

IEEM2080 Manufacturing Processes

Instructor: Professor Chih-Hsing Chu (瞿志行), First Engineering Building, Room 823, 5742698

Class Time: Monday 13:20-15:10, Thursday 13:20-14:10

Course Website: TBA

TA: 郭奇龍，鄭智鴻 Room 708-1, 42937

Course Description: Introduction to modern manufacturing processes of metals, with focuses on understanding material properties, basic concepts (processes, equipment, capabilities, and limitations) of each manufacturing process, selection of process parameters, and product design issues. The topics covered in this course include material structure, metallurgical properties, mechanical behaviors, heat treatment, casting, injection molding, powder metallurgy, metal forming, and metal cutting.

Textbook: Fundamentals of Modern Manufacturing, M.P. Groover, 4th-Edition, John Willy & Sons, 2007

References:

1. Manufacturing Engineering and Technology, S. Kalpakjian and S. Schmid, Fourth Edition, 2001, Prentice-Hall.
2. Mechanical Metallurgy, G.E. Dieter, McGraw-Hill, 1988.

Grading: Homeworks (30%) + Midterm (30%) + Final Exam (35%) + Class Participation (5%)

Policies:

1. All the class-notes will be posted prior to the class and please print it out by yourselves.
 2. All exams will be held in closed book and closed notes. Relevant formulas will be provided.
 3. Most reading materials, homework, exam, and notes are in English.
 4. Homework is individual assignment. Any homework not handed in timely is considered late and the grade of the homework will be reduced by 50%.
 5. Several video-watching sessions will be arranged and their contents will be included as exam/homework materials.
 6. Please turn off your cell phone during the class time.
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