

COURSE SYLLABUS

ENGR 1304 (3:2:4)

ENGINEERING GRAPHICS

Computer-Aided Drafting and Design
And Pre-Engineering

Industrial Technology Department and
Mathematics and Engineering Department

Technical Education Division and
Arts and Sciences Division

Levelland Campus

SOUTH PLAINS COLLEGE

Fall 2021

COURSE SYLLABUS

COURSE TITLE: ENGR 1304: ENGINEERING GRAPHICS

INSTRUCTOR: Phyllis Kennon

OFFICE LOCATION Technical Arts Bldg. Room TA-209

AND PHONE/E-MAIL: pkennon@southplainscollege.edu

OFFICE HOURS: By appointment

SOUTH PLAINS COLLEGE IMPROVES EACH STUDENT'S LIFE

GENERAL COURSE INFORMATION:

COURSE DESCRIPTION

Introduction to spatial relationships, multiview projection and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics.

This course provides an introduction to basic computer-aided drawing. Emphasis is placed on drawing setup, creating and modifying geometry, storing and retrieving predefined shapes, placing, rotating and scaling objects, adding text and dimensions and using layers and coordinate systems. A study of input and output devices and plotting and printing to scale is included in the course.

COURSE LEARNING OUTCOMES

Demonstrate knowledge, skills and practical proficiency in the use of CADD systems software and hardware to create, plot and print engineering designs and working drawings. The knowledge and skills obtained in Engineering Graphics (ENGR 1304) will be an essential part of the education required to continue the study of universal Engineering Graphics and Design. Successful students will possess the knowledge and skills to be competent and effective in the subsequent course work that is required for the training of the Engineer or Engineering Graphics and Design Specialist.

SPECIFIC COURSE/INSTRUCTOR REQUIREMENTS

TEXTBOOK & OTHER MATERIALS

Two textbooks are required: (1) AutoCAD 2021, A Problem-Solving Approach, Basic and Intermediate, by Sham Tickoo, ISBN 978-1-942689-86-7. (2) Technical Drawing with Engineering Graphics, 15th edition by Giesecke and others, ISBN-13:978-0-430641-4. No other materials are required.

ASSIGNMENT POLICY

1. All required work must be turned in on time in order for the student to benefit from the corrections and to study for future examinations.
2. All assignments (practical drawing assignments and/or practical drawing test, objective assignments and/or objective test) will be due at **specified times and dates**.
3. Any drawing assignments that are *not* turned in at the specified time and date will immediately receive a grade penalty of 5 points and an additional 10 points per day for each day the drawing is not turned in for grading.

GRADING POLICY/PROCEDURE

1. The average of all the drawing assignments given will be 40% of the total semester grade. Each drawing assignment will be valued at 100 points.
2. Practical drawing assignments will be graded on the following:
 - a. Neatness
 - b. Line Criteria
 - c. Text Criteria
 - d. Dimensioning Criteria
 - e. Choice & Location of Views
 - f. Correctness & Accuracy of Views (shape description)
 - g. Nomenclature
 - h. Printing and Plotting
3. There will be three tests given over the semester, each will be worth 10% of the total semester grade (30% of the total grade). Each test will be valued at 100 points.
4. Review questions on each chapter will be assigned to provide study material for upcoming tests. Total value of review questions will be 15% of the total semester grade. Each set of review questions will be worth 100 points.

5. Final Exam = 15% of the semester grade. The final examination will be a comprehensive exam comprised of practical skills and objective material. Grades will be calculated with 95 as the highest grade for the practical skills part of the examination and 100 will be used to calculate the highest grade for the objective part of the examination.

NOTE: Instructors in the Computer-Aided Drafting and Design program have the prerogative to amend the standard assignment and grading policy. However, the instructor must notify each student in writing of changes made to assignment and grading criterion.

