

**West Texas A&M University**  
**Advising Services**  
**Degree Checklist**  
**2024-2025**

(For assistance completing this form, contact Advising Services at 806-651-5300)

Name: \_\_\_\_\_ WT ID: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Civil Engineering B.S.</b>	
<b>College of Engineering (ECS-119) (651-5257)</b>	
<b>Degree:</b> Bachelor of Science (B.S.) See the "Requirements for Baccalaureate Degrees" section of the Catalog.	
<b>Major:</b> Civil Engineering <b>Major Code:</b> 130	<b>BS.CIVIL.ENGR / PRE.ENGR</b>
<b>University Core Curriculum Requirements (42 hours)</b>	<u>Semester Credit Hours</u>
<b>Core 10 - Communication (3 hours from ENGL options)</b> • ENGL 1301 or ENGL 1311	<b>3</b>
<b>Core 10 - Communication (3 hours from COMM options)</b> • COMM 1315; COMM 1318; or COMM 1321	<b>3</b>
<b>Core 20 - Mathematics (3 hours)</b> • See Major-Specific University Core Requirements below	
<b>Core 30 - Life and Physical Sciences (6 hours)</b> • See Major-Specific University Core Requirements below	
<b>Core 40 - Language, Philosophy and Culture (3 hours)</b> • ANTH 2351; ENGL 2321; ENGL 2326; ENGL 2331; ENGL 2341; ENGL 2343; HIST 2311; HIST 2323; HIST 2372; MCOM 1307; PHIL 1301; PHIL 2374; SPAN 2311; SPAN 2312 [or an equivalent course (second year or intermediate level) in a foreign language]; SPAN 2313; SPAN 2315; or SPAN 2371	<b>3</b>
<b>Core 50 - Creative Arts (3 hours)</b> • ARTS 1301; ARTS 1303; ARTS 1304; DANC 2303; MUSI 1306; MUSI 1307; MUSI 1310; or THRE 1310	<b>3</b>
<b>Core 60 - American History (6 hours)</b> • HIST 1301; HIST 1302; HIST 2301; HIST 2381; or HIST 2382	<b>3</b> <b>3</b>
<b>Core 70 - Government / Political Science (6 hours)</b> • POSC 2305 and POSC 2306	<b>3</b> <b>3</b>
<b>Core 80 - Social and Behavioral Sciences (3 hours)</b> • AGBE 2317; COMM 2377; CRIJ 1301; ECON 2301; ECON 2302; GEOG 1302; PSYC 2301; or SOCI 1301	<b>3</b>
<b>Core 90 - Component Area Option (6 hours or fewer; may depend on major requirements)</b> • See Major-Specific University Core Requirements below	

<b>Civil Engineering Major Requirements (99-102 hours)</b>			
***** C or better required in all courses in the Major Requirements *****			
***** C or better required in all prerequisites listed for College of Engineering courses required for CENG majors *****			
<b>Major-Specific University Core Requirements (15 hours)</b>			
The following courses are required for their specific Core areas <u>instead of</u> the courses listed above in the general University Core Curriculum.			
<b>Core 20 - Mathematics (3 hours)</b> <ul style="list-style-type: none"> <li>MATH 2413 - Calculus I</li> </ul> (Fourth hour will count towards Core 90.)	3		
<b>Core 30 - Life and Physical Sciences (6 hours)</b> <ul style="list-style-type: none"> <li>CHEM 1411, 1411L - Chemistry I</li> <li>CHEM 1412, 1412L - Chemistry II</li> </ul> (Lab hours will count towards Core 90.)	3	3	
<b>Core 90 - Component Area Option (6 hours)</b> <ul style="list-style-type: none"> <li>ENGL 1302 – Academic Writing and Research or ENGL 2311 – Introduction to Professional and Technical Communication</li> <li>Lab hours from CHEM 1411/1412 and fourth hour from MATH 2413</li> </ul>	3		
	1	1	1
<b>Civil Engineering Requirements (84-87 hours)</b>			
ENGR 1171 - Engineering Ethics	1		
ENGR 1301 - Fundamentals of Engineering	3		
ENGR 1304 - Engineering Graphics	3		
ENGR 2301 - Engineering Statics	3		
ENGR 2302 - Engineering Dynamics	3		
ENGR 2332 - Mechanics of Materials I	3		
CENG 2361 - Surveying	3		
ENGR 3202 - Fundamentals of Engineering Economics	2		
CENG 3321 - Civil Construction Materials	3		
CENG 2331 - Introduction to Environmental Engineering or EVEG 2331 - Introduction to Environmental Engineering	3		
CENG 3411 - Water Resources Engineering or EVEG 3411 - Water Resources Engineering	4		
CENG 3341 - Geotechnical Engineering	3		
CENG 3351 - Structural Analysis I	3		
CENG 3304 - Introduction to Fluid Mechanics for Civil and Environmental Engineers or EVEG 3304 - Introduction to Fluid Mechanics for Civil and Environmental Engineers	3		
CENG 3362 - Transportation Engineering	3		
CENG 4380 - Civil Engineering Design	3		
PHYS 2425 - Calculus Physics I	4		
CS 1315 - Programming Fundamentals or CS 1337 - Programming Principles I	3		
MATH 2414 - Calculus II	4		
MATH 3340 - Calculus III	3		
MATH 3342 - Differential Equations I	3		
One CENG Structural Design elective	3		
One CENG general elective	3		

