

Construction Science



2011-2012 Curriculum

The University of Tennessee



The Construction Science concentration 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 the outdoors, and enjoy the sense of accomplishment that can be quickly realized seeing a project grow from an idea to finished product. This field relies on knowledge from engineering, construction, and business; skills related to teamwork and leadership are important as well. The program is designed to provide you a strong background in science and math, with exposure to relevant technology such as CAD, GPS/GIS, sensors and electronic information transfer. In addition, the added emphasis on business related coursework in the Construction Science track leads to a Minor in Business Administration.

One of four Biosystems Technology concentrations within the Environmental & Soil Sciences (ESS) Degree:

- Agricultural Systems Technology
- Construction Science
- Land Surveying Technology
- Off Road Vehicle Technology

These concentrations are applied science and math programs which are highly focused on specific technical areas. These tracks are designed to provide skills required to manage the sophisticated technological systems that are increasingly essential in today's world. The various tracks all provide a strong basic science foundation, and add coursework designed to create programs of study which emphasize the application of technology in today's world. Coursework in economics and the management of a small business are also included, along with oral and written communication.



While these programs provide a rigorous background in math and science, and include courses in engineering, they differ from those leading to B.S. in Engineering. The Engineering degrees have unique entrance requirements and are accredited programs which focus on design and lead to registration as a Professional Engineer.



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

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The University of Tennessee
Knoxville, TN 37996-4531

<http://construction.utk.edu/>

or

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

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University of Tennessee
B.S. Environmental and Soil Sciences
Construction Science Concentration
(includes Minor in Business Administration)
2011-2012 Curriculum



1st Semester		2nd Semester	
Freshman		Freshman	
Geology 101	4	¹ Gen Ed Elective (Social Sciences)*	3
CHEM120 General Chemistry I*	4	Geology 102	4
ENGL101 English Composition I*	3	CHEM130 General Chemistry II*	4
MA151 Math for the Life Sciences I*	<u>3</u>	ENGL102 English Composition II*	3
	14	MA152 Math for the Life Sciences II*	<u>3</u>
			17
Sophomore		Sophomore	
SPEECH210 or 240 Public Speaking (OC)*	3	¹ Gen Ed Elect.(Cultures & Civilizations)*	3
ACCT200 Accounting ²	3	¹ Gen Ed Elective (Arts & Humanities)*	3
AGNR290 Computer Applications to Problem Solving	3	ENGL360 Tech & Prof Writing (WC)* or	
ECON201 Intro. Econ. (Social Sciences)* ²	4	ENGL 295 Bus & Tech Writing (WC)*	3
PHYSICS221 Elements of Physics*	<u>4</u>	ESS210 Introduction to Soil Science	4
	17	STAT201 Intro. to Statistics* ²	<u>3</u>
			16
Junior		Junior	
Business Administration 201 ²	4	¹ Gen Ed Elect.(Cultures & Civilizations)*	3
BsET412 Surveying	3	Technical Elective	3
Business Law 301 (3) Legal Environment of Business	3	CE 442 Construction Methods and Equipment	3
BsET414 CAD Applications to Biosystems		Management 300 ²	3
Engineering Technology	3	ESS324 Soil and Water Conservation	<u>3</u>
BsET 325 Soils in Construction	<u>3</u>		15
	16		
Senior		Senior	
Technical Elective	3	¹ Gen Ed Elective (Arts & Humanities)*	3
Finance 300 ²	3	Marketing 300 ²	3
CE 543 Construction Estimating	3	BsE 404 Engineering Project Management	3
Technical Elective	3	BsET432 Agricultural Machinery and Tractors	3
Technical Elective	<u>3</u>	BsET 411 Construction Issues Seminar	<u>1</u>
	15		13

123 Hours Total

* Meets University General Education Requirement

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

²Requirement for Minor in Business Administration

Suggested Technical Electives include: BsET 202 Materials and Fabrication, BsET326 [GIS/GPS Applications in Agriculture and Environmental Science](#), BsET434 [Production Monitoring & Automation](#), BsET452 Small Internal Combustion Engines, BsET474 Environmental Instrumentation and Monitoring, Safety 452 Safety Principles and Practices.

