



**Instructor: Evan Vargas**  
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**Office Hours on Levelland Campus:**  
 M: 11:30-1:30 W: 11:30-1:30 F: 9:00-12:00  
*Or by Appointment*

**Engineering 1304 – Engineering Graphics 1**  
**Section 001:** Monday/Wednesday 8:00-10:40 AM  
**Room:** Technical Arts Center, 209, Levelland Campus

**Course Information**

**Textbook** *AutoCAD 2019: A Problem-Solving Approach, Basic and Intermediate* by Tickoo, 25<sup>th</sup> edition, 2019, Purdue University

**Materials** Flash drive, pencils, three ring binder, and ruler/calipers

**Description** This course provides an introduction to basic computer-aided technical drawing. Emphasis on drawing setup, creating and modifying geometry, storing and retrieving predefined shapes, rotating and scaling objects, and adding text and dimensions.

**Purpose** Acquaint student with solutions to different mathematical problems covering algebra, trigonometry, and analytic geometry.

**Requirements** A student should attend all class sessions, take notes, participate in class, complete all lab assignments, and complete drawing projects.

- Learning Outcomes**
1. Demonstrate knowledge, skills, and practical proficiency in using CAD software
  2. Using correct Layouts and Lettering
  3. Understand Visualization and Sketch Objects
  4. Develop Geometry for Modeling and Design
  5. Orthographic Projections
  6. 2D and 3D Drawing Representations
  7. Section and Auxiliary Views
  8. Dimensioning

**Grading**

Weights		Grading Scale	
Portfolio (2)	5%	90-100	A
Daily Assignments	20%	80-89	B
Quiz	15%	70-79	C
Projects	30% each	60-69	D
<b>Total</b>	<b>100%</b>	0-59	F

**Portfolio** Students must organize all course material in a single three ring binder as a portfolio of work completed. This binder should be brought to class every day as it will be periodically checked at random by the instructor during the semester; Assignments and Quizzes must all be separated by a labeled divider.

**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 and the ability to follow directions.

- Quizzes** Quizzes will be given periodically and will cover material presented by the instructor.
- 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 show their skills using CAD software as it would be applicable for future job requirements. Each project will be addressed during class as the semester progresses. Instructions will be outlined and detailed in what is required.

### **Classroom Policies**

- Disclaimer** The instructor reserves the right to amend any class policies as deemed necessary by the instructor or South Plains College and will announce any changes in class. If a student has any questions about a change in policy, please ask the instructor.
- 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 on Blackboard and/or sent via email to be accessed by the student.
- Attendance Policy** Students are expected to attend all classes in order to be successful in this course. The student will be administratively withdrawn from the course when absences become excessive. **If a student is reported absent for three days during the semester without prior consent to instructor or for emergency reasons, that student will be dropped from the course.** If a student should be absent during the schedule class times the student must notify the instructor otherwise any work will be forfeited.
- Withdrawal** To withdraw from this class, the student will need to go to the Admissions and Records office either on the Levelland or Reese Center campus and fill out a drop notification form.
- Email Policy** The instructor will only acknowledge, respond, and send emails to your assigned SPC email. This ensures the intended recipient receives all correspondence from the instructor.
- Final Grading Policy** All grades are rounded from the tenths place, e.g. 80.5 = 81, 80.49 = 80. Upon the submission of grades at the end of the semester. **ALL GRADES ARE FINAL!**
- Returning Grades Policy** The instructor will attempt to return grades by the next class meeting; however, the instructor reserves the right to have at least one (1) week to grade assignments and post grades from the due date.
- Diversity Statement** In this class, the teacher will establish and support an environment that values and nurtures individual and group differences as well as 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** 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

<b>Religious Holy Days</b>	Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the semester ( <b>Friday, February 1<sup>st</sup> 2019</b> ) in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code.
<b>Sexual Misconduct</b>	It is important for students to know that all faculty members are mandated reporters of any incidents of sexual misconduct. Faculty cannot keep information about sexual misconduct confidential if students share that information. SPC offers advisors that students can confidentially seek out in the Health & Wellness Center. These advisors have the best interest in students and information can be accessed on campus or even in the local community.
<b>Campus Concealed Carry</b>	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: <a href="https://www.southplainscollege.edu/campuscarry.php">https://www.southplainscollege.edu/campuscarry.php</a>
<b>Academic Honesty</b>	Students are expected to uphold the ideas of academic honesty; all work that is submitted for grading must be your own. Violation of this policy will result in an F for the assignment(s) and the student dropped with an F letter grade. For more details on what is considered cheating, see the South Plains College catalog.
<b>Equal Opportunity</b>	South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.
<b>Recording Devices</b>	Students are not allowed to use recording devices such as audio or video during class unless approved by the instructor
<b>Resources</b>	Students may utilize free tutoring provided by SPC. Tutoring is available at all SPC campus locations. Please consult with the instructor for further information.
<b>Non-Discrimination Statement</b>	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.

**Course Itinerary**      Planned schedule; subject to change as necessary.

<b>Week 1</b>	January 14	Introduction, what is AutoCAD, drafting, and purposes
	January 16	Phases of design, Problem Identification to Documentation, hand drawing
<b>Week 2</b>	January 21	<b>Martin Luther King Holiday - No Class</b>
	January 23	Introduction to AutoCAD 2019, overview of commands and drawing area
<b>Week 3</b>	January 28	Creating basic shapes, Lines, Arcs, Rectangles, and Circles. Coordinate systems
	January 30	
<b>Week 4</b>	February 4	Creating standardize templates, layouts, and lettering for drawings
	February 6	Drawing 3D objects using 2D visualizations
<b>Week 5</b>	February 11	
	February 13	Utilizing editing commands
<b>Week 6</b>	February 18	Dimensioning
	February 20	Creating Tables and Text
<b>Week 7</b>	February 25	<b>Project #1</b>
	February 27	
<b>Week 8</b>	March 4	
	March 6	<b>Project #1 Due</b>
<b>Week 9</b>	March 18	Tolerancing
	March 20	Auxiliary Views
<b>Week 10</b>	March 25	Section Views
	March 27	Hatch Drawings
<b>Week 11</b>	April 1	Threads, Fasteners, and Springs
	April 3	Gears and Cams
<b>Week 12</b>	April 8	3D Modeling and assemblies
	April 10	
<b>Week 13</b>	April 15	<b>Project #2</b>
	April 17	
<b>Week 14</b>	April 22	<b>Easter Holiday - No Class</b>
	April 24	<b>Project #2</b>
<b>Week 15</b>	April 29	
	May 1	<b>Project #2 Due</b>