

Bachelor of Science in Engineering Technology in Structural Analysis/ Design (120 hours)

This is a recommended course sequence based on the UHD 2023-24 Undergraduate Catalog for a degree in Structural Analysis/Design which equips students to apply computer technology, modern materials and construction techniques to the overall design of structures, which includes project planning, costs estimates, and management of the project. Courses with asterisks (*) indicate Common Core courses.

First Year					
Semester 1			Semester 2		
Course	Hours	Grade	Course	Hours	Grade
ENG 1301*	3		ENG 1302*	3	
PHYS 1307/1107*	4		ENGR 1333 (Programming for Engineers)	3	
ENGR 1329/1129 (Concrete Technology / Lab)	4		MATH 2401*	4	
UHD 13XX (Freshmen Seminar)*	3		Language, Philosophy & Culture*	3	
			Oral communication Course*	3	
Total Hours	14		Total Hours	16	
Second Year					
Semester 1			Semester 2		
Course	Hours	Grade	Course	Hours	Grade
ENGR 2308 (Statics)	3		ENGR 2304 (Computer-Aided Drafting and Design I)	3	
CHEM 1307/1107*	4		ENGR 2311/2111 (Mechanics of Materials / Lab)	4	
ENGR 2411 (Modern Methods of Engineering Analysis)	4		Am. Hist. Course*	3	
Am. Hist. Course*	3		POLS 2306*	3	
			Approve SAD LL Elective	3	
Total Hours	14		Total Hours	16	
Third Year					
Semester 1			Semester 2		
Course	Hours	Grade	Course	Hours	Grade
ENGR 2306/2106 (Surveying / Lab)	4		ENGR 3302 (Engineering Economics)	3	
ENGR 3311 (Structural Analysis I)	3		ENGR 3322 (Structural Analysis II)	3	
ENGR 3312 (Reinforced Concrete Design)	3		ENGR 4321 (Structural Steel Design)	3	
ENGR 3323/3123 (Soil Mechanics / Lab)	4		ENGR 4322 (Foundation Design)	3	
Social and Behavioral Sciences*	3		ENGR 3332 (Engineering Communication and Ethics)	3	
ENGR 3344 (Traffic & Transportation Engineering) (Summer Option)	3				
Total Hours	20		Total Hours	15	
Fourth Year					
Semester 1			Semester 2		
Course	Hours	Grade	Course	Hours	Grade
ENGR 3308 (Fluid Mechanics)	3		ENGR 4320 (Prestressed Concrete)	3	
ENGR 4333 (Construction Management)	3		POLS 2305 (Federal Government)*	3	
ENGR 4135 (Senior Capstone Design I)	1		ENGR 4326 (Dynamics of Structure)	3	
Approved UL SAD elective	3		ENGR 4335 (Senior Capstone Design II)	3	
Creative Arts course*	3				
Total Hours	13		Total Hours	12	

15 to Finish

Fall: 15 hours • Spring: 15 hours

30 in 3

Fall: 12 hours • Spring: 12 hours • Summer: 6 hours