



FUNDAMENTALS OF ENGINEERING GRAPHICS, MEC K152/3

Fall 2011 Syllabus

Friday, Room D126, 1:00 – 6:15 PM

Instructor: Prof. Wanda Short
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Office Hours: Tues/Thur 1:00 – 2:00 PM; Wed 3:00 – 4:00 PM; Other Dates/Times by Appointment

Course Descriptions:

MEC* K152 (1 CREDIT HOUR) Fundamentals of Engineering Graphics

Prerequisite: MAT K095 or higher; Corequisite: MEC* K153*

This course teaches the basic concepts of orthographic projection, isometric, and oblique drawings and basic drafting terminology. Emphasis will also be placed on freehand sketching using the above concepts and terminology. Basic principles of simplified board drafting practices will be covered. A major component of this course will focus on descriptive geometry which will nurture the visualization skills of students by identifying points, planes, and perpendiculars in various perspectives. Some of the techniques will be accompanied with CAD as a comparison.

MEC * K153 (2 CREDIT HOURS) Fundamentals of Engineering Graphics Lab

Prerequisite: MAT K095 or higher; Corequisite: MEC* K152*

In this lab, students will apply the fundamentals of engineering graphics through solving application problems on the drafting board and on the computer using Auto CAD techniques.

Method:

The course will consist of a lecture followed by a lab. Both the lecture and lab will consist of lectures, simulations and class discussion.

Textbook:

Engineering Design Graphics, 12th edition, Earle, James H., ISBN: 9780132043564

Additional Minimum Required Materials:

- Engineers and Architects scales (one each)
- Pad of 8 ½ x 11 grid paper
- Mechanical drafting pencil (2H) and replacement leads (2H)
- Drafting eraser and eraser shield
- 6-inch, 90-45 triangle
- 6-inch, 30-60 triangle
- Calculator

Instructor Assistance:

Seeking help from the instructor outside of class is encouraged if you are having difficulty understanding course material. Feel free to Email/call for an appointment during office hours.

Academic Integrity:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor. A grade of "0" may be assigned upon infraction of this policy.

Attendance:

This course is designed in such a way that a student should get more from the in-class activities than from the textbook alone. Therefore, students are expected to attend class regularly. Though students will not be penalized for non-attendance, they will be responsible for material covered in their absence. It will be the student's responsibility to determine what assignments have been missed and to ensure that they are made up in a timely manner. Attendance will be noted for each class and may be used for extra-credit of 1 to 3 points in determining final grades.

Class Room Policies:

Cell phones brought to class shall be off and out of site (no texting). Language and behavior that is disrespectful, or disruptive, to others is unacceptable; Students should refer to their Student Handbook for examples of such behavior as well additional school policies.

Assignments:

Quizzes, homework or exams missed for any reason cannot be made up unless **prior** arrangements have been made with the instructor. Assignments not received on date due may result in alternate assignment with reduction of grade.

Grading Policy (Lecture/Lab):

- 50% Quizzes (4)
- 10% Homework
- 25% Portfolio
- 15% Final Exam

100% Total

Portfolio Course Requirements:

Students will assemble a **notebook**, to be made up of handouts distributed at the beginning of each class. A 3-inch "*Slant-ring*" notebook with plastic sheet protectors is recommended – this will be a good resource for future reference. This will also be the primary basis for student's portfolios, which shall include all original and corrected homework and class assignments; and any other assigned projects.

Withdrawal:

A student who finds it necessary to discontinue a course must complete a "Withdrawal Request Form" available in the Registrar's office within the time limits of the semester calendar. Students who do not withdraw, but stop attending will be assigned an "F" signifying a failing grade.

Disabilities Statement:

If you are a student with a disability and believe you will need accommodations for this class, you must contact the Disabilities Counseling Services at 860/823-2830. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. The instructor cannot provide accommodations until an accommodation letter from the Disabilities Counselor is received.

Lecture/Lab Schedule**FUNDAMENTALS OF ENGINEERING GRAPHICS, MEC K152/3****Fall 2011 Syllabus****Friday, Room D126, 1:00 – 6:15 PM**

Date	Class/ Lab #	Topic	Reading	Homework
Aug 26	1	Over-view (Introduction) Elements of a Drawing	Chap 13, All Sections	
Sep 2	2	Preliminary Basics Lines, Scales, Descriptive Geometry	Section 26.3 Section 10.5	Homework #1 due
Sep 9	3	Information Conveyance Types of Drawings (Ortho/Iso/Axo, etc.)	Sections 14.1 – 14.2 Sections 25.1 – 25.5	Homework #2 due
Sep 16	4	Manufacturing Drawings Arrangement, Blocks, Output types	Sections 23.1 – 23.8	Homework #3 due
Sep 23	5	Orthogonal Drawing Line Projection, Visualization	Sections 14.3 – 14.12	Homework #4 due
Sep 30	6	Orthogonal Drawing (<i>Continued</i>) Line Types, Weights, Scales	Sections 14.3 – 14.12 (<i>Continued</i>)	Homework #5 due
Oct 7	7	Iso/Axonometric Drawing Oblique Projection, Auxiliary	Chap 15, All Sections	Homework #6 due
Oct 14	8	Iso/Axonometric Drawing (<i>Continued</i>) Exploded/Assembly Detail	Chap 16, All Sections	Homework #7 due
Oct 21	9	Geometric Dimensioning Decimal, Fractional, Coordinates	Chap 20, All Sections	Homework #8 due
Oct 28	10	Primary Auxiliary Views Descriptive Geometry	Chap 27, All Sections	Homework #9 due
Nov 4	11	Geometric Tolerancing International, Datum, Feature	Chap 21, All Sections	Homework #10 due
Nov 11		Veteran's Day – Classes Not in Session		
Nov 18	12	Welding Drawings Types, Joints, Symbols	Chap 22, All Sections	Homework #11 due
Nov 25		Thanksgiving Recess – College Closed		
Dec 2	13	Sheet Metal Material, Bends, Seams, Edges	Chap. 19, All Sections	Homework #12 due Portfolio Reviews
Dec 9	14	Final Portfolio Due & Review For Final	Review	Portfolio Submission
Dec 16	15	Final Exam		