College of Professional Studies

Engineering and Computer Technology

(Undergraduate Programs)

November, 2008

What's ECT All About?

The Department of Engineering and Computer Technology houses undergraduate and graduate programs in

- Building Construction
- Electrical Engineering Technology
- Information Technology (Networking and Telecommunications)
- Career and Technical Education
- Instructional and Performance Technology

Department faculty work with students to ensure that students develop skill sets that permit them to work in their respective fields and assume strategic team member roles as they apply innovative planning and problem solving to further the goals of their organizations.

Faculty and students participate in a variety of interdisciplinary activities, involving field experiences, applied research and outreach. Students and faculty are involved with industry partners through projects, internships, and research.

Two undergraduate programs, *IT: Networking and Telecommunications* and *Career and Technical Education* are available completely online. All programs integrate technology to help students develop a wide variety of technology skills and abilities.

Quick Facts about ECT

- *4 full-time and 1 part-time faculty, along with adjuncts, support 310 undergraduate students in areas of Career and Technical Education, Building Construction and Electrical and Information Technologies.*
- *From Fall, 2003 through Fall, 2007 the construction program grew from 32 to 120 students.*
- *$476,000 (including a state match) in gifts have been raised for Building 70 renovation.*
- *110 students graduated from Engineering Technology programs from 2004-2007.*

Building Construction

For information, Contact Ms. Glenda Mayo, gmayo@uwf.edu

Construction professionals are in heavy demand in many different careers — including estimator, field engineer or supervisor, project manager, safety coordinator, project planner, construction superintendent, and code administrator. UWF's Building Construction program combines theoretical knowledge, hands-on experience, and technology integration.

Areas that are covered in the Building Construction program include planning and layout, site preparation, building materials, building codes, construction safety, contracting, scheduling, and business management. The program prepares students to site for the residential or general contractor's exam.

Coursework is delivered in multiple ways — in class, in the field and online — to help you develop knowledge, skills, and abilities needed to meet future professional challenges.

Construction Internships and Career Nights

Students participate in a wide variety of activities to help them enter the world of work, including internships, and a yearly Career Night, sponsored by the Building Construction program and Career Services. Employers have the opportunity to meet students and faculty.

Participating in paid and unpaid internship experiences, students work in a wide variety of businesses, including Bill Smith Electric, Nufab Rebar, Green-Simmons Company, Morette Construction, and Flintco.

Professor for a Day, Dale Pervis, shares his experiences with Construction students.

BEST HOUSE: A DEMONSTRATION HOUSE AT UWF

Sustainable … Durable … Affordable Housing

Completely built with private funds, the BEST House at UWF will showcase green building strategies, techniques for incorporating renewable and sustainable design and maintenance, and serve as a research and demonstration centerpiece in the area of power supply and demand side management. The BEST House can be used as a microenvironment that embodies energy generation, conservation, and green building best practices.

A collaborative effort involving UWF's Building Construction Program, UWF Architectural and Engineering Services, and area businesses and industry who are committed to "green" construction and sustainable development, the BEST House serves as a central point of focus for interdisciplinary activities, research, and outreach.

The name *BEST House* is derived from the four foundational ideas: **build, educate, sustain**, and **technology**. The BEST House will be a centerpiece of research, application and trends, as related to sustainability, especially in terms of the construction industry and energy. The BEST House provides a venue to share research and information for the community as it relates to structures and life in Northwest Florida.

WE'RE ON THE WEB

Find out more about the BEST House

http://uwf.edu/besthouse

NETWORKING AND TELECOMMUNICATIONS

For information, Contact Dr. Dave Dawson, ddawson@uwf.edu

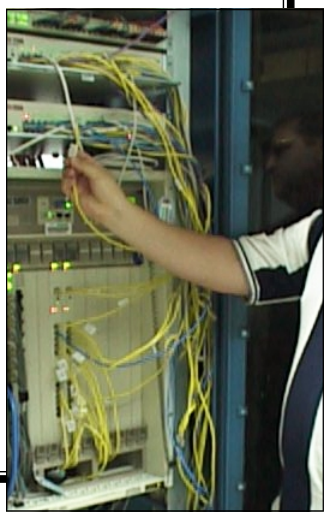
Programs in networking and telecommunications are designed for students who wish to pursue a career in the design, implementation, and maintenance of networking and telecommunication systems. Students pursue one of two interest areas — a scientific core (Information Engineering Technology) or a business core (Information Technology: Networking and Telecommunications).

