

课程大纲 COURSE SYLLABUS

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| 1. | 课程代码/名称 Course Code/Title | Innovation, Technology and Management in Modern Engineering 现代工程创新科技与管理 |
| 2. | 课程性质 Compulsory/Elective | 专业课 |
| 3. | 课程学分/学时 Course Credit/Hours | 3/48 |
| 4. | 授课语言 Teaching Language | English |
| 5. | 授课教师 Instructor(s) | YU, Ming |
| 6. | 是否面向本科生开放 Open to undergraduates or not | NO |
| 7. | 先修要求 Pre-requisites | (如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.) NO |
| 8. | 教学目标 Course Objectives | <p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>The objective of the course is to give students a general overview and roadmap of creating cutting edge technology innovation. It also attempts to give students a deeper understanding how engineering practice works, how to become best engineering performers. The concept of critical thinking, decision making and intellectual property (IP) rights, protection, and management from a technology development perspective will be introduced. Through case studies, students will appreciate that decisions about which technologies to develop, the development process, the management aspects and how to turn them into real products in projects. The aspect of finance, market study and commercialization will also be covered. Lectures, in class discussions, debates and group projects are used to deliver the course content</p> |
| 9. | 教学方法 Teaching Methods | <p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>To be delivered by an industry veteran, lectures, in class discussions, debates and group projects are used to deliver the course content.</p> |
| 10. | 教学内容 Course Contents | (如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.) |
| | Section 1 | Introduction and success in engineering |
| | Section 2 | Future of EE with a Guest Lecture 1 |
| | Section 3 | Critical thinking |
| | Section 4 | SWOT & Decision Making |

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| Section 5 | Group Presentations 1 |
| Section 6 | Intellectual Property 1 |
| Section 7 | Problem Solving and Innovation |
| Section 8 | Intellectual Property 2 |
| Section 9 | Product Dev and Design Process |
| Section 10 | Project Management, Quality/ISO/6 sigma |
| Section 11 | Technology Commercialization and Start-up with Guest speaker 2 |
| Section 12 | Intellectual Property 3 |
| Section 13 | Group Presentations 2 |

11. 课程考核

Course Assessment

(① 考核形式 Form of examination; ②. 分数构成 grading policy; ③ 如面向本科生开放, 请注明区分内容。
If the course is open to undergraduates, please indicate the difference.)

Attendance 10% (Less 50% = Fail)

Participate in quiz, Q&A, group discussion 20%

Assignments: 20%, Final 30%

Individual Presentation: 20%

12. 教材及其它参考资料

Textbook and Supplementary Readings

Course packs in English