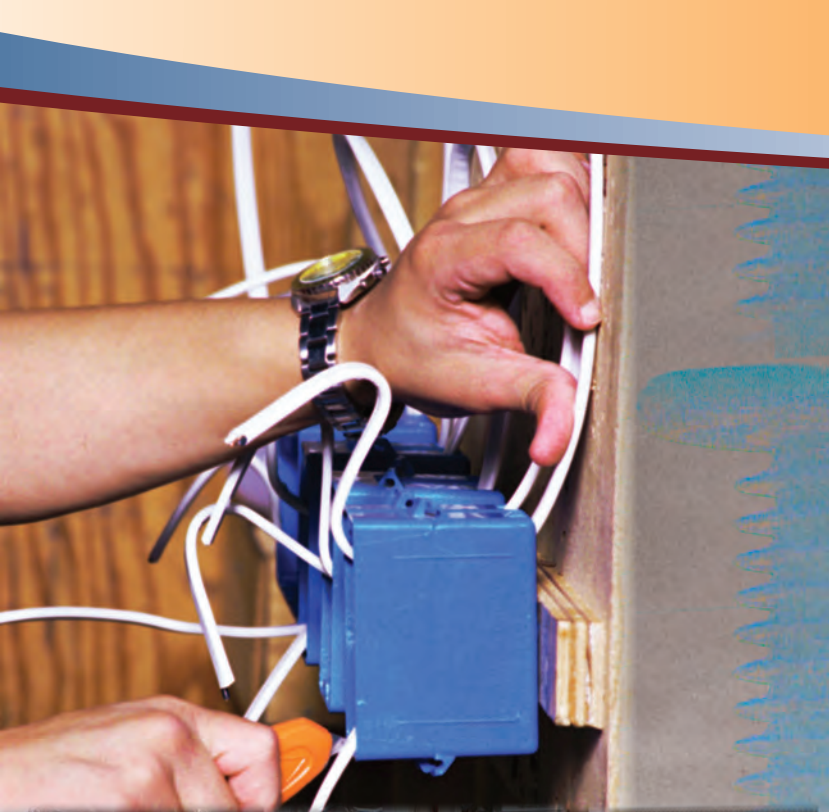
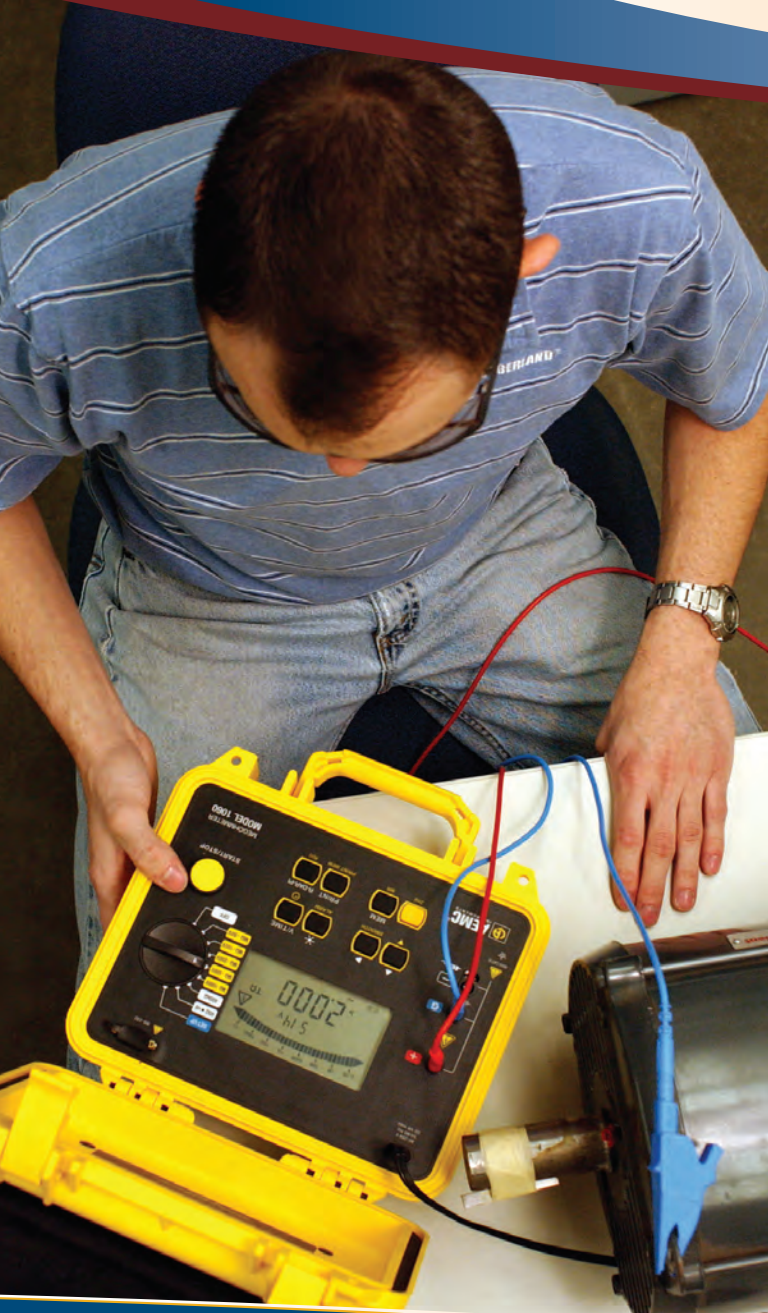


