

MEC 225: Fundamentals of Machining Practices, Engineering Drawing Reading Fall 2017

Instructors:

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Lab. IGC, MEC Shop B-1093

Times: Tuesday 09:00AM – 11:00 AM

Dates: 8/28/2017~

Location: B 1093 / Student Machine Shop, Global Campus

Course Description:

"Hands-on experience in the fundamentals of Engineering Drawing Reading, Cording of the Marching Center, including metrology tools and devices, sheet metal working using papers, drilling, reaming, tapping, turning, boring, milling, welding. This course has an associated fee for provide the Programing Manuel of the FANUC turning Center and Engineering Drawing Reading, Materials etc.

Pre- or Co-requisite: None

Required Course Materials and Fees: The laboratory fee for this course is 50,000 KRW paid as part of your tuition and fees.

1. Impact Resistant Safety Glasses will be provided
2. Dial or Digital Caliper will be provided

Attendance Policy:

Attendance for this course is mandatory. A student who has missed time amounting to 20% of the course will be given a grade of "F". There will be no make ups available for missed class time.

Behavior Policy:

The Instructor reserves all rights and privileges to dismiss the student from the classroom at any time for any reason. Grounds for dismissal include, but are not limited to, failure to follow the Instructor's directions, disrespect for lab equipment, and unruly behavior. A dismissal of this kind will result in a grade of zero for that day's work. There will be no make ups available for class time or assignments missed due to this policy.

Grading: Attendance: 20%

Safety: 10%
 Housekeeping: 10%
 Shop Performance: 30%
 Term Projects: 30%

Course Learning Objectives:

1. Understand and develop the habit of following all safety rules.
2. Use and read calipers and gages for dimensional accuracy.
3. Ability to appropriately select hand tools such as hand drills, reamers, bite, etc.
4. Ability to perform basic operation of a CNC Machining Center.
5. Ability to perform basic cording using the Turning Center.
6. Ability to use a drill press for different drilling
7. Ability to use a sheet metal shear and brake.

Lecture/Lab Schedule:

Week 1	<ul style="list-style-type: none"> ■ Review of Syllabus, Introduction to Course, Drawing Reading ■ Overview of General Safety Practices & Housekeeping 	Remarks
Week 2	<ul style="list-style-type: none"> ■ Introduction for Engineering Drawing, ■ Industrial Engineering Drawing 	
Week 3	Views, Orthographic Projection, 3 & 3 view Drawing	
Week 4	Section View, Detail and Assembly Drawing	
Week 5	Dimensioning & Tolerancing, Dimension Hales	
Week 6	Surface Texture, Welding Symbols, Pipes, Gears,	
Week 7	Geometric Tolerance, Datum, Location, Screw Thread specification	
Week 8	Midterm report & presentation	
Week 9	Introduction to MC (Machining Center) Cording	
Week 10	Continued Machining on Mill	
Week 11	Last Session Machining	
Week 12	Individual Q&A for project	
Week 13	Open Lab / MC working	
Week 14	Open Lab / MC working	
Week 15	Open Lab / Collection of Projects	