

# Hudson County Community College

**Course:** EGS 101 – 01

**Course Title:** Fundamentals of Engineering Design

**Credit:** 2

**Instructor:**

**Day(s) and Time (s):**

**Location**

**Office Hours:**

**Office Location:**

**Email:**

**Course Description:** The course is designed to familiarize students with technical drawing and design, orthographic projections, perspective, freehand sketching, instrumental drawing, tolerance, sectional views, descriptive geometry. Students are introduced to computerized drawing Pro-Engineer software and perform some projects using this software. Students are required to work on an open ended engineering project using engineering graphics principles and techniques.

**Homework:** Homework assignments are given every week.

**Course Prerequisite:** MAT 100 or Equivalent

## **Student Learning**

**Outcome:** Course Objectives: Upon completion of this course you should be able to:

- Construct various geometric shapes and divide angles and circles.
- Sketch top, side, and perspective of objects.
- Construct the third view given two views.
- Show dimensions on linear and angular views and sketches.
- Apply tolerance where required.
- Sketch lines, curves, angles, views using the commercial software Pro-Engineer or AutoCAD.

- Design text and dimensions using software.
- Describe digital sketching.
- Apply drawing techniques to an engineering project.

**Text Book:** “Engineering Design Graphics Sketching, Modeling, and Visualization” 2<sup>nd</sup> Edition, John Wiley Publishing

**Author(s):** James M. Leake & Jacob L. Borgerson

**ISBN-13:** 978-1-118-07888-4

**Audiovisual Materials and Computer Software**

ProEngineer: A CAD based drawing software available on all computers in the designated software.

**Book Purchase:** Since we use the book extensively in and out of the class, you must buy them before our second meeting. In case you need to wait for the book voucher, it is your responsibility to find a way to make copies of the readings assigned from the books. Any student who has true financial need is eligible to apply for a book scholarship Through the Office of the Dean of Students located at 70 Sip Avenue.

**Attendance:** The college policy is generally that a student may fail a course due to lack of attendance if s/he missed more than 6 hours of instructional time for a 3-credit course.

<b>Grading Policy:</b>	Two exams	80 points
	Class Work	5 points
	Home Work	5 points
	Class Participation	10 points

You are required to attend all classes even if you get A in first two tests.

**Breakdown of Grading:**

100 - 94 = A	69 - 64 = C+
93 - 90 = A-	63 - 54 = C
89 - 84 = B+	53 - 50 = D
83 - 75 = B	Below 50 = F
74 - 70 = B-	

**Cell Phone Use**

**Policy:** Cell phones should be on manner mode. In case of emergency, notify me and then leave. Leaving classroom for non-emergency calls will result a zero grade in one test. **NO texting during lectures or exams! Cell phones may NOT be used during exams**

**Mandatory Use of HCCC Email Address:** Members of the HCCC community are required to check their official HCCC email address in order to stay current with College and course communications. All college business communication between faculty, students, and staff must be sent via an official HCCC email address. If an employer or student elects to forward or link his/her HCCC email to a separate and private account, that individual remains responsible for all material transmitted to that account. Employees of HCCC shall not be responsible for any material that remains undelivered, due to defects in the private non-HCCC accounts. Failure in the operations of private email accounts shall not be cause for excuse from communications between the students and the employee. Students that encounter difficulty with HCCC email should view the FAQ's section on the Portal.

**Incomplete:** An INCOMPLETE grade for the course is given under specific conditions when a student, because of serious and unexpected reasons, cannot complete the requirements of the course. For example, if a student did not attend the final because of illness his or her excuse must be verified by a physician. Other absences from other assigned activities must be made up at another appointed time. To arrange for an incomplete grade, the student must see the instructor before final exam, so proper documentations could establish and submitted to Division and The office of Academic Affairs.