COURSE OUTLINE

TOPICS

1. Orientation
2. Introduction to computer-aided engineering drawing & design systems
3. Basic drawing setup
4. Basic draw command properties
5. Basic modify command properties
6. Status bar properties
7. Standard toolbar features
8. Object display features
9. Text command properties
10. Menu bar properties
11. Layers and layer properties
12. Dimensioning
13. Engineering drawing and design fundamental practices and principles
 - a. alphabet of lines
 - b. geometric construction
 - c. multiview drawing
 - d. sectional views
 - e. auxiliary views
 - f. production drawings (working drawings)
14. Pictorial drawing

15. Basic 3-d modeling

16. Plotting and printing

CLASSROOM POLICIES

DISCLAIMER

The instructor reserves the right to amend any class policies or syllabus content as deemed necessary by South Plains College and will announce such changes ahead of time to the class. If a student has any questions about a change in policy, they have the right to discuss said change with the instructor.

ATTENDANCE

Three absences, for any reason are allowed per semester. Tardies defined as not being present in class within 5 minutes of the start of class, will count as ½ absence. Your grade will drop one letter grade per each absence over the allowable limit. Six absences will be grounds for the instructor to drop the student from the course.

If a student has not participated in a course(s) in any form for a minimum of 3 weeks, without any communication from the student and is earning a solid "F", an administrative withdrawal will be considered. The student will be contacted and encouraged to initiate a student withdrawal. After an additional week, faculty will initiate an administrative withdrawal.

WITHDRAWAL

Any student wishing to drop this class should go through the proper procedure of initiating the withdrawal by obtaining a **drop form** from the Registrar's Office. This form must be signed by the instructor.

COVID-19 POLICIES

When entering a classroom/lab, students must self-screen in accordance with COVID-19 posters. If a student is experiencing any symptoms listed, they must leave the campus.

Students will clean/disinfect desk with wipe AFTER each use.

OTHER POLICIES

Food and drink will be allowed at a student's work station as long as computers are not affected in a negative way. All drinks must be stored away from computer so as not to damage any component. All workstations must be thoroughly cleaned before a student leaves class.

Music is allowed in the classroom during lab time as long as it is played through headphones.

Cellphones are permitted during lab time when used directly for research or class initiatives. If your cell phone rings, please excuse yourself from the class to address the call.

Students should adhere to all other standards established in the SPC Catalog found under *Student Conduct*.

ACCOMMODATIONS

Face Covering Statement

It is the policy of South Plains College for the Spring 2021 semester that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. Such behaviors specifically include the requirement that all students properly wear CDC-compliant face covering while in SPC buildings including in classrooms, labs, hallways, and restrooms. Failure to comply with this policy may result in dismissal from the current class session. If the student refuses to leave the classroom or lab after being dismissed, the student may be referred to the Dean of Students on the Levelland campus or the Dean/Director of external centers for Student Code of Conduct Violation. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN at (806) 716-2376 or dedens@southplainscollege.edu.

Diversity Statement

In this classroom, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disabilities Statement

Any students who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students must present appropriate verification from the SPC Disability Service Office during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodations until appropriate verification from the SPC Disability Service Office has been provided. For more information, you may contact the Disability Services Office (located in the Health & Wellness Center) at [806-716-2529](tel:806-716-2529) or visit <http://www.southplainscollege.edu/health/disabilityservices.php>

Equal Opportunity, Harassment, and Non-Discrimination Statement

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TZ 79336. Phone number 806-716-2360.

South Plains College is dedicated to providing a safe and equitable learning environment for all students. Discrimination, sexual assault, and harassment are not tolerated by the college. The Health and Wellness Center offers confidential support (806-716-2529) and Voice of Hope has a 24-hour hotline (806-763-7273). You are encouraged to report any incidents online at

<http://www.southplainscollege.edu/about/campussafety/complaints.php>

Title IX Pregnancy Accommodations Statement

If you are pregnant, or have given birth within six months, under Title IX you have a right to reasonable accommodations to help continue your education. Students who wish to request accommodations must contact the Health and Wellness Center at 806-716-2529 to initiate the process.

Title IX Sexual and Gender-based Misconduct Statement

South Plains College is committed to maintaining a positive learning, working and living environment and will not tolerate acts of sexual harassment or sexual violence or related retaliation against or by any employee or student. When sexual harassment or sexual violence has occurred and is brought to the attention of a Title IX official, SPC will take steps to end the harassment or violence, prevent its re-occurrence and address its effects. For more information, view the sexual and gender-based misconduct policy.

Campus Concealed Carry

Texas Senate Bill – 11 (Government code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains college buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains college campuses. Report violations to the college Police Department at 806-716-2396 or 9-1-1.

