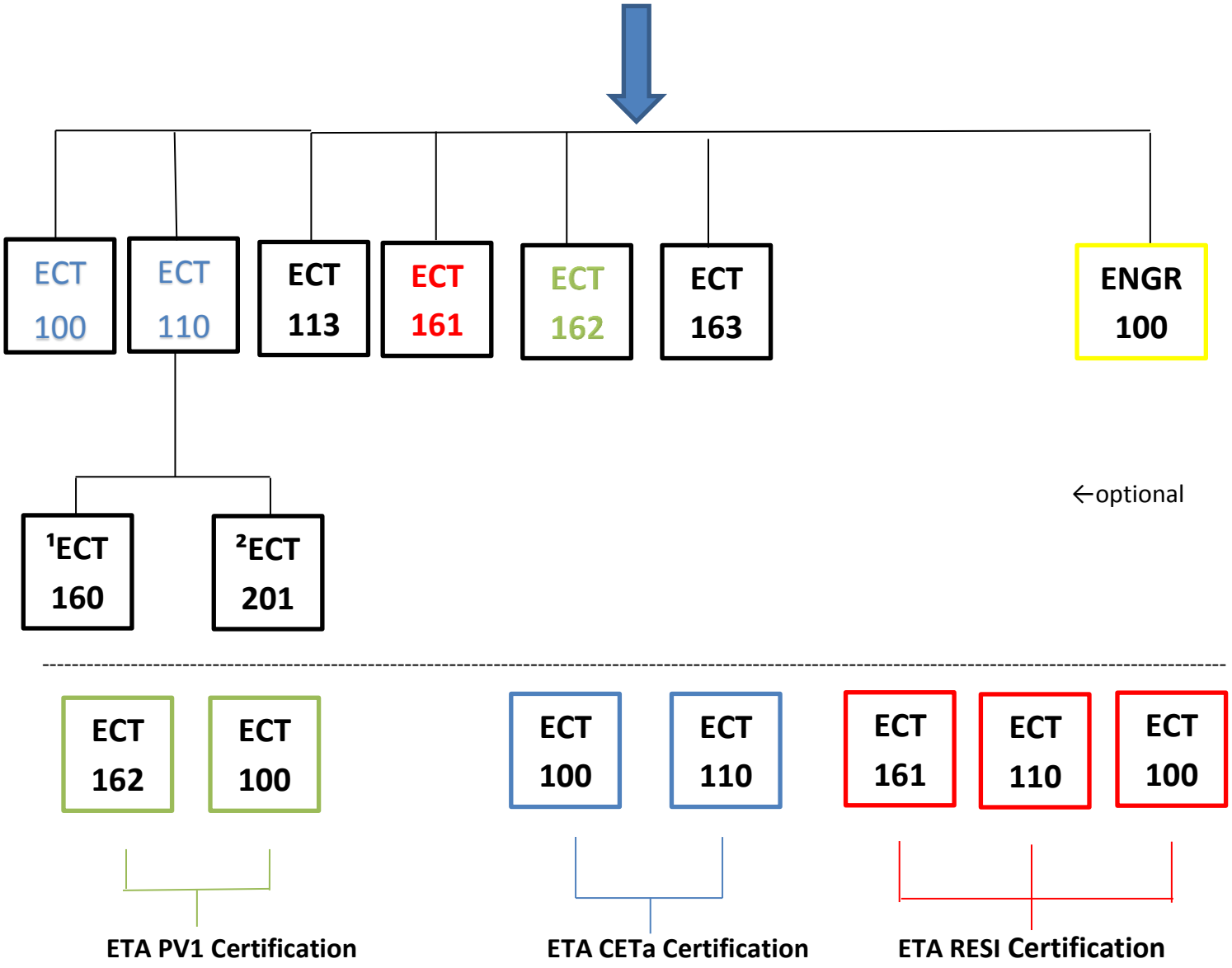
Electronics and Computer Technology Department

Is Now Offering!

