

# COURSE SYLLABUS

<b>Course Title:</b>	Electronics		<b>Date submitted:</b>	Spring 2014 (AAC: 14-27)
<b>Department:</b>	Business/CIS/Technology			
<b>Curriculum:</b>	Engineering Science/Technology Studies			
<b>Course Descriptors:</b> Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	<b>Course Code:</b> (eg. ACC 101)	EET*132	<b>Prerequisites:</b>	
	<b>Course Type:</b>	X	C- or better in Fundamentals of Electricity (EET*103)	
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: Internship M: Seminar P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/ Clinical/Lab Z: Combined Lecture/Studio			
	<b>Elective Type:</b>	G		
	AH: Art History E: English FA: Fine Arts FL: Foreign Language G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences M: Math S: Science SS: Social Science			
	<b>Credit Hours:</b>	3	<b>Corequisites:</b>	
	<b>Developmental:</b> (yes/no)	No	None	
	<b>Contact Hours:</b>	Lecture: 3 Clinical: 0 Lab: 0 Studio: 0 Other: 0 TOTAL: 3		
	<b>Class Maximum:</b>	19	<b>Other Requirements:</b>	
	<b>Semesters Offered:</b>	Sp	None	
<b>Ability Based Education (ABE) Statement</b>	At Tunxis Community College students are assessed on the knowledge and skills they have learned. The faculty identified the General Education Abilities critical to students' success in their professional and personal lives. In every class, students are assessed on course abilities, sometimes program abilities, and, in most classes, at least one General Education Ability. Students will receive an evaluation of the degree to which they have demonstrated or not demonstrated that General Education Ability.			
<b>Catalog Course Description:</b>	Surveys solid state devices and analog circuits, including diodes, transistors, amplifiers, filters, rectifiers, regulated power supplies, and control devices. Three-hour lecture, three-hour lab.			
<b>Topical Outline:</b> List course content in outline format.	1. The Electron Theory 2. Safety			

	<ol style="list-style-type: none"> <li>3. Instrument Use</li> <li>4. Sources and Effects of Electricity</li> <li>5. DC Circuits</li> <li>6. Magnetism</li> <li>7. Residential Wiring</li> <li>8. Alternating Current Fundamentals</li> <li>9. Inductance and Inductors</li> <li>10. Transformers</li> <li>11. Capacitance and Capacitors</li> <li>12. Motors and Generators</li> </ol>
<p><b>Outcomes:</b> Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p><b>Upon successful completion of this course, the student will be able to do the following:</b></p> <p><b>COURSE:</b> Students enrolled in Fundamentals of Electronics will demonstrate proficiency with regard to:</p> <ol style="list-style-type: none"> <li>1. the electron theory and its importance in electronics;</li> <li>2. the relationship between magnetism and electricity;</li> <li>3. the proper use of tools and instruments use in the electronics field;</li> <li>4. the sources of electricity and the importance of each course;</li> <li>5. the construction and trouble shooting of simple electric circuits;</li> <li>6. safe working habits in the electrical field;</li> <li>7. the design and installation of household electrical circuits;</li> <li>8. the generation and transmission of alternating current;</li> <li>9. inductance and its effect of electrical circuits;</li> <li>10. transformer uses and operation;</li> <li>11. capacitance and its effects on electrical circuits; and,</li> </ol> <p>the operation and construction of simple motors and generators.</p> <p><b>PROGRAM:</b> <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <p>7. <b>Quantitative Reasoning</b> -Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.</p> <p><b>Demonstrates:</b> Interprets numerical information and applies sufficient laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p> <p><b>Does Not Demonstrate:</b> Misinterprets numerical information or insufficiently applies laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.</p>
<p><b>Evaluation:</b> List how the above outcomes will be assessed.</p>	<p><b>Assessment will be based on the following criteria:</b></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> </ol>

<p><b>Instructional Resources:</b></p> <p>List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p><b>Required:</b></p> <p><b>Desired:</b></p>
<p><b>Textbook(s)</b></p>	<p>Refer to current academic year printout.</p>