

Construction Science

2013-2014 Curriculum



The Construction Science program is designed to prepare you for entry into the very broad and diverse range of careers related to construction. This could lead to construction management opportunities in areas such as residential, agricultural, commercial, paving and excavation construction.

Students in a program of this type typically enjoy solving problems, working outdoors, and appreciate the sense of accomplishment that comes from seeing a project grow from an idea to finished product.

While this program provides a rigorous background in math and science, and includes engineering principles, it differs from those leading to B.S. in Engineering. The Engineering degrees have unique entrance requirements and focus on design leading to registration as a Professional Engineer.

The Construction Science program places emphasis on the management of construction processes (materials, time people).



This program will provide you a strong background in science and math, includes fundamental concepts from engineering, and exposure to relevant technologies and techniques such as CAD, land surveying, and GPS/GIS. The construction management coursework is taught by both fulltime faculty and experienced part-time industry professionals, and includes courses such as:

- Construction Documents and Estimating
- Project Planning and Scheduling
- Construction Finance/Accounting & Law
- Structural & Soil Mechanics in Construction
- Agricultural & Construction Machinery
- Green Construction & Construction Safety
- Environmental Stormwater Management

The business related coursework in the Construction Science track leads to a **Minor in Business Administration**, and because of the importance in practice, skills related to teamwork, communication and leadership are covered as well.



Like many construction management programs around the country, the UT Construction Science program relies on strong support and collaboration with the various segments of the Tennessee construction industry. These collaborations provide internship and job opportunities for our students, access to high quality experienced instructors, a relevant curriculum, as well as operating funds.

Department of Biosystems Engineering & Soil Science
College of Agricultural Sciences and Natural Resources (CASNR)

<http://construction.utk.edu/> or <http://bioengr.ag.utk.edu/>

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Professor

**B.S. Environmental and Soil Sciences
Construction Science Concentration**
(includes Minor in Business Administration)



2013-2014 Curriculum

1st Semester

Freshman

Geology 101	4
CHEM120 General Chemistry I*	4
ENGL101 English Composition I*	3
MA151 Math for the Life Sciences I*	<u>3</u>
	14

Sophomore

CMST210 or 240 Public Speaking (OC)*	3
ACCT 200 Foundations of Accounting ²	3
BsET 202 – Materials and Fabrication	3
ECON 201 Introductory Economics: (Social Sciences)* ²	4
PHYSICS221 Elements of Physics* or Engineering Fundamentals 151	<u>4</u>
	17

Junior

BsET 412 Surveying	3
MGT 201 Intro to Business Management ²	3
BULW 301 Legal Environment of Business	2
BsET 414 CAD Applications to Biosystems Engineering Technology	3
BsET 325 Structural and Soil Mechanics in Construction	<u>3</u>
	14

Senior

BsET 355 Project Planning and Scheduling	3
MGT 300 Organizational Management ²	3
BsET 435 Construction Finance/Accounting and Law	3
¹ Gen Ed Elective (Arts & Humanities)*	3
Technical Elective	<u>3</u>
	15

2nd Semester

Freshman

¹ Gen Ed Elective (Social Sciences)*	3
Geology 102	4
ARCH 111 Architecture and the Built Environment*	3
ENGL102 English Composition II*	3
MA152 Math for the Life Sciences II*	<u>3</u>
	16

Sophomore

¹ Gen Ed Elect.(Cultures & Civilizations)*	3
BsET335 Construction Documents and Estimating	3
ENGL360 Tech & Prof Writing (WC)* or ENGL 295 Bus & Tech Writing (WC)*	3
ESS210 Introduction to Soil Science	4
STAT 201 Intro to Statistics* ²	<u>3</u>
	16

Junior

¹ Gen Ed Elect.(Cultures & Civilizations)*	3
Technical Elective or ESS 492 Internship	3
BsET 345 Green Construction and Construction Safety	3
FINC 300 Fundamentals of Finance ²	3
ESS424 Environmental Stormwater Management	<u>3</u>
	15

Senior

Technical Elective	3
MARK300 Marketing & Supply Chain Management ²	3
Technical Elective	3
BsET 432 Agricultural and Construction Machinery	3
BsET 411 Construction Issues Seminar	<u>1</u>
	13

120 Hours Total

*Meets University General Education Requirement

¹Select from the corresponding University General Education list after consultation with advisor. This concentration specifically recommends Spanish 211 & 212 Intermediate Spanish (3 + 3).

²Requirement for Minor in Business Administration.