

**South Plains College**  
**Common Course Syllabus: ENGR 1304**  
**December 2019**

**Department:** Mathematics, Engineering, and Computer Science

**Discipline:** Engineering

**Course Number:** ENGR 1304

**Course Title:** Engineering Graphics I

**Available Formats:** conventional

**Campuses:** Levelland and Lubbock Center

**Course Description:** Introduction to computer-aided drafting using CAD software and sketching to generate two- and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics.

**Prerequisite:** Successful completion with a grade of 'C' or better in MATH 1314

**Credit:** 3 **Lecture:** 2 **Lab:** 4

**Textbook:**

**Supplies:** Please see the instructor's course information sheet for specific supplies.

**This course partially satisfies a Core Curriculum Requirement:** None

**Core Curriculum Objectives addressed:**

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

**Student Learning Outcomes:** Upon completion of this course and receiving a passing grade, the student will be able to:

1. Discuss the basic steps in the design process.
2. Demonstrate proficiency in freehand sketching.
3. Demonstrated proficiency in geometric modeling and computer aided drafting and design (CADD).
4. Communicate design solutions through sketching and computer graphics software using standard graphical representation methods.
5. Solve problems using graphical geometry, projection theory, visualization methods, pictorial sketching, and geometric (solid) modeling techniques.
6. Demonstrate proper documentation and data reporting practices.
7. Complete a project involving creation of 3D rapid prototype models.
8. Function as part of a design team as a team leader and as a team member.

**Student Learning Outcomes Assessment:** A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

**Course Evaluation:** There will be departmental final exam questions given by all instructors.

**Attendance Policy:** Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, **for any reason**, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

**Student Code of Conduct Policy:** Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

**Diversity Statement:** In this class, 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.

**Disability Statement:** Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

**Nondiscrimination Policy:** 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, TX 79336. Phone number 806-716-2360.

**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. To [activate](#) accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or [email cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

**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 and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.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.

**SPC Bookstore Price Match Guarantee Policy:** If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.





**Engineering 1304 – Engineering Graphics**  
**Section 001:** Monday/Wednesday 8:00 AM – 10:40 AM  
**Room:** Technical Arts Building, Room 209, Levelland Campus

### Instructor Information

#### Contact Information

**Instructor:** Evan Vargas

**Phone:** (806) 716-4673

**Email:** [evargas@southplainscollege.edu](mailto:evargas@southplainscollege.edu)

#### Office Hours

Agriculture Building, AG107, Levelland Campus

**Monday/Wednesday:** 10:40 AM – 10:55 AM @ TA209, Levelland  
 12:55 PM – 2:25 PM @ AG107, Levelland

**Tuesday/Thursday:** 10:40 AM – 10:55 AM @ TA209, Levelland  
 2:15 PM – 2:30 PM @ Building 2, 226, Reese

**Friday:** 8:30 AM – 12:00 PM @ AG107, Levelland

### Course Information

#### Textbook

Engineering Graphics Essentials with AutoCAD 2020 Instruction by Kirstie Plantenberg  
**ISBN:** 9781630572624

#### Materials

Flash drive, pencils, erasers, paper, and calipers.

### Grading Policy

<b>Grading Scale:</b>	90-100	<b>A</b>	<b>Weights:</b>	Daily Assignments	25%
	80-89	<b>B</b>		Quiz	15%
	70-79	<b>C</b>		Projects	30% each
	60-69	<b>D</b>		<b>Total</b>	<b>100%</b>
	0-59	<b>F</b>			

### Daily Assignments

Every student must complete daily assignments during class lab time. These drawings will be submitted to the instructor via printing or by Blackboard. Grading will be based on neatness, presentation, and the ability to follow directions. Each assignment will have a due date.

### In-class Quizzes

Quizzes will be given periodically and will cover material presented by the instructor. Quizzes may be handouts or computer based. No make-up quizzes will be allowed for any reason.

## **Projects**

There will be two projects assigned during the semester in lieu of examinations. Projects will be a representation of each student's ability to demonstrate their skills using CAD. Each project will be addressed during class as the semester progresses. Instructions will be outlined and detailed in what is required.

## **Returning Grades**

The instructor will attempt to return any graded assignment by the next class meeting or as soon as possible. Any discrepancies with a particular grade must be contested to the instructor within **two weeks**. If the student does not contest their grade they will forfeit the right for amendments.

## **Classroom Policies**

### **Computer Class Policy**

**ABSOLUTELY NO FOOD ALLOWED.** Drinks must have a threaded cap to be allowed and must be put away when not in use. Music devices during lab assignment times are accepted. Each workstation must be cleaned and straightened before leaving the area.

### **Class Cancellation Policy**

In the event of class being canceled by the school/instructor, the student will be responsible for the lecture material missed. The class will continue on the following class day. All information will be available to the student on Blackboard and/or sent via email.

### **South Plains College Email Policy**

The instructor will only acknowledge, respond, and send emails to your assigned South Plains College email. This ensures the intended recipient receives all correspondence from the instructor. It is the students' responsibility to have their email set up and ready to use by the end of the first week of class.

### **Withdrawal Policy**

To withdraw from this class, the student will need to go to the Admissions and Records office either on the Levelland campus or the Reese Center campus, and fill out a drop notification form. If the student does not initiate the drop on their behalf the instructor will do instead.

## Course Itinerary.

<b>Week 1</b>	Jan. 14	Overview of Autodesk products and Phases of Design. Introduction into AutoCAD2019-2020. Drawing Lines, Rectangles, and Hidden Lines
	Jan. 16	Utilizing the Modify commands and Layer Properties
<b>Week 2</b>	Jan. 21	Creating Circles, Arcs, and Center Lines
	Jan. 23	Dimensioning. Creating a standardized title block.
<b>Week 3</b>	Jan. 28	Drawing orthographic projections: Front, Top, and Right Side Views
	Jan. 30	
<b>Week 4</b>	Feb. 4	Pictorial Drawings – the Isometric view
	Feb. 6	
<b>Week 5</b>	Feb. 11	Section Views
	Feb. 13	Auxiliary Views
<b>Week 6</b>	Feb. 18	Scaling objects and Tolerances.
	Feb. 20	Drawing Threads and Fasteners
<b>Week 7</b>	Feb. 25	Drawing Springs
	Feb. 27	Drawing Gears
<b>Week 8</b>	Mar. 3	Project #1
	Mar. 5	
<b>Week 9</b>	Mar. 10	
	<b>Mar. 12</b>	<b>Project #1 Due</b>
<b>Week 10</b>	Mar. 24	3D Modeling
	Mar. 26	
<b>Week 11</b>	Mar. 31	
	Apr. 2	
<b>Week 12</b>	Apr. 7	Creating Assembly Drawings
	Apr. 9	
<b>Week 13</b>	Apr. 14	Project #2
	Apr. 15	
<b>Week 14</b>	Apr. 21	
	Apr. 23	
<b>Week 15</b>	Apr. 28	
	Apr. 30	
<b>Week 16</b>	<b>May 5</b>	<b>Project #2 Due at 8:00 AM – 10:00 AM</b>