CONSTRUCTION SCIENCE - BS

The Construction Science Program is accredited by the American Council for Construction Education. Strong ties are maintained with the construction industry via the Construction Industry Advisory Council, an organization of construction and construction-related companies and individuals committed to supporting the Construction Science Program at Texas A&M University.

The undergraduate program integrates the principles of architecture, technology, engineering, business and project management, which prepares students to effectively manage the total construction process. Specialized course work in building systems, materials and methods of construction, scheduling, cost estimating, structures, construction management, law, and business/labor relations are taught. This interdisciplinary approach provides the student with the best possible exposure to the various tools needed to become a construction industry leader.

Construction Science graduates quickly become valued members of a construction team and participate in planning, cost estimating, scheduling, supervision, and commissioning of complete facilities in a timely, safe and quality manner. They also possess the professional knowledge to confidently interact with professional engineers, registered architects, and owners to solve problems that may arise.

In addition to the academic coursework, each student is required to accomplish an approved internship of full-time practical work experience with a construction company, or in a construction-related work. For more information, please visit the Department of Construction Science website.

Because of the important role of computing in the disciplines housed within the School of Architecture, all entering students are required to possess a portable, network-ready personal computer capable of running software appropriate to their academic program. Financial aid is available to assist students in their computer purchases. No student will be denied admission to Texas A&M University based on an inability to purchase a computer. Additional information is available on the School of Architecture (https://www.arch.tamu.edu/resources/technology-requirements/) website. In addition to the requirements for all School of Architecture (https://www.arch.tamu.edu/resources/technology-requirements/) students, Construction Science majors also have additional requirements of:

- ***Not* a macOS laptop** (most of the software used in construction science industry is not compatible with macOS.)
- ***Not* a chromebook** (most of the software used in construction science industry is not compatible with chromebook.)
- Discrete graphics (the additional graphics chip provides the processing power required by industry standard software. The more RAM this chip has, the better it'll be able to handle large, complex models. Nvidia chipset is recommended.)

This program is also offered at the Texas A&M Higher Education Center in McAllen, Texas.

Program Requirements

First Year		
Fall		**Semester Credit Hours**
COSC 153	Introduction to the Construction Industry [1]	3
COSC 222	Social Issues in the History of the Construction Environment [1]	3
ECON 202 or ECON 203	Principles of Economics or Principles of Economics	3
HIST 105	History of the United States	3
MATH 140	Mathematics for Business and Social Sciences	3
	Semester Credit Hours	**15**
Spring		
ACCT 209	Survey of Accounting Principles	3
COSC 175/ AREN 175	Construction Graphics Communication [1]	3
COSC 284	Introduction to Applied Workplace Ethics, Etiquette and Communications [1]	1
ENGL 104	Composition and Rhetoric	3
HIST 106 or HIST 226	History of the United States or History of Texas	3
MATH 142	Business Calculus	3
	Semester Credit Hours	**16**
Second Year		
Fall		
COSC 253	Construction Materials and Methods I [1]	3
ENGL 210	Technical and Professional Writing	3
PHYS 201	College Physics	4
POLS 206	American National Government	3
Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)		1
General Elective		3
	Semester Credit Hours	**17**
Spring		
COSC 275	Estimating I [1]	3
MGMT 209	Principles of Business Regulations and Law	3
POLS 207	State and Local Government	3
Select one of the following:		4
CHEM 119	Fundamentals of Chemistry I	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
Select one of the following: [1]		3
ARCH 249	Survey of World Architecture History I	
ARCH 250	Survey of World Architecture History II	
ARCH 350	History and Theory of Modern and Contemporary Architecture	
ARTS 150	Art History Survey II	
ENDS 101	Design Process	
	Semester Credit Hours	**16**

Third Year		
Fall		
COSC 301	Construction Surveying [1]	2
COSC 325	Mechanical, Electrical and Plumbing Systems in Construction I [1]	3
COSC 353	Construction Project Management [1]	3
COSC 375	Estimating II [1]	3
Directed elective [1,2]		3
	Semester Credit Hours	**14**
Spring		
COSC 321	Structural Systems I [1]	3
COSC 354	Construction Materials and Methods II [1]	3
COSC 463	Introduction to Construction Law [1]	3
COSC 475	Construction Project Planning [1]	3
Directed elective [1,2]		3
	Semester Credit Hours	**15**
Fourth Year		
Fall		
COSC 494	Internship [1,3]	6
MGMT 309	Survey of Management	3
FINC 409	Survey of Finance Principles	3
	Semester Credit Hours	**12**
Spring		
COSC 464	Construction Safety II [1]	3
COSC 465	Advanced Topics in Construction Law [1]	3
COSC 477	Construction Project Controls [1]	3
Select one of the following: [1,4]		3
COSC 440	Interdisciplinary Capstone	
COSC 441	Residential Capstone	
COSC 442	Commercial Capstone	
COSC 443	Industrial Capstone	
COSC 446	Specialty Capstone	
Directed elective [1,2]		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

1. Must make a grade of C or better.
2. Select from COSC 303, COSC 322, COSC 326, COSC 421, COSC 450, COSC 459, COSC 461, COSC 468, COSC 489. A maximum of 3 hours of 489 may be used.
3. Internship must be Fall or Spring semester. Only online courses at Texas A&M can be taken during an official internship.
4. Capstone must be taken in graduating semester.