**Disability Support Services:** Students with disabilities who believe that they might need accommodations in this class are encouraged to contact Disability Support Services at (201) 360-4157, as soon as possible to better ensure that such accommodations are implemented in a timely fashion. All disabilities must be documented by a qualified professional such as a Physician, Licensed Learning Disabilities Teacher Consultant (LDTC), Psychiatrist, Psychologist, Psychiatric Nurse, Licensed Social Worker or Licensed Professional Counselor, who is qualified to assess the disability that the student claims to have and make recommendations on accommodations for the student. All information provided to the Disability Support Services Program will be confidential between the program, professors involved with the student, and individual student.

## **Academic Integrity Standards:**

Academic integrity is central to pursuit of education. For students at HCCC, this means maintaining the highest ethical standards in completing their academic work. In doing so, students earn college credits by their honest efforts. When they are awarded a certificate or degree, they have attained a goal representing genuine achievement and can reflect with pride on their accomplishment. This is what gives college education its essential value.

### **Violations of the principals of academic integrity include:**

- Cheating on exams
- Reporting false research data or experimental results
- Allowing other students to copy one's work to submit to instructors
- Communicating the contents of an exam to other students who will be taking the same test
- Submitting the same project in more than one course, without discussing this first with instructor
- Submitting *plagiarized* work. *Plagiarism* is the use of another writer's words or ideas without properly crediting that person. This unacknowledged use may be from published books or articles, the Internet, or another student's work.

### **Violation of Academic Integrity:**

When students act dishonestly in meeting their course requirements, they lower the value of education for all students. Student who violate the college's policy on academic integrity are subject to failing grades on exams or projects, or for the entire course. In some cases, serious or repeated instances of academic integrity violations may warrant further disciplinary action.

Detailed information on the College's Academic Integrity policy may found in the *HCCC Student Handbook*. The handbook also contains useful information for students on completing research projects and avoiding plagiarism.

# Classroom Recording Policy at HCCC

## Student Classroom Recording Policy

- Hudson County Community College prohibits the audio-visual recording, transmission, and distribution of classroom sessions. Classes may only be recorded with the advance written permission of the instructor. The Hudson County Community College classroom recording policy must be listed in all syllabi.
- All classroom recordings can only be used for academic purposes by students enrolled in that class. Recordings may not be shared, reproduced, or uploaded to public websites or other mediums, and these recordings may contain copyrighted material and are prohibited from any form of commercial use.
- All students and guests must be informed that the class may be recorded. Due to issues related to privacy and the possible inhibition of student participation, instructors should be mindful of the effects of permitting classroom recording.
- Instructors should retain electronic or paper copies of their written consent to grant classroom recordings.
- Students must destroy their recordings at the end of the semester.
- Students who are granted permission to record their class by the office of Disability Support Services should inform the instructor beforehand and are subject to the policies outlined in this document.
- Violation of this policy is subject to disciplinary action listed under the code of conduct as included in the Student Handbook.

## Instructor Classroom Recording Policy

- Instructors may record their classes if students are informed in writing in advance that recording will take place. Instructors may distribute their own lectures, but this must be limited to the lecture portion of the class. Recordings of student presentations or activities may be used in the class if the students are notified in advance of the recording. Recordings of student presentations or activities may not be distributed in any way without the advance written consent of the students.

Successful people access support from others when needed. Hudson County Community College has many supportive services available to help you meet your goals. You are encouraged to contact your instructors or other professionals on campus. Below are resources available to you.