Electrical Systems Technology



Texas State Technical College Waco is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Associate of Applied Science degrees and Certificates of Completion. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Texas State Technical College Waco.

Equal opportunity shall be afforded within the Texas State Technical College System to all employees and applicants for admission or employment regardless of race, color, gender, religion, national origin, age or disability. TSTC will make reasonable accommodations for persons with disabilities.

Electrical Power & Control Technology

Bryan Necessary, Department Chair

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Electrical Power & Control
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If you don't think a career in the electrical industry is important, consider this: When Hurricane Irene slammed the East coast in August 2011, more than 4 million people lost power. It took weeks to restore power to many of those affected.

Electricity plays a crucial role in today's society. Just ask hospitals that depend upon it for life-saving medical devices; cities that can be devastated by rioting and looting in a blackout; or homebound people who must have a vital communication link to the outside world.

The demand for electricity continues to grow and with it, the need for skilled, knowledgeable technicians becomes more crucial than ever. That's where you come in. As a graduate of the Electrical Power & Control program at Texas State Technical College, you'll be poised to step into a career field that can yield rewarding results.

The Electrical Power & Control program at TSTC is the only two-year associate degree program in Texas specifically focused on power technology. It provides essential classroom instruction combined with intensive hands-on laboratory training to prepare you to step confidently into your new career.

EPC students receive a solid foundation in electrical concepts, motor and control applications, electronics, measurement and calibration, electrical codes and automated control systems, all of which can lead to outstanding job opportunities throughout the United States and abroad.

Understanding and knowledge is developed through extensive work with equipment such as DC and AC motors, PLCs, speed drive systems and computer software packages for engineering, designing and drafting. One laboratory, partially funded with a grant from the National Science Foundation, allows for in-depth study of microprocessor-related data transfer and automatic control, with emphasis on Distributed Process Control and Discrete Component Manufacturing.

Graduates of the EPC program can get a two-year associate degree that can lead to exceptional wages. Although entry-level wages are typically lower, data from the U.S. Bureau of Labor Statistics indicates average annual salaries for Electrical and Electronics Repairers, Powerhouse, Substation, and Relay technicians were \$64,120 as of May 2010. Salaries vary by location, employer and experience.