One CENG design elective	<b>3</b>
One elective in ENGR, CENG, EENG, EVEG or MENG	<b>3</b>
<b>One upper-level MATH/PHYS elective selected from:</b> MATH 3311 - Linear Algebra MATH 4340 - Complex Variables I MATH 4341 - Advanced Calculus MATH 4361 - Statistics for the Sciences MATH 4362 - Introduction to Numerical Analysis PHYS 3310 - Modern Physics I PHYS 4310 - Modern Physics II PHYS 4330 - Optics PHYS 4340 - Mathematical Methods PHYS 4397 - Advanced Physics Elective III	<b>3</b>
<b>Two natural science electives from:</b> PHYS 2426 - Calculus Physics II BIOL 1406 - Basic and Contemporary Biology I BIOL 1407 - Basic and Contemporary Biology II BIOL 1411 - Botany BIOL 1413 - Zoology BIOL 2420 - Applied Microbiology <b>or</b> BIOL 2572 - Microbiology BIOL 4425 - Limnology BIOL 4510 - General Ecology GEOL 1403 - Physical Geology GEOL 1404 - Historical Geology GEOL 3471 - Mineralogy GEOL 3475 - Petrology GEOL 3411 - Structural Geology GEOL 3312 - Geomorphology GEOL 3350 - Hydrogeology	<b>6-9</b>
<b>Total hours required to complete degree: 126 hours</b> Depending on transfer credits and other substitutions/waivers, student may need to take additional electives as needed to total a minimum of 126 hours or the minimum total hours required for this degree, of which at least 36 must be advanced (3000/4000 level) and earned at WTAMU.	
<b>Admission Requirements for Pre-Engineering and Civil Engineering</b> All civil engineering students must meet WTAMU admission standards as outline in this catalog. Upon admission to the University, all students would be eligible to engage in and complete the first two years of the Engineering Program. In the semester during which the student would complete the pre-engineering sequence (cited below), the student may petition for admittance into the Civil Engineering Program. Every student enrolled in civil engineering courses at the 3000-level or higher must first be admitted into the Civil Engineering Program or receive special permission from the program director.	
<b>Criteria for Admission into Civil Engineering Program</b> <ul style="list-style-type: none"> <li>• Overall GPA of at least 2.25</li> <li>• Completion of the pre-engineering sequence</li> <li>• Successful completion of the entrance interview with adviser</li> </ul>	
<b>Pre-Engineering Sequence</b> <b>Major Code: 128</b> The pre-engineering sequence must be completed with a GPA of at least 2.75.	
MATH 2413 - Calculus I	<b>4</b>
MATH 2414 - Calculus II	<b>4</b>

CHEM 1411 - Chemistry I	4
CHEM 1412 - Chemistry II	4
ENGR 1301 - Fundamentals of Engineering	3
ENGR 1304 - Engineering Graphics	3
ENGR 2301 - Engineering Statics	3
ENGR 2302 - Engineering Dynamics	3

**Note:** Students pursuing a civil engineering degree who do not meet the aforementioned criteria are to be listed as pre-engineering (major code 128) students. Students must appeal to the major department for any exceptions to this requirement.

**Prerequisites**

Some courses may require prerequisites. See the University Catalog for more information.

**Advising Notes**

**NOTE:** This is NOT a degree plan. All undergraduate students must request an official degree plan from their academic dean's office by the time they have completed 30 credit hours. In addition, this document is used as an advising resource. For official information, please refer to the University Catalog.