

12th Practicum in Engineering

26 – 27 Instructional Plan

Course Overview	Practicum in Engineering is a capstone-style course that immerses students in a year-long senior design experience modeled after university and industry engineering practices. Students work in permanent teams to research, design, prototype, test, and present solutions to real-world engineering challenges while developing leadership, communication, and professional skills. The course integrates Autodesk AutoCAD User certification, technical research, design evaluation, portfolio development, and final project defense, preparing students for postsecondary engineering pathways, industry expectations, and professional success.
Course Standards	Rule §127.452 Practicum in Engineering

Scope & Sequence

Units/Modules & Instructional Days		Assessments & Scanning Deadlines	Standards
Unit 1: Senior Design Launch, Team Formation & Professional Portfolio Foundations 24 days		TX_CTE_12thPiE_F26_UE1 Scanning Deadline: October 01, 2026	Unit Standards
Unit 2: AutoCAD Foundations & Guided Practice 15 days Note: IBC Preparation Unit		TX_CTE_12thPiE_F26_UE2 Scanning Deadline: October 22, 2026	
Unit 3: AutoCAD Exam Prep – Learning Mode 15 days Note: IBC Preparation Unit		TX_CTE_12thPiE_F26_UE3 Scanning Deadline: November 12, 2026	
Unit 4: Testing Mode, Certification Completion & Technical Portfolio Documentation 16 days Note: IBC Preparation Unit		TX_CTE_12thPiE_F26_UE4 Scanning Deadline: December 17, 2026	
Unit 5: Research & Problem Definition 12 days		TX_CTE_12thPiE_S27_UE5 Scanning Deadline: January 28, 2027	
Unit 6: Solution Development & Design Evaluation 15 days		TX_CTE_12thPiE_S27_UE6 Scanning Deadline: February 18, 2027	
Unit 7: Prototype Development & Testing 20 days		TX_CTE_12thPiE_S27_UE7 Scanning Deadline: April 1, 2027	
Unit 8: Portfolio Development & Reflection 10 days		TX_CTE_12thPiE_S27_UE8 Scanning Deadline: April 15, 2027	
Unit 9: Final Presentation & Defense 12 days		TX_CTE_12thPiE_S27_UE9 Scanning Deadline: April 29, 2027	
Final Exam Windows			
Region	Exam Window	Scanning Deadline	
Dallas – Fort Worth (DFW)	May 17 – 21, 2027	May 21, 2027	
El Paso (EP)	May 10 – 14, 2027	May 14, 2027	
Permian Basin (PB)	May 17 – 21, 2027	May 21, 2027	
San Antonio (SA)	May 12 – 18, 2027	May 18, 2027	
Rio Grande Valley (RGV)	May 17 - 21, 2027	May 21, 2027	

TEKS Alignment

Instruction in this course is aligned to the Texas Essential Knowledge and Skills (TEKS) as adopted by the State Board of Education and implemented in accordance with Texas Education Code Chapter 28.

Instructional Materials

Primary Texts (if applicable)

Supplemental instructional materials may be used to support instruction. Supplemental materials do not replace board-approved core instructional materials.

Additional information regarding instructional programs, assessments, and parent access to instructional materials is available on the district website.

Instructional Expectations

Instruction is delivered using board-approved instructional materials and aligned to the scope and sequence outlined above. Teachers are expected to ensure all required standards are taught within the course timeframe.

Assessment Overview

Student learning is monitored through formative and summative assessments aligned to course standards. Assessment results are used to inform instruction and student supports. Students participate in required state assessments when applicable.