RELLIS ACADEMIC ALLIANCE

Civil Engineering (Bachelor of Science) from Tarleton State University

Graduation Plan - 4-Year Full-Time Recommended Course Sequence (2026-27)

Blinn College District - Engineering (A.S.)				Tarleton State University - Civil Engineering (B.S.)			
Freshman	**Fall**			**Junior**	**Fall**		
	ENGR 1201	Intro to Engineering	2		CVEN 2200	Surveying	2
	MATH 2413	Calculus I	4		CVEN 4450	Transportation Engineering	4
	CHEM 1409	Gen Chem for Engr Maj	4		ENVE 2311	Soil Mechanics	3
	ENGL 1301	Composition I	3		ENVE 3300	Fluid Mechanics	3
	060-GEN ED	US HISTORY*	3		050-GEN ED	CREATIVE ARTS*	3
		TOTAL	**16**			**TOTAL**	**15**
	Spring				**Spring**		
	ENGR 1304	Engineering Graphics	3		CVEN 3123	Strength of Materials Lab	1
	MATH 2414	Calculus II	4		CVEN 3301	Structural Analysis	3
	PHYS 2325	University Physics I	3		CVEN 3245	Civil Engineering Lab I	2
	PHYS 2125	University Physics I Lab	1		CVEN 4360	Highway Planning & Design	3
	ENGL 1302	Composition II	3	+	010-GEN ED	COMMUNICATION	3
	060-GEN ED	US HISTORY*	3		040-GEN ED	HUMANITIES	3
		TOTAL	**17**			**TOTAL**	**15**
Sophomore	**Fall**			**Senior**	**Fall**		
	ENGR 2301	Engineering Mech: Statics	3		CVEN 4305	Reinforced Concrete Design	3
*	PHYS 2326	University Physics II	3		CVEN 4325	Foundation Engineering	3
*	PHYS 2126	University Physics II Lab	1		ENVE 4310	Water Resources Eng	3
*	or ENGR 4084	Prof Practice (3 hrs)		*	ENGR 4258	Engineering Professionalism	2
	MATH 2415	Calculus III	4		CVEN 3346	Civil Engineering Lab II	3
^	CVEN 2312	Intro to Civil Engineering	3		GOVT 2305	Federal Government	3
	080-GEN ED	SOCIAL SCIENCE*	3				
		TOTAL	**17**			**TOTAL**	**17**
	Spring				**Spring**		
	ENGR 2302	Engineering Mech: Dynamics	3	*	ENGR 4380	Engineering Capstone	3
	MATH 2320	Differential Equations	3		ENVE 3310	Engineering Hydrology	3
	ENGR 2332	Mechanics of Materials	3		CVEN 3320	Construction Planning & Mgt	3
	GEOL 1403	Physical Geology	4		CVEN 4306	Steel Design	3
*	ENGR 2304	Programming for Engineers	3		GOVT 2306	Texas Government	3
^	ENGR 3311	Engineering Math Methods	3				
		TOTAL	**19**			**TOTAL**	**15**
		Notes				**TOTAL CREDIT-ALL TERMS**	**131**

* Consult with an academic advisor to determine best options

^ Offered with Tarleton State at RELLIS

* PHYS 2326 + 2126 (4 sch) = ENGR 4084 (3 SCH)

\+ Choose from SPCH 1311, SPCH 1315, or SPCH 1321

* ENGR 2304 (3 SCH) = ENVE 2251 (2 SCH)

***** To make the BS and MS a 4+1, 18 hours from senior year can be replaced with graduate courses from MS program; courses require aproval from Tarleton department head

Tarleton State University - Master of Science in Civil Engineering

1st Semester		
CVEN 5301	Advanced Structural Analysis	3
or CVEN 5325	Advanced Foundation Eng	
or CVEN 5360	Highway Planning & Design	
or CVEN 5310	Water Resources Engineering	
or CVEN 5319	Unit Operations	
MEEN 5311	FEA	3
or MEEN 5390	Advanced Engineering Math	
or COSC 5361	Deep Neural Networks	
or CPEN 5366	Robot Vision	
or MATH 5305	Statistical Models	
or MATH 5330	Mathematical Modeling	
Group B elective	Select from options below	3
	***TOTAL**	**9**

2nd Semester	
Select second course from the CVEN options listed in the 1st semester	3
Select a second Group B elective	3
Select a third Group B elective	3
***TOTAL**	**9**

3rd Semester	
Select a fourth Group B elective	3
Non-thesis: select one Group D course	3
Thesis: CVEN 5088 Master's Thesis	3
TOTAL	**6**

4th Semester	
Select another course from the CVEN options listed in the 1st semester	3
Non-thesis: select one Group D course	3
Thesis: CVEN 5088 Master's Thesis	3
TOTAL	**6**
TOTAL CREDIT-ALL TERMS	**30**

Notes

Group B electives: select four across the plan: CVEN 5304 Advanced Steel and Timber Design; CVEN 5305 Advanced Reinforced Concrete Design; CVEN 5309 Design of Buried and Earth Structures; CVEN 5311 Soil Improvement & Remediation; CVEN 5315 Bridge Design; CVEN 5318 Pavement Material & Management; CVEN 5322 Surface Water Hydrology; CVEN 5323 Ground Water Hydrology; MEEN 5310 Advanced Solid Mechanics; CVEN 5316 Pre-Stressed Concrete Design; CVEN 5324 Surface Water Quality Modeling; CVEN 5320 Chemical & Biological Processes in Water Treatment; or CVEN 5308 In-Situ Testing.

Group D non-thesis courses-select two: CVEN 5316 Pre-Stressed Concrete Design; CVEN 5324 Surface Water Quality Modeling; CVEN 5308 In-Situ Testing; CVEN 5084 Internship; or CVEN 5098 Research Project.