朝陽科技大學 098學年度第1學期教學大綱
Fundamentals of Materials Science and Engineering 材料科學

當期課號	1640	Course Number	1640
授課教師	徐暐亭	Instructor	Shu,Wei Ting
中文課名	材料科學	Course Name	Fundamentals of Materials Science and Engineering
開課單位	營建工程系(四日)二A	Department	
修習別	選修	Required/Elective	Elective
學分數	2	Credits	2
課程目標	讓學生藉由解說與專題小組報告，瞭解材料科學與工程之重要，主要內容包括材料科學與工程緒論、奈米材料與科技、金屬材料、非金屬材料、有機高分子材料、複合材料等，並包含新能源材料、綠建材和再生材料。	Objectives	Objectives: The course covers the fundamentals of the materials science and engineering through teaching explanation and group report which including introduction of materials science, metal materials, non-metal materials, organic polymer material, composite materials, new energy materials, green construction and recycle materials. The course also includes nano materials and nano technology.
教材	a. 金文森,綠色建材概論,五南書局,2008 b. Foundations of Materials Science and Engineering, by William F. Smith, McGraw Hill., 3rd Edition, 2003 c. Fundamentals of Materials Science and Engineering, 2nd ed. Author: W. D. Callister, Jr.Publisher: John Wiley & Sons, Inc. d. Introduction to Materials Science for Engineers, 6th ed., James F. Shackelford, Pearson Education International. e. Materials Science and Engineering – An Introduction, by William D. Callister, Jr., John Wiley &Sons, Inc., 6th Edition, 2003. f. 材料科學與工程 簡仁德等譯 歐亞書局 g. 工程材料科學 劉國雄等編著 全華圖書 h. 材料科學與工程 蔡丕椿等編譯 全華圖書	Teaching Materials	a. 金文森,綠色建材概論,五南書局,2008 b. Foundations of Materials Science and Engineering, by William F. Smith, McGraw Hill., 3rd Edition, 2003
成績評量方式	期中考 隨堂小考 作業 期末考 學習態度	Grading	Mid-term Exam quizzes Homeworks Final Exams Learning Attitude
教師網頁			
教學內容	內容涵蓋了材料科學緒，奈米材料，金屬材料，非金屬材料，高分子材料，複合材料，能源材料，再生材料，綠建材	Syllabus	The course covers the introduction, nanometer materials, metal materials, nonmetallic materials, macromolecule materials, composite materials, new energy resources materials H.recycle materials I.green materials

尊重智慧財產權，請勿非法影印。