**IN AN EMERGENCY, PLEASE CONTACT SECURITY or 911.**

	<b>Journal Square Campus</b>	<b>North Hudson Campus</b>
<b><u>Counseling Services</u></b> <a href="mailto:counseling@hccc.edu">counseling@hccc.edu</a>	201-360-4150 A Building, Floor 2 <a href="https://myhudson.hccc.edu/advisement">https://myhudson.hccc.edu/advisement</a>	201-360-4150 Enrollment Center, Floor 1 <a href="https://myhudson.hccc.edu/advisement">https://myhudson.hccc.edu/advisement</a>
<b>The National Suicide Prevention Lifeline: 1-800-273-8255</b> <b>Crisis Text Line: Text HELLO to 741-741</b>		
<b><u>Advising Services</u></b> <a href="mailto:advising@live.hccc.edu">advising@live.hccc.edu</a>	201-360-4150 A Building, Floor 2 <a href="https://myhudson.hccc.edu/advisement">https://myhudson.hccc.edu/advisement</a>	201-360-4150 Enrollment Center, Floor 1 <a href="https://myhudson.hccc.edu/advisement">https://myhudson.hccc.edu/advisement</a>
<b><u>Career Development</u></b> <a href="mailto:career@hccc.edu">career@hccc.edu</a>	201-360-4181 A Building, Floor 3 <a href="https://myhudson.hccc.edu/career-development">https://myhudson.hccc.edu/career-development</a>	201-360-4181 Floor 2, Room 204 <a href="https://myhudson.hccc.edu/career-development">https://myhudson.hccc.edu/career-development</a>
<b><u>Disability Support Services</u></b> <a href="mailto:dss@hccc.edu">dss@hccc.edu</a>	201-360-4157/4163 A Building, Floor 2 <a href="https://myhudson.hccc.edu/dss">https://myhudson.hccc.edu/dss</a>	201-360-4157/4163 Enrollment Services, Floor 1 <a href="https://myhudson.hccc.edu/dss">https://myhudson.hccc.edu/dss</a>
<b><u>Library</u></b> Journal Square <a href="mailto:librarian@hccc.edu">librarian@hccc.edu</a> North Hudson <a href="mailto:librarynhc@hccc.edu">librarynhc@hccc.edu</a>	201-360-4360 L Building, Floor 1 <a href="http://www.hccclibrary.net/">http://www.hccclibrary.net/</a>	201-360-4605 Floor 3 <a href="http://www.hccclibrary.net/">http://www.hccclibrary.net/</a>
<b><u>Tutoring Center</u></b> <a href="mailto:tc@hccc.edu">tc@hccc.edu</a>	201-360-4187 Lower Level of Library Building <a href="https://myhudson.hccc.edu/tutoring">https://myhudson.hccc.edu/tutoring</a>	201-360-4623 Floor 5, Room 511 <a href="https://myhudson.hccc.edu/tutoring">https://myhudson.hccc.edu/tutoring</a>
<b><u>Writing Center</u></b> <a href="mailto:wc@hccc.edu">wc@hccc.edu</a>	201-360-4370 J Building, Room 204 <a href="https://myhudson.hccc.edu/tutoring">https://myhudson.hccc.edu/tutoring</a>	201-360-4779 Floor 7, Room 703A <a href="https://myhudson.hccc.edu/tutoring/">https://myhudson.hccc.edu/tutoring/</a>

# Fundamentals of Engineering Design (EGS 101)

Fall, 2021

## *Tentative Course Schedule*

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1. Introduction to the course, grading policy, course Requirements.  
**Lettering:** Guidelines for Lettering  
Practices work sheets (LTR-1,2,3,4)
2. **Sketching:** Lines, Circles, Arcs,  
Isometric Sketching  
Practices work sheets (SKT-1,2,3,4)  
Practices work sheets (SKT-6,7,8)
3. **Orthographic Projection:** Planes and  
Surfaces, Curved Surfaces
4. **Orthographic Projection:** (Continued)
5. **Isometric Drawings:** Inclined Surfaces,  
Oblique Surfaces, Curved Surfaces
6. **Oblique Drawings:** Cavalier Oblique, Cabinet  
Oblique, Curved Surfaces  
  
**Sections:** Full Sections, Half Sections, Offset  
Sections, Revolved/Removed Sections, Broken-Out  
Sections, Aligned Sections
7. **Dimensioning:** Basic Rules
8. **Exam 1 (Midterm)**
9. Introduction to 3D Printers  
Introduction to ProEngineer Software
10. Modelling 1 (ProEngineer / AutoCAD)
11. Modelling 2 (ProEngineer / AutoCAD)

12. Modelling 3 (ProEngineer / AutoCAD)

13. -----College Closed (Thanksgiving)-----

14. Modelling 4 (ProEngineer / AutoCAD)

15. Modelling 5 (ProEngineer / AutoCAD)

16. FINAL