The programs enable students to develop skills that permit them to use and manipulate a variety of technologies in innovative ways. Students develop skills in working with organizations and planning that are founded on the implementation of complex systems. A strong component in evaluation processes and procedures is included to help students determine performance and integration effectiveness and efficiencies of WHY, HOW, and WHEN of systems.

Coursework is practically-based with students working on real-world problems, exploring possibilities and generating answers to problems. Based on theoretical principles, students apply what they've learned in a variety of ways.

All students participate in an internship at the end of their program of study to help put into practice technical and people skills to help them interact with technical and nontechnical team members.

Techie or not, this program is for individuals who are interested in implementing, maintaining, and adapting technologies to support organizational networks, telecommunications, and distance learning initiatives aligned with their organization's strategic goals.



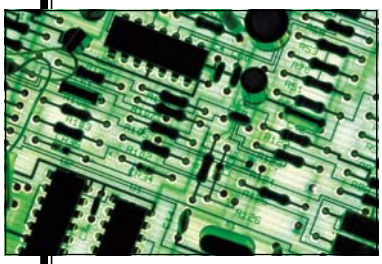
Electrical Engineering Technology

For information, Contact Dr. Sukumar Kamalasadan, skamalasadan@uwf.edu

All EET Students participate in their own research and senior projects, in addition to internships and co-ops. Students intern and co-op at organizations such as Gulf Power, Averett Technologies, Schmidt Consulting Group, Avalex Technologies, Pensacola NAS, and the City of Robertsdale). Several students' work has been published and presented at conferences.

Projects have included:

- Development of an analog clipping preamp based on the Tube Screamer design.
- Mobile Robot Tracking
- Control of Electric Motors
- Temperature Control of Crystal Oscillator
- Design and Development of an OPAMP-based circuit
- Analog/Digital Transmitter/Receiver
- Modeling of Hydrogen Fuel Cells
- Design of Electronic Bike
- Circuit Analysis and Microcontrollers



EET students develop strong foundations in electrical and electronics-related content. Students are ready to apply mathematical and scientific concepts to solving real-world problems. Skills are developed in areas such as analog and digital electronics design, industrial electricity and power systems, electric circuit theory, and microcontrollers and communication systems.

Dr. Sukumar Kamalasadan has received a NSF CAREER grant to develop next-generation intelligent control and optimization architectures, focusing on power system dynamics optimization and control.

Students in the EET program develop highly technical, broadly-scoped knowledge, skills, and abilities the focuses on application of theory to practice.

Articulation Agreements — Career Academies

Interest in the construction industry continues to expand throughout the educational system. UWF is working with educational partners throughout the region to develop articulation agreements that provide a pathway for students from High School, through Community College, to the University.

Through these articulation agreements students who complete Career Academies in Construction-related programs receive college credit toward their B.S. in Building Construction. Interested students should contact their guidance counselors or UWF's Building Construction program at ect@uwf.edu.

From high school career academies to post-secondary education ... educators in partnernship, developing highly qualified professionals.

Meet Our Alumni

Visit our Alumni Spotlight to see how our graduate impact their world. ECT alumni work all over the world. From working in the construction industry to serving in our military, to leading technology and distance learning efforts, our alumni make a difference every day as they work to resolve problems, build structures, teach, and help others meet their full potential.

Spotlight on Alumni

http://uwf.edu/ect

College of Professional Studies

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We're on the Web

http://uwf.edu/ect

Career and Technical Education

For information, Contact Dr. Jill White, jwhite@uwf.edu

Interested in a teaching or administrative career in of the most rapidly growing fields in education today?

Then *Career and Technical Education* is for you.

Teaching in CTE enables you to prepare the workforce of the future. In the CTE Teacher Education Specialization, students are prepared to teach at the middle school, high school, or Career and Technical Center. District-approved certification can be obtained in business education, industrial and technical education, health occupations, marketing education and technology education.

In the Program Development Specialization, students are prepared to plan, supervise, conduct and evaluate training programs in business, industry, and government.

CTE faculty have real-world experience and strong linkages to district personnel and workforce development professionals. CTE courses are offered online to facilitate access by students who have full-time jobs or live outside the Pensacola area.

Getting Started on Your Own Journey

The steps to your new future are easy as 1-2-3:

1. Find out more information:

Visit UWF's main website to learn more about UWF, our students, and our own journey — http://uwf.edu

Visit the Department website at http://uwf.edu/ect for more information about degree programs, program goals, and information about careers.

Call (850-474-2484) or email (ect@uwf.edu) for more information and to contact an advisor.

2. Apply:

Online applications are available — access through the Department website.

Send transcripts to UWF.

3. Start Classes:

Meet with an advisor to establish your program of study and register for classes.