improvement; (5) improving the working environment; (6) the operation method and its improvement(7); the safety and reliability of the system; (8) the efficiency of organization and management.

In the process of imparting professional knowledge, we should clearly integrate professional ethics and professional ethics education, and give students correct guidance of value orientation, so as to improve students' Ideological and moral quality and emotional intelligence ability.