

# Engineering Design Technology

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## Engineering Design Technology Associate in Applied Science

### Mission Statement:

The mission of the Engineering Design Technology program is to provide the Upstate of South Carolina with professionally prepared entry-level CAD design technicians capable of making significant contributions to the progress of business and industry in the area.

### Entrance Requirements:

Acceptable placement test score(s), plus high school diploma or GED

### Type of Program:

Day or evening

### Employment Opportunities:

Manufacturing, industrial, engineering, mechanical contractors, design & build

- This program trains students to transform design and engineering solutions into 2-D drawings, 3-D models, and specifications using state-of-the-art CAD software, such that the product can be manufactured.
- To graduate with an associate degree, candidates must meet the computer competency requirement by taking EGR 130 or by passing the exemption exam at a cost to be assessed by the college.
- The EDT program is accredited by the Engineering Technology Accreditation of ABET ([www.ABET.org](http://www.ABET.org)).

### Recommended Program Schedule (^^See Note: Transitional Studies)

#### First Semester - Fall

ENG	101	English Composition I*	3.0
EGR	130	Engineering Technology Applications & Programming	3.0
MAT	110	College Algebra*	3.0
EGT	110	Engineering Graphics I	4.0
		Social/Behavioral Elective**	3.0

#### Second Semester - Spring

EGT	115	Engineering Graphics II	4.0
EGR	210	Introduction to Engineering CAD	3.0
EGR	175	Manufacturing Processes	3.0
PHY	201	Physics I*	4.0
MAT	111	College Trigonometry*	3.0

#### Third Semester - Summer

EGT	119	Geometrics	3.0
EGT	127	Descriptive Geometry for Drafters	3.0
SPC	205	Public Speaking	3.0

#### Fourth Semester - Fall

EGR	275	Introduction to Engineering/Computer Graphics	3.0
EGT	210	Engineering Graphics III	4.0
EGT	215	Mechanical Drawing Applications	4.0
EGR	170	Engineering Materials	3.0
EGR	194	Statics & Strengths of Materials	4.0

**Fifth Semester - Spring**

EGT	220	Structural & Piping Applications	4.0
EGR	255	Engineering Technology Senior Systems Project #	2.0
		or	
CWE		Cooperative Work Experience #	(6.0)
EGT	252	Advanced CAD	3.0
		Humanities Elective***	3.0
		Technical Elective++	3.0

**Total Required Credit Hours: 75.0**

# Department head approval required (two course minimum)

\*General education course

**\*\*Approved Social/Behavioral Electives**

ECO	211	Microeconomics*	3.0
PSY	201	General Psychology*	3.0
SOC	101	Introduction to Sociology*	3.0

**\*\*\*Approved Humanities Electives**

ART	101	Art History and Appreciation*	3.0
FRE	102	Elementary French II*	4.0
GER	102	Elementary German II*	4.0
HIS	101	Western Civilization to 1689*	3.0
HIS	102	Western Civilization Post 1689*	3.0
HIS	104	World History I*	3.0
HIS	105	World History II*	3.0
HIS	106	Introduction to African History*	3.0
HIS	115	African-American History*	3.0
HIS	201	American History: Discovery to 1877*	3.0
HIS	202	American History: 1877 to Present*	3.0
HSS	105	Technology and Culture*	3.0
HSS	295	Leadership through Humanities*	3.0
MUS	105	Music Appreciation*	3.0
PHI	101	Introduction to Philosophy*	3.0
PHI	110	Ethics	3.0
REL	101	Introduction to Religion*	3.0
REL	201	Religions of the World*	3.0
SPA	102	Elementary Spanish II*	4.0
SPA	201	Intermediate Spanish I*	3.0
THE	101	Introduction to Theatre*	3.0

**++Technical Electives**

CET	220	Concrete and Steel Design	3.0
EET	227	Electrical Machinery	3.0
EGT	245	Principles of Parametric CAD	3.0
EGT	251	Principles of CAD	3.0
MET	211	Strength of Materials	4.0
MET	213	Dynamics	3.0
MET	214	Fluid Mechanics	3.0
MET	226	Applied Heat Principles	4.0
MTT	211	Die Theory	3.0
MTT	245	Rapid Prototype Setup & Operations	3.0

++Other technical electives may be approved upon review by the EDT department head.

^^Note: Transitional Studies:

The course schedule listed above is designed for students who begin the program with ENG 101 and MAT 110 based on the placement test. Students that are taking pre-requisite courses for MAT 110 should also take the following courses: COL 103 for students taking MAT 100 and/or EGR 102 for students who are taking MAT 105.

Note: Please contact your advisor for recommended evening schedules.

Visit <https://www.gvltec.edu/gainful-employment/> for important information about the educational debt, earnings and graduation rates of students who attended programs.