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: 張峻皓 Room 727, 33931

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

Grading: Homeworks (30%) + Midterm (30%) + Final Exam (40%) + Class Participation (TBD)

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 teaching materials, homeworks, exams, 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 try to avoid use of cell phone during the class time.