SYLLABUS FOR ENGINEERING 100
HJ(spr/2012)

COURSE NAME

Engineering 100 – Elements of Engineering Drawing.

CATALOG DESCRIPTION

Drawing survey course for students who lack necessary high school experience. Study and drafting techniques in the use of instruments, geometric construction, multi-view drafting, pictorial drawing, charts and graphs. Writing assignments, as appropriate to the discipline, are part of the course. 2 lecture and 2 lab hours per week.

CREDIT HOURS: 3 hours

PREREQUISITE: None

GENERAL OBJECTIVES

1 To provide the training required by Engineering, Mechanical Technology and Architecture students who have not had any high school mechanical drawing experience or insufficient high school drawing experience.
2 To provide the training required by any students who desire to improve their drawing skills for various reason.
3 To provide the training required by students who desired to prepare for a career in drafting, although they have not had any high school drawing or insufficient high school drawing experience.

SPECIFIC OBJECTIVES

1 To prepare in the fundamental layout and lettering techniques required in Engineering Design Graphics.
2 To prepare students in many of the accepted conventional methods of representation and dimensioning techniques.
3 To provide students with practical experience in casting and machining design layouts.
4 To provide students with practical experience in making detail and assembly drawings for the shop.
5 To instill in the students a recognition of the requirements of "complete work" which requires

TEXTBOOK:

Engineering Graphics with AutoCAD 2007 by James D. Bethune. Pearson/Prentice Hall

Learning Outcomes for Engineering 100

At the completion of this course, the successful student will be able to:

®Use the basic Commands in AutoCAD to draw geometric figures.

®Interpret the blueprints of mechanical engineering drawings.

®Construct principal views of mechanical objects.

®Place basic dimensions on drawings.

Publisher.

COURSE PLAN

Two hours per week of general group lectures and two one-hour drawing periods per week. Further lecturing as required is given in the drawing periods. Fifteen class plates are assigned. An average of six hours per week of drawing and study is required outside of class.

ASSIGNMENTS

Study and drawing assignments from the text and from prepared assignment sheets per the attached study and assignment schedule.

TESTS AND FINAL EXAMINATION

1. One-hour objective tests are administered at the end of each unit.

   Tests consist of 3 parts:
   Part I is based upon understanding of facts.
   Part II is based upon understanding of the unit.
   Part III is based upon skills and abilities developed in the study of the unit.
   Maximum score is 100 percent.
   Median determined for each test.

2. Final Examination

   Four-hour objective test administered at the end of the semester.
   Form is the same in administration and analysis as the unit tests.

SYSTEM OF GRADING

92 – 100	A
86 – 91	B
80 – 85	C
70 – 79	D
Below 70	F

Assigned plates count for 80 percent of the final grade.
Tests and Exams count for $_{20}$ percent of the final grade.
Final grade 100 percent of the final grade.

METHODS OF TREATING INDIVIDUAL DIFFERENCES

1 Individual instruction for students who need and desire help.
2 Supplementary problems and projects for the superior

VISUAL AIDS

1 The Opaque Projector is used to discuss prepared drawings and textbook illustrations.
2 Motion pictures are used to augment lectures in selected topic areas.
3 Projecturals are available for the purpose of illustrating selected lecture topic areas.
4 Examples of casting patterns, castings, forgings, stampings, die lectures and student inspection.

SUGGESTED REFERENCE

Technical Drawing by Gieseke, Mitchell, Spencer and Hill.