

ENGINEERING TECHNOLOGY

Degree: Bachelor of Science
 Specializations: Construction, Electrical, Information Engineering Technology
 Minors: Building Construction, Electrical Engineering Technology, Manufacturing Engineering Technology
 Certificate: Technology Systems Support
 Department: Engineering and Computer Technology
 Building 70
 (850) 474-2484
<http://cops.uwf.edu/dectect@uwf.edu>
 College: Professional Studies
 Semester Hours Required for Degree: 120
 Faculty: K. Rasmussen (Chair), D. Dawson, B.C. Havard, S. Kamalasan, R.L. Lee

The Engineering Technology program prepares graduates for a variety of engineering associated positions with industry.

The Construction specialization examines construction of all types and prepares the student for career roles such as project manager, construction superintendent, and estimator. The program teaches methodologies for managing cost control and processes through courses in contracting, scheduling, and business management. A combination of all coursework applies to any graduate who desires to sit for the residential or general contractor's exam.

The Electrical specialization provides a strong background in electrical and electronics related fields preparing graduates to apply mathematical and scientific concepts to solving real-world problems. Individuals develop skills such as analog and digital electronics design, development and analysis of industrial electricity and power systems, electric circuit theory, and design and operation of microcontrollers and communication systems. Employment opportunities exist in instrumentation, communications, digital systems, power systems, manufacturing, and other related fields. The graduates may also be involved in research, development, maintenance, production or sales in the area of electrical engineering.

The Information Engineering Technology Specialization prepares individuals to assume roles in network, telecommunications, and instructional systems support in a wide variety of organizations, including those with main missions in training, education, and distance learning. These roles include design, development, implementation, maintenance, and adaptation of technologies to meet the organizational goals. The program is designed for delivery at a distance and exploits technology to offer learners opportunity to pursue the degree even when regular attendance is problematic or relocation is necessary.

Contact the department for information concerning the certificate.

PROGRAM REQUIREMENTS

In addition to general University requirements, students seeking the B.S. in Engineering Technology must meet the requirements listed below.

Students should consult with their academic advisor for courses which may satisfy both the General Studies requirements and common prerequisites. A minimum grade of "C-" is required in major courses.

Courses preceded by "*" are taught at Florida community/junior colleges.

CONSTRUCTION SPECIALIZATION

General Studies (36 sh)

For additional information see the General Studies section of this *Catalog*.

Common Prerequisites (24 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program.

ACG	2021	Principles of Financial Accounting.....3 [ACG X021 or ACG X001 and ACG X011]
ACG	2071	Principles of Managerial Accounting.....3 [ACG X071]
MAC	1105	College Algebra.....3 [MAC X105]
+MAC	1114	Trigonometry2 [MAC X114]
+MAC	1140	Precalculus Algebra3 [MAC X140]
+MAC	2311	Analytic Geometry & Calculus I.....4 [MAC X311]
+PHY	2053	General Physics I.....3 [PHY X053]
+PHY	2054	General Physics II3 [PHY X054]

+ Indicates common prerequisites which can be used to satisfy General Studies requirements.

Lower Division Electives (0-12 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Recommended electives include CGS 2570, EET 1080 and EET 1940.

Major (51 sh)

Engineering Technology Core (9 sh)

EGS	3613	Principles of Engineering Economy3
ETD	2320	Computer Aided Design3
ETD	4353C	Project Conceptualization and Presentation.....3

Construction Specialization (select 42 sh)

BCN	2272	Blueprint Reading.....3
BCN	2405	Statics and Strength of Materials3
BCN	3281C	Construction Surveying & Building Layout....3
BCN	3561	Construction Mechanics I.....3
BCN	3590	Sustainable Construction3
BCN	3731	Construction Safety.....3
BCN	3762	Building Codes.....3
BCN	3767	CDT Prep Course: Construction Documents3
BCN	4431	Structures.....3

BCN 4461	Soils, Concrete and Masonry	3
BCN 4564	Construction Mechanics II	3
BCN 4701	Construction Administration.....	3
BCN 4720C	Scheduling	3
BCN 4940	Construction Internship/Senior Project	3
ETI 3445	Construction Estimating.....	3
3000/4000	Advisor Approved Electives.....	3-6

Major-Related (9 sh)

MAN 3583	Project Management	3
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Choose one:

ENC 3250	Professional Writing.....	3
GEB 3213	Writing for Business: Theory and Practice ...	3

Choose one:

BUL 3130	Legal Environment of Business	3
MAN 3025	Management Fundamentals.....	3
PLA 3429	Contracts and Business Entities.....	3
PLA 3613	Property Law and Transactions.....	3

Upper-Division Electives (0 sh)

ELECTRICAL SPECIALIZATION

General Studies (36 sh)

For additional information see the General Studies section of this *Catalog*.

Common Prerequisites (35 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida Public/Community Colleges and Universities.

