



# Civil Engineering Technology Program

## OVERVIEW OF THE PROGRAMS

The Civil Engineering Technology program at Fairmont State University prepares graduates to participate in the planning, analysis, design, construction, operation and maintenance of roadways, airports, tunnels, bridges, water supply and distribution systems, waste collection, and treatment systems.

The curriculum is a highly flexible 2 + 2 curriculum. Once the two-year degree is earned, graduates may choose to enter the workforce or continue their education with two years at the baccalaureate level.

The Associate of Science degree in Civil Engineering Technology provides technical courses in the fundamentals of engineering technology, surveying, construction materials and methods, computer graphics, civil engineering graphics, construction estimating, structures, and environmental engineering technology. Most of the technical courses provide a combination of lecture and laboratory experiences. In addition, technical courses are underpinned with instruction in mathematics and science, written and oral communication skills, and economics, which are utilized subsequently in the technical courses.

The Bachelor of Science degree provides students a greater emphasis on analysis and design with specialized classes in hydraulics and hydrology, soil mechanics and foundation design, structural analysis and design, water and wastewater systems, construction management, coupled with additional classes in science and mathematics, communication, social science, and humanities.

## EMPLOYMENT OPPORTUNITIES

Graduates with the Associate of Science degree are qualified for entry-level technical positions in construction, surveying, engineering and architectural firms; local, state and national government, environmental and public health agencies; state departments of transportation and highways; and private business and industry. Specific job titles include materials technician (soils, concrete, and aggregate), surveying crew chief assistant, drafter/detailer, construction or field inspector, office technician, CAD operator, construction technician or estimator.



*fast fact*

**The annual median wage of a Civil Engineer is \$71,710.00.**

FOR MORE INFORMATION VISIT

[www.fairmontstate.edu/academics/collegeofscitech/default.asp](http://www.fairmontstate.edu/academics/collegeofscitech/default.asp)

# MODEL SCHEDULE

## Civil Engineering Technology (B.S.)

### FRESHMAN FIRST SEMESTER

CIVL 2210	LIGHT CONSTRUCTION.....	4
MATH 1101	APPLIED TECHNICAL MATH I.....	3
INFO 1100	COMPUTER CONCEPTS & APPLICATIONS.....	3
DRFT 2200	FUNDAMENTALS OF CAD .....	3
ENGL 1104	WRITTEN ENGLISH I .....	3
		16

### FRESHMAN SECOND SEMESTER

CIVL 2200	INTRODUCTION TO SURVEYING.....	3
COMM 2200 OR 2201 OR 2202	.....	3
MATH 1102	APPLIED TECHNICAL MATH II.....	3
CIVL 2220	CONSTRUCTION MATERIALS.....	4
MECH 1100	STATICS .....	3
		16

### SOPHOMORE FIRST SEMESTER

ENGL 1108	WRITTEN ENGLISH II.....	3
-OR-		
ENGL 1109	TECHNICAL REPORT WRITING.....	3
CIVL 2240	CONSTRUCTION, LAND & ROUTE SURVEYING .....	3
CHEM 1101	GENERAL CHEMISTRY I.....	4
TECH 2290	ENGINEERING ANALYSIS I .....	4
MECH 2200	STRENGTH OF MATERIALS .....	4
		18

### SOPHOMORE SECOND SEMESTER

CIVL 2230	CONSTRUCTION ESTIMATING .....	3
CIVL 2280	ENVIRONMENTAL ENGINEERING TECHNOLOGY I.....	3
CIVL 2290	INTRODUCTION TO STRUCTURES.....	3
CIVL 2275	CIVIL ENGINEERING GRAPHICS .....	3
ECON 2200	ECONOMICS.....	3
ELECTIVE	.....	2
		17

### JUNIOR FIRST SEMESTER

CIVL 3305	HYDRAULICS & HYDROLOGY .....	3
TECH 3300	ENGINEERING ANALYSIS II.....	4
PHYS 1101	INTRODUCTION TO PHYSICS I.....	4
ENGL 1108	WRITTEN ENGLISH II.....	3
-OR-		
ENGL 1109	TECHNICAL REPORT WRITING.....	3
		14

### JUNIOR SECOND SEMESTER

CIVL 3340	INTRODUCTION TO SOIL MECHANICS .....	4
CIVL 4440	STRUCTURAL DESIGN .....	3
CHEM 1102	GENERAL CHEMISTRY II.....	4
-OR-		
PHYS 1102	INTRODUCTION TO PHYSICS II .....	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	....	3
GENERAL STUDIES - ARTISTIC/CREATIVE/INTERDISCIPLINARY ELECTIVE	....	3
		17

### SENIOR FIRST SEMESTER

CIVL 4410	ADVANCED STRUCTURAL ANALYSIS.....	3
CIVL 4460	ENVIRONMENTAL ENGINEERING TECHNOLOGY II.....	3
CIVL 4470	ADVANCED SOIL MECHANICS & .....	3
	FOUNDATION DESIGN.....	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	....	3
MECH 3320	DYNAMICS .....	3
		15

### SENIOR SECOND SEMESTER

CIVL 4420	CONSTRUCTION PLANNING & ADMINISTRATION .....	3
GENERAL STUDIES - CULTURE/CIVILIZATION EXPLORATION ELECTIVE	....	3
GENERAL STUDIES - ARTISTIC/CREATIVE/INTERDISCIPLINARY ELECTIVE	....	3
GENERAL STUDIES - SOCIETY/HUMAN INTERACTION ELECTIVE	....	3
CIVL 4400	HIGHWAY DESIGN AND TRANSPORTATION.....	3
		15

Graduates with the Bachelor of Science degree are qualified for an entry-level position as a Civil Engineering Technologist in construction, surveying, engineering, and architectural firms; local, state, and national government, environmental and public health agencies; state departments of transportation and highways; and private business and industry. Specific job titles include transportation technician, highway technician, engineer-in-training, materials supervisor, surveying crew chief, civil engineering detailer/designer, office engineer, construction estimator or planner, engineering assistant, project engineer, and assistant project manager. Baccalaureate graduates are eligible to sit for the Fundamentals of Engineering Exam (FE) in West Virginia, the first step in becoming a registered professional engineer.

### ASCE STUDENT CLUB

FSU was rated the "Most Outstanding Student Club" by ASCE national five out of the last six years. They have placed first in the Regional Concrete Canoe Competition the last three years, competing against all Engineering and Engineering Tech. programs in WV, VA, and Washington D.C. (13 universities). Winning regionals makes us eligible to participate in the National Concrete Canoe Competition.

### CONTACT INFORMATION

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### NOTES