Required Courses for Electronics Technology Technician Certification



[1]Student will be permitted to take ECT 160 with ECT 110.

[2]Student will be permitted to take ECT 201 with ECT 110.

*For more information, please contact:

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Electronics Technology Technician Certification			
PREREQUISITE COURSES	**REQUIRED COURSES FOR CERTIFICATE**		**UNITS**
	ECT 100	ECT 100 is designed to offer the student a comprehensive study in the mathematics specifically used in the electronics and computer technology field. Phases covered include application of algebra, DC circuit analysis, AC fundamentals, simultaneous equations, AC circuit analysis, complex numbers, logarithms, and computer number systems.	3
	ECT 110	ECT 110 teaches the principles and applications of electricity and electronics. Topics include basic laboratory equipment, various electronics components, and designing/troubleshooting electronic circuit. This course provides students with the knowledge and skills of electricity and electronics and will enhance their success in both their present career and/or advanced education in this field.	4
	ECT 113	ECT 113 is a comprehensive course providing functional training in the concepts of high-reliability soldering, solder extraction, and electronics component removal/replacement, including terminal interconnections using wire-wrap techniques, and specialized high-technology industrial equipment. This course also encompasses rework, repair, and modification of electronic printed circuit boards. Additionally, automated industrial wave solder processes are studied. Laboratory work emphasizes hands-on experience in detailed applications using specialized industrial work stations, and automated industrial wave solder processes equipment.	1
ECT 110 or can be taken with ECT 160 at the same time*	ECT 160	ECT 160 is a course designed to introduce the student to the National Electrical Code (NEC) using national, state and local codes. Included in the course are duties of the electrical inspector with emphasis on code enforcement, inspection procedures, plan reading, electrical symbols and terminology. Methods of performing electrical inspections and interpreting electrical systems are based on the current electrical codes and standards. Emphasis will be placed on the importance of safety, asbestos abatement awareness, and anchoring and supporting for earthquake mitigation. Quality workmanship, efficient and well-designed electrical systems, and retrofitting will be emphasized.	3
	ECT 161	ECT 161 is an introduction to the Residential Electronics Systems Integrator (RESI). Topics include the design of prewiring for home theater and telecommunications equipment interconnection, network installation, and wiring for cable TV, satellite and antenna outlets, telephone equipment outlets, audio and video entertainment, and computer equipment. Student may become certified by Electronics Technician Association (ETA) International by passing the knowledge examination assessment, RESI BASIC skills and knowledge.	3

	ECT 162	ECT 162 covers key aspects of solar power. This course covers the basics of solar energy and prepares the student to enter the job market as a solar technician in sales, installation, or repair. Topics also include the concepts behind installing and troubleshooting solar panels. This class helps in preparing students to pass the Photovoltaic Installer examination and becoming certified by Electronics Technician Association (ETA) International.	3
ECT 110 or can be taken with ECT 201 at the same time*	ECT 201	ECT 201 encompasses the study of Solid-State semiconductor theory, including diode rectifiers, filtered power supplies, transistor and FET amplifiers, IC oscillators, and thyristor devices. Laboratory experiments consist of constructing solid-state circuits, and performing circuit analysis and diagnostics of electronic parameters using state of-the-art digital electronic test equipment.	3
	ECT 163	Electronics and Computer Technology 163 covers key aspects of energy management. This class covers the basics of energy management and will prepare the student to enter the job market as energy managers and energy professionals. Topics also include concepts of greenhouse gas emissions management and energy savings. This class will help in preparing students to pass the Certified Energy Management (CEM) examination and becoming certified by Association of Energy Engineers (AEE	3
	ENGR 100	Engineering 100 introduces students to the profession and disciplines of engineering and the engineering design process. Instruction includes computer skills and communication strategies utilized in engineering..	3
	TOTAL UNITS REQUIRED		**26**