

#### Architectural and Civil

**Program:** Engineering Technology

**Program Code:** 

TE ACT

**Academic Area:** 

Science, Technology, Engineering and Mathematics

Type:

Associate in Science

**CIP Code:** 15.0201

#### **Program Statement**

This concentration prepares students to work as technicians for engineering consulting firms, structural engineers, architects, bridge inspectors, contractors and structural manufacturing companies.

#### **Program Information**

- Students learn in modern laboratories on the latest computers and software and are taught by faculty with substantial professional experience. Students receive many hours of hands-on experience and exposure to background Architectural and Civil theory.
- Students should be in a Math (MTH) course every semester until they have completed their sequence.
- For students with adequate mathematical preparedness, and interested in transfer, PHY 211 can be substituted for PHY 101
- Completing courses in the summer will reduce fall and spring semester course loads.
- Oral Communication General Education Competency Infused.

#### **After Bristol**

- Graduates work as home building contractors, design construction technicians, structural computer aided designers, and industrial and commercial building fabricators.
- If you are considering transferring to a four-year institution, speak with your advisor and visit Transfer Services for additional information.

### **Degree Requirements**



## **General Education Courses**

Course #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3
ARC 201	Introduction to American Architecture	3
	HST 113 or HST 114	3
	Multicultural and Social Perspectives Elective	3

# **Program Courses**

Course #	Title	Credits
CAD 101	Computer Aided Drafting	3
CAD 122	Architectural Drawing	3
EGR 124	Soils and Foundations	3
EGR 125	Construction Estimating	3
EGR 221	Surveying I	4
EGR 222	Surveying II	4
EGR 251	Statics	3
EGR 254	Mechanics of Materials and Structures	4
	EGR 102 or EGR 103	3

# **Program Electives**

Course #	Title	Credits
	Architectural and Civil Technology Program Elective	3-4
	PHY 101: Technical Physics I	4
	Two-course Math Sequence	7-8

# Recommended Course Sequence - Semester 1

Course #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
EGR 125	Construction Estimating	3
PHY 101	Technical Physics I	4
	MTH 152, MTH 172 or MTH 214	3-4



## Recommended Course Sequence - Semester 2

Course #	Title	Credits
EGR 124	Soils and Foundations	3
ENG 102	Composition II: Writing about Literature	3
	MTH 172, MTH 214 or MTH 215	4
CAD 101	Computer Aided Drafting	3
	EGR 102 or EGR 103	3

## Recommended Course Sequence - Semester 3

Course #	Title	Credits
EGR 221	Surveying I	4
EGR 251	Statics	3
	HST 113 or HST 114	3
	Program Elective	3-4

## Recommended Course Sequence - Semester 4

Course #	Title	Credits
EGR 222	Surveying II	4
CAD 122	Architectural Drawing	3
EGR 254	Mechanics of Materials and Structures	4
ARC 201	Introduction to American Architecture	3
	Multicultural and Social Perspectives Elective	3
	Total credits:	60-62

## **Category Descriptions**

### HST 113 or HST 114

Credits: 3

Choose one of the following:

Course #	Title	Credits
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3

# <u>Multicultural and Social Perspectives Elective</u>

Credits: 3



#### Choose one of the following:

Course #	Title	Credits
ART 106	Survey of Art History II: Modern Art	3
GVT 111	U.S. Government	3
GVT 112	Comparative Government	3
HST 111	The West and the World I	3
HST 112	The West and the World II	3
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3
HST 257	History of Modern East Asia (China and Japan)	3
PSY 271	Global Leadership	3
SOC 101	Principles of Sociology	3
SOC 212	The Sociology of Social Problems	3
SOC 252	The Sociology of Human Relations	3

### EGR 102 or EGR 103

Credits: 3

Choose one of the following:

Course #	Title	Credits
EGR 102	Introduction to Sustainable and Green Energy Technologies	3
EGR 103	Computer Skills for Engineers and Technicians	3

# Architectural and Civil Technology Program Elective

Credits: 3-4

Choose one of the following:

Course #	Title	Credits
CAD 128	Civil Drafting and Design	3
CAD 125	3D Architecture, Building, and Landscape Design	3
CHM 113	Fundamentals of Chemistry I	4
EGR 244	Basic Drinking Water Treatment	4
EGR 299	Engineering Projects	4
GIS 101	Introduction to Geographic Information Systems	3
INT 210	Internship Experience I	3
PHY 102	Technical Physics II	4
	SCI 251 and HON 260	4

## PHY 101: Technical Physics I

Credits: 4





For students with adequate mathematics preparedness and interested in transfer, <u>PHY 211</u> may be substituted for PHY 101.

Course #	Title	Credits
PHY 101	Technical Physics I	4

# Two-course Math Sequence

Credits: 7-8

Choose one two-course math sequence.

Course #	Title	Credits
	MTH 152 and MTH 172	7
	MTH 172 and MTH 214	8
	MTH 214 and MTH 215	8