•CET 2113C	Digital Fundamentals/Lab.....	4
	[EET X112C or CET X113C]	
•EET 1015C	DC Circuits/Lab	4
	[EET X015C]	
•EET 1025C	AC Circuits/Lab.....	4
	[EET X025C]	
•EET 1141C	Electronic Devices & Circuits I/Lab.....	4
	[EET X141C]	
•EET 1142C	Electronic Devices & Circuits II/Lab.....	4
	[EET X142C]	
+MAC 1105	College Algebra	3
	[MAC X105]	
+MAC 1114	Trigonometry	2
	[MAC X114]	
+MAC 2311	Analytic Geometry & Calculus I	4
	[MAC X311]	
+PHY 2053	General Physics I	3
	[PHY X053]	
+PHY 2054	General Physics II	3
	[PHY X054]	

• Courses available at Florida's Community Colleges

+ Indicates common prerequisites which can be used to satisfy General Studies requirements.

Lower Division Electives (0-1 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Recommended electives include CGS 2570, EET 1080 and EET 1940.

Major (52 sh)**Engineering Technology Core (9 sh)**

Same as Construction Specialization.

Electrical Specialization (43 sh)

CET 3135/L	Microcontroller Technology/Lab.....	4
EET 3038C	Advanced Circuit Analysis	4
EET 3218C	Control Systems Technology	4
EET 3326C	Communication Systems	4
EET 4146	Electronic Circuits and Application Technology	3
EET 4356C	Advanced Communication	4
EET 4513	Electric Machinery	3
EET 4548	Power Systems Technology	3
EET 4935	Special Topics in Electrical Engineering Technology	3
EET 4941	Internship/Project in Electrical Engineering Technology.....	3
EST 3543	Programmable Logic Controllers	4
EST 4538/L	Instrumentation/Lab	4

Major-Related (7 sh)

MAC 2312	Analytic Geometry & Calculus II	4
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Choose one:

CGS 3464	Programming Using Visual Basic for Non-Majors	3
COP 2253	Programming Using Java.....	3
COP 2334	Programming Using C++	3

Upper-Division Electives (1 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

**INFORMATION ENGINEERING
TECHNOLOGY SPECIALIZATION**

General Studies (36 sh)

For additional information see the General Studies section of this *Catalog*.

Common Prerequisites (18 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program.

EME 2040	Introduction to Educational Technology.....	3
	[EME X040]	
+MAC 1105	College Algebra	3
	[MAC X105]	
+MAC 1114	Trigonometry	2
	[MAC X114]	
+PHY 2053	General Physics I	3
	[PHY X053]	
+PHY 2054/L	General Physics II/Lab.....	4
	[PHY X054/L]	
+STA 2023	Elements of Statistics.....	3
	[STA X023]	

+ Indicates common prerequisites which can be used to satisfy General Studies requirements.

Lower Division Electives (6-19 sh)

Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Recommended elective is EET 1080.

Major (30 sh)

Engineering Technology Core (9 sh)

Same as Construction Specialization.

Information Engineering Technology Specialization (21 sh)

EME	3402	Information Engineering Technology: An Overview	3
EME	3406	Web Environments for Learning and Information	4
EME	4454	Distance Education Technologies	3
EME	4622	Technology Tools: Site-based Educational Networks	4
EME	4627	Education and Training Technology Support Systems	4
EME	4944	Internship/Practica in Technology	3

Major-Related (19 sh)

ENC	3250	Professional Writing	3
MAC	2311	Analytic Geometry and Calculus I	4
COP	4710	Database Systems	3

Choose one:

PHI	2603	Ethics in Contemporary Society	3
SPC	2016	Basic Communication Skills	3

Choose one:

ISM	3011	e-Business Systems Fundamentals	3
ISM	4300	Systems Planning, Design & Control	3
MAN	3025	Management Fundamentals	3

Choose one:

CGS	3464	Programming Using Visual Basic for Non-Majors	3
COP	2253	Programming Using Java	3
COP	2334	Programming Using C++	3

Upper Division Electives (11 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.

MINORS

Building Construction (15 sh)

Construction Specialization majors may not earn this minor.

BCN	3731	Construction Safety	3
BCN	3762	Building Codes	3
BCN	3767	CDT Prep Course: Construction Documents	3
BCN	4701	Construction Administration	3
ETD	2320	Computer-Aided Design	3

Electrical Engineering Technology (16 sh)

Electrical Engineering Technology Specialization majors may not earn this minor.

EET	3038C	Advanced Circuit Analysis	4
EET	3504C	Applications of Industrial Electricity and Electronics	3
EET	4513	Electric Machinery	3
ETD	4353C	CAD, Simulation and Modeling in ET Projects	3
ETI	3112	Applications of Quality Control	3

Manufacturing Engineering Technology (15 sh)

Manufacturing Specialization majors may not earn this minor.

EET	3504C	Applications of Industrial Electricity and Electronics	3
ETD	4353C	CAD, Simulation and Modeling in ET Projects	3
ETI	3112	Applications of Quality Control	3
ETI	3445	Construction Estimating	3
ETI	4411	Production Science	3