

**ENGR 1204 - Engineering Graphics**  
**Course Syllabus (Spring 2026)**

**Instructor:** Dr. Mayzan Isied

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**Office Hours:** Tuesday/Thursday 11 AM – 12:30 PM

By appointment (please email me to RSVP especially if you want to meet via Zoom)

**Lecture Room:** *This course is offered in an online format where ALL of the lectures will be posted online using CANVAS*

### **Course Overview**

This course introduces the fundamental concepts and techniques of engineering graphics, focusing on the application of computer-aided design (CAD) tools for technical drawing and design. Students will learn to create, edit, and manage 2D engineering drawings using AutoCAD, with an emphasis on precision, clarity, and adherence to industry standards. Topics include geometric construction, orthographic and isometric views, dimensioning and annotation, section and auxiliary views, parametric modeling, and assembly drawings. Students will gain hands-on experience in creating templates, plotting, and utilizing advanced drawing tools to design and communicate engineering solutions effectively. The course culminates in a design project where students apply their knowledge to produce professional-grade engineering drawings, preparing them for real-world engineering challenges.

This course emphasizes problem-solving and the use of modern engineering tools, to foster effective communication, technical proficiency, and collaborative skills in an engineering context.

The course is structured in 12 chapters of content that each are designed to span a one-week duration. In each of those chapters, there will be multiple short video lessons that can be viewed online, followed by a homework that can expand on the topics of the lesson.

### **Student Learning Outcomes**

By the end of this course, students will be able to:

- 1. Understand and Apply Foundational CAD Principles**
  - Demonstrate a working knowledge of AutoCAD fundamentals, including basic object construction, dynamic input, and geometric construction tools.
  - (Chapters 1–3, ABET Outcome 1: Apply knowledge of mathematics, science, and engineering).
- 2. Organize and Manage CAD Models**
  - Apply object properties and organizational techniques to manage AutoCAD drawings efficiently.
  - (Chapter 4, ABET Outcome 5: Use techniques, skills, and modern engineering tools necessary for engineering practice).
- 3. Interpret and Produce Engineering Drawings**
  - Create orthographic and multiview drawings and apply dimensioning standards to produce clear, accurate technical drawings.
  - (Chapters 5 and 7, ABET Outcome 2: Design and conduct experiments, analyze and interpret data).
- 4. Generate Advanced 2D Drawings**

- Design and edit 2D isometric drawings, section views, auxiliary views, and parametric drawings to represent engineering components accurately.
- (Chapters 6, 9, 10, and 11, ABET Outcome 2: Analyze and solve engineering problems).

#### 5. Create Templates and Finalized Drawings for Production

- Develop and utilize templates for consistency in plotting and creating final deliverables that adhere to professional standards.
- (Chapter 8, ABET Outcome 6: Communicate effectively).

#### 6. Integrate Assembly Design Concepts

- Apply knowledge of assembly drawing and block creation to produce multi-component technical designs.
- (Chapter 12, ABET Outcome 3: Apply design of systems, components, or processes to meet needs).

### **Academic Dishonesty**

***Representation of other's work as your own will not be tolerated.*** Cheating on examinations, quizzes, and homework and the false representation of work will be interpreted as academic dishonesty. Academic dishonesty will be subject to disciplinary action as outlined by the UT Tyler Student Guide on Conduct and Discipline.

### **Assignments and weights/point values (TENTATIVE- Subject to Change)**

Homework Assignments (12 x 250 pts each)	3000 (60%)
Quizzes (12 x 100 pts each)	1200 (24%)
Design Project (800 pts)	<u>800</u> (16%)
	5,000 (100%)

### **BONUS**

Concrete Canoe Concrete Pouring Day Activities	50 Points
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### **Grading Scale**

A	90% or greater
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	below 59%

### **Homework/ Review Questions**

Homework will be posted on Canvas, and answers should be uploaded as **CAD Files** to the platform. **Failure to submit any homework will result in an incomplete grade until all missing assignments are submitted.**

### **Late Work/ Assignment Policy**

Late Submissions. It is a basic principle of professionalism that **"Professionals are not late"**.

A "COORDINATED LATE" submission occurs when you will miss the suspense for a graded homework assignment, and you contact me in advance. Notification immediately before the submission will not suffice. Point cuts up to the amounts below **may** be assessed for a "COORDINATED LATE" submission:

1. 0-24 hours late, a deduction of 25% of the earned grade
2. 24-48 hours late, a deduction of 50% of the earned grade
3. 48-72 hours late, a deduction of 75% of the earned grade
4. More than 72 hours late No credit. **Assignments must still be submitted.** Failure to submit any homework will result in an incomplete grade until all missing assignments are submitted.

### **Required Textbooks and Readings**

Shih, R. & Jumper, L. (2025). AutoCAD 2026 Tutorial First Level 2D Fundamentals. SDC Publications. ISBN: 978-1-63057-756-8.

