

# EDG 1211

## Engineering Graphics I

### Course Syllabus

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**Professor:** Randy Emert  
**Office #:** Q-151  
**Phone #:** (678) 915-7406  
**Office Hours:** M, W 1:00-2:00  
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#### Course Description

This course is a broad introduction to mechanical design using Computer-Aided Design (CAD) tools and freehand sketching fundamentals. Emphasis is placed on a thorough understanding of projection principles and the visualization of exact space conditions relevant to 3D modeling. The concept of 3D problem solving techniques using CAD is stressed. There are no prerequisites for this course.

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#### Course Outcomes

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

1. Create multi-view orthographic drawings by hand sketching and CAD
  2. Create and manage CAD files
  3. Apply geometric construction techniques to solve graphical problems
  4. Apply and produce section, auxiliary, and detail views
  5. Dimension and annotate engineering drawings per ANSI/ASME standards
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#### Course Outline

This outline covers the major concepts taught in this course. Your professor may apply these areas in a different order. In addition, other subject areas may be added to the list.

1. Multi-view Orthographic Projection
  2. Isometric Views
  3. Introduction to CAD
  4. Geometric Constructions
  5. Dimensioning
  6. Section Views & Auxiliary Views
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#### Grading Policy

The course grade is broken down as follows:	<b>Total Score</b>	<b>Grade</b>
Drawings	40%	90-100
Sketch Notebook	15%	80-89
Midterm	20%	70-79
<u>Final Exam</u>	25%	60-69
<b>TOTAL</b>	100%	Below 60

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## **Materials and Tools**

1. Technical Drawing with Engineering Graphics, 15<sup>th</sup> Edition. Prentice Hall, 2016. ISBN 978-0134306414
2. 8.5" x 11" grid paper (light blue grid lines; four, five, eight or ten grid lines per inch)
3. Mechanical pencil (.5mm or .7mm)
4. White vinyl eraser
5. Calculator
6. USB flash drive

## **Procedures and Requirements**

The course consists of lectures and laboratory sessions, with new subject areas covered through reading assignments, lectures, and demonstrations. Each lecture is followed by drawing assignments using the theory and principles of the subject areas. Students are required to attend the class during the assigned times. Open lab sessions scheduled throughout the week are also available for the student to complete assignments. These open labs are monitored and are available on a "first come, first served basis. **Students may use the graphics labs only to work on specific assignments from the MET department.**

Attendance is expected and required during all class and lab periods. **If you miss a class, it is your responsibility to get the assignments for that day and to have your homework turned in on time.** Any student needing additional help should make an appointment with his/her professor. In addition, there are ample open lab sessions available for the student to complete assigned work.

## **Drawings**

All assigned drawings are to be turned in to D2L. Any drawing turned in after the assigned due date and will not be accepted unless prior arrangements have been made and documented through email. Drawings are graded on technical accuracy, layout, and professional appearance.

## **Sketch Notebook**

A sketching notebook will be required. Freehand sketching and engineering graphic visualization assignments will be assigned throughout the semester. The notebook is to be turned in on random days and checked. A final grade will be received for the sketching notebook which is 15% of the final grade.

## **Exams**

A mid-term exam will be given. In addition, a final exam or final project will be given or assigned. Each exam will be comprehensive and will include previous reading assignments, lectures, and drawings. There is a time limit on each exam. Exams can only be made up with a legitimate excuse and at the professor's discretion. A grade of zero will be assigned to any missed exam. No exam will be dropped.

## **Attendance**

Attendance is extremely important. Sketch Notebooks will be picked up randomly and checked without prior notice. A notation will be made and will be included in the final grade for the Sketch Notebook.

## **Student Conduct**

Academic dishonesty and non-academic misconduct, in any form, is not tolerated in the classroom. This includes, but is not limited to, cheating, plagiarism, and disorderly conduct. Please refer to sections in the Undergraduate Catalog on Disruptive Behavior and Academic Dishonesty.

## **ADA/504 Compliance**

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the ATTIC counselor working with disabilities at (678) 915-7361 as soon as possible to better ensure that such accommodations are implemented in a timely fashion

## **FERPA**

The Family Education Rights and Privacy Act is a federal law designed to protect the privacy of educational records by limiting access to these records, and precludes Kennesaw State University from providing information regarding the student to anyone without written authorization. Examples of records not released are grades; grade point average; the specific number of hours/credits enrolled, passed, or failed; Social Security Number; student ID number; name of parents or next of kin; and/or residency status.

## **Ethics/Sexual Harassment Policy**

Sexual harassment in any situation is reprehensible. It subverts the mission of the University, and threatens the careers of students, faculty, and staff. It is viewed as a violation of Title VII of the 1964 Civil Rights Act as amended by the 1991 Civil Rights Act. Sexual harassment will not be tolerated at KSU.

Kennesaw State University is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex, national origin, disability, age, sexual orientation, or veteran status. In adhering to this policy, the University abides by the requirements of Title IX of the Education Amendments of 1972; by Title VII of the Civil Rights Act of 1964, as amended by the Civil Right Acts of 1991; by Sections 504 and 504 of Rehabilitation Act of 1973; by Executive Order 11246, as amended by 38 U.S.C. 2012; the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

This policy on sexual harassment applies to the entire University and to the conduct of students, faculty, and staff alike.