

CONSTRUCTION SCIENCE - BS

The Construction Science undergraduate program provides specialized course work in building systems, materials and methods of construction, scheduling, cost estimating, structures, construction project management, law, surveying and business/labor relations with the goal of preparing students to effectively manage the total construction process.

Upon graduation from the Bachelor of Science in Construction Science, students have a wide range of opportunities within the construction industry to pursue careers such as estimators, project managers, safety managers, superintendents, quality assurance/control managers and Mechanical/Electrical/Plumbing coordinators.

In addition to their in class academic coursework, each student is required to successfully complete an approved internship of full-time practical work experience with a construction company during a spring or fall semester. This internship provides students with opportunities to hone skills in resume building, networking, evaluation of offers, and application of classroom knowledge in the field. The Department of Construction Science facilitates this process through one of the largest department level career fairs at Texas A&M University.

Following graduation, Construction Science graduates quickly become valued members of a construction team and participate in construction project 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 trade contractors, professional engineers, registered architects, and owners to solve problems and execute at a high level.

The Bachelor of Science in Construction Science degree program is accredited by the American Council for Construction Education (ACCE). The Department maintains strong ties with the construction industry via the Construction Industry Advisory Council (CIAC), an organization of construction and construction-related companies and individuals committed to supporting the Department of Construction Science at Texas A&M University. Are you ready to begin your career in the construction industry? Explore our Department of Construction Science website (<https://www.arch.tamu.edu/cosc/>) to learn more!

Because of the important role of computing in the disciplines housed within the College 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 College of Architecture website (<https://www.arch.tamu.edu/resources/technology-requirements/>). In addition to the requirements (<https://www.arch.tamu.edu/resources/technology-requirements/>) for all College of Architecture 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 will 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	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 (https://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 Principles of Geology & GEOL 102 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 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 214, COSC 303, COSC 322, COSC 326, COSC 359, COSC 421, 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.