## **UT Tyler Honor Code**

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

## **Artificial Intelligence Tools Use**

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

***For this course***, The work submitted by students in this course will be generated by themselves. This includes all process work, drafts, brainstorming artifacts, editing, and final products. This extends to group assignments where students must create collaboratively create the project. Any instance of the following constitutes a violation of UT Tyler's Honor Code: a student has another person/entity do any portion of a graded assignment, which includes purchasing work from a company, hiring a person or company to complete an assignment or exam, using a previously submitted assignment and/or using AI tools (such as ChatGPT).

## **Students' Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

## **Campus Carry**

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

## **UT Tyler: A Tobacco-Free University**

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs, please visit [www.uttyler.edu/tobacco-free](http://www.uttyler.edu/tobacco-free).

## **Grade Replacement / Forgiveness and Census Date Policies**

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid State-Mandated Course Drop Policy

## **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or University. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

## **Disability / Accessibility Services**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

## **Student Absence Due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

## **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time, the instructor will set a date and time when make-up assignments will be completed.

## **Social Security and FERPA Statement**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via email) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

## **Emergency Exits and Evacuation**

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire Department, or Fire Prevention Services.

## **Student Standards of Academic Conduct**

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give an unfair advantage to a student or the attempt to commit such acts.

- "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of a non-administered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

- ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.
- iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.
- iv. All written work that is submitted will be subject to review by plagiarism software.

## **UT Tyler Resources for Students**

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254)

## **Information for Classrooms and Laboratories**

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, or a higher than normal temperature should stay at home and notify their faculty. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

## **Recording of Class Sessions**

Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.

## ENGR 1204 COURSE SCHEDULE - Spring 2026

Date		Chapter	Topic
From	To		
Monday, January 12, 2026	Friday, January 16, 2026	Chapter 0	Getting Started
Monday, January 19, 2026	Friday, January 23, 2026	Chapter 1	AutoCAD Fundamentals
Monday, January 26, 2026	Friday, January 30, 2026	Chapter 2	Basic Object Construction and Dynamic Input
Monday, February 2, 2026	Friday, February 6, 2026	Chapter 3	Geometric Construction and Editing Tools
Monday, February 9, 2026	Friday, February 13, 2026	Chapter 4	Object Properties and Organization
Monday, February 16, 2026	Friday, February 20, 2026	Chapter 5	Orthographic View in Multiview Drawings
Monday, February 23, 2026	Friday, February 27, 2026	Chapter 6	AutoCAD 2D Isometric Drawings
Monday, March 2, 2026	Friday, March 6, 2026	Chapter 7	Basic Dimensioning and Notes
Monday, March 9, 2026	Friday, March 13, 2026		Spring Break
Monday, March 16, 2026	Friday, March 20, 2026	Chapter 8	Templates and Plotting
Monday, March 23, 2026	Friday, March 27, 2026	Chapter 9	Parametric Drawing Tools
Monday, March 30, 2026	Friday, April 3, 2026	Chapter 10	Auxiliary Views and Editing with GRIPS
Monday, April 6, 2026	Friday, April 10, 2026	Chapter 11	Section Views
Monday, April 13, 2026	Friday, April 17, 2026	Chapter 12	Assembly Drawings and Blocks
Monday, April 20, 2026	Friday, April 24, 2026	--	Course Review and Design Project Work

## ENGR 1204 ASSIGNMENT AND QUIZ SCHEDULE - Spring 2026

Friday, January 23, 2026	Chapter 1 Quiz
Sunday, January 25, 2026	Chapter 1 Assignment
Friday, January 30, 2026	Chapter 2 Quiz
Sunday, February 1, 2026	Chapter 2 Assignment
Friday, February 6, 2026	Chapter 3 Quiz
Sunday, February 8, 2026	Chapter 3 Assignment
Friday, February 13, 2026	Chapter 4 Quiz
Sunday, February 15, 2026	Chapter 4 Assignment
Friday, February 20, 2026	Chapter 5 Quiz
Sunday, February 22, 2026	Chapter 5 Assignment
Friday, February 27, 2026	Chapter 6 Quiz
Sunday, March 1, 2026	Chapter 6 Assignment
Friday, March 6, 2026	Chapter 7 Quiz
Sunday, March 8, 2026	Chapter 7 Assignment
Friday, March 13, 2026	Spring Break
Sunday, March 15, 2026	
Friday, March 20, 2026	Chapter 8 Quiz
Sunday, March 22, 2026	Chapter 8 Assignment
Friday, March 27, 2026	Chapter 9 Quiz
Sunday, March 29, 2026	Chapter 9 Assignment
Friday, April 3, 2026	Chapter 10 Quiz
Sunday, April 5, 2026	Chapter 10 Assignment
Friday, April 10, 2026	Chapter 11 Quiz
Sunday, April 12, 2026	Chapter 11 Assignment
Friday, April 17, 2026	Chapter 12 Quiz
Sunday, April 19, 2026	Chapter 12 Assignment
Tuesday, April 28, 2026	Final Exam-Design Project