EPC Advisory Committee

Keith Armstrong, ECP Tech Services, Houston
 Alan Autenrieth, Conoco-Phillips, Sweeny
 Kevin Barnett, Shermco Industries Inc., Dallas
 Eric Beckman, National Switchgear Systems Inc., Lewisville
 Pat Beisart, Shermco Industries Inc., Dallas
 Rob Bishop, TXU Electric, Glen Rose
 Oscar Brown, Brown Industrial Sales & Services., Houston
 Thad Brown III, Shermco Industries Inc., Dallas
 Mike Davis, TRANE, McGregor
 Dwayne Defrees, Oncor, Waco
 Alan Edwards, Oncor Electric Delevry, Plano
 Chris Fetterman, ECP Tech Services, Houston
 Jarrod Foster, Alliance Inc., Beaumont
 John Fry, NRG Texas, Jewett
 Randall Gannon, Invista, Victoria
 Ramon "Ray" M. Garcia, Invista, Victoria
 Art Gordon, Humphrey & Associates Inc., Fort Worth
 L.S. (Stan) Huntsinger, Premier Technical Services, Lorena
 Mike Huston, The Dow Chemical Co., Freeport
 Dennis Janak, Tidal Power Services, Hallettsville
 Bert Johnson, Packless Industries, Waco
 Walter Koopmann, City of Georgetown, Georgetown
 Allan Kunze, Lower Colorado River Authority, Austin
 Artis Lawson, City of College Station, College Station
 Dick Lux, Five Star Electric Motors, San Antonio
 Johnny Marinik, Wilsonart International - North Plant, Temple
 Randy Martin, Englobal Engineering, Beaumont
 Mike Murray, Tenneco Packaging, Corsicana
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 Shane O. Sullins, Invista, Victoria
 Tim Swanson, TRANE, Carrollton
 Terry Taylor, Luminant, Glen Ross
 Wayne Taylor, INEOS O&P, Alvin
 Kevin Tolly, Plastipak Packaging Inc., Garland
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 Mollie Walker, NRG Texas LLC, Jewett
 Gerald Wentreck, Ralph Wilson Plastics, Temple,
 Jim White, Shermco Industries Inc., Dallas
 Ron Widup, Shermco Industries Inc., Dallas
 Jake Willcox, Englobal Engineering, Beaumont
 Steve Zeder, Square D Field Services, Coppell

Electrical Systems Technology

Associate of Applied Science Degree

Total Credits: 72

First Semester		Credits
TECH [^]	1100	Tech Success
CTEX [^]	10XX	Tech Success Seminars (3 as assigned)
IEIR	1302	Introduction to Direct Current Circuits
ENGL	1301	Composition I
MATH	1316	Plane Trigonometry
ACGM	X3XX	Gen Ed Social Science Course
Semester Total		12

[^] Institutional Credit Only

Second Semester		Credits
EEIR	1309	National Electrical Code
ELPT	1341	Motor Control
IEIR	1304	Alternating Current Circuit for Indust Apps
INTC	1341	Principles of Automatic Control
Semester Total		12

Third Semester		Credits
CETT	1325	Digital Fundamentals
DFTG	1313	Drafting for Specific Occupations
ELPT	2319	Programmable Logic Controllers I
INTC	1355	Unit Operations
Semester Total		12

Fourth Semester		Credits
ELPT	1351	Electrical Machines
ELPT	2375	Electrical Theory and Devices
INTC	1356	Instrumentation Calibration*
INTC	2333	Instrumentation and Installation
Semester Total		12

Fifth Semester		Credits
INTC	1343	Application of Industrial Automatic Control
INTC	2336	Distributed Control and Programmable Logic
PHYS	1310	Fundamentals of Physics
ACGM	X3XX	Gen Ed Humanities/Fine Arts Course
Semester Total		12

Sixth Semester		Credits
ELPT	2323	Transformers
ELPT	2331	AC/DC Drives
ELPT [❖]	2343	Electrical Systems Design
ELPT	2347	Electrical Testing and Maintenance
Semester Total		12

[❖]Capstone course: A required learning experience which results in a consolidation and synthesis of a student's educational experience. The capstone experience certifies mastery of entry-level work place competencies.

Courses are subject to change. Contact the department chair for updates.

Electrical Systems Technology

Associate of Applied Science Degree

Estimated Program Cost

(Effective Fall 2011)

		REQUIRED FEES		
Term No.	Credit Hours	Technical Tuition@ \$97/cr. hr.	Academic Tuition @ \$82/cr. hr.	Designated Tuition @ \$46/cr. hr.
1	12	\$582.00	\$492.00	\$552.00
2	12	582.00	492.00	552.00
3	12	873.00	246.00	552.00
4	12	1,164.00	.00	552.00
5	12	1,164.00	.00	552.00
6	12	1,164.00	.00	552.00
		\$5,529.00	\$1,230.00	\$3,312.00

OTHER CHARGES

Term No.	Textbooks & Supplies	Tools & Equipment	Cost per Semester
1	\$340.86	\$282.19	\$2,249.05
2	399.46	30.96	2,056.42
3	234.78	195.52	2,101.30
4	182.87	69.96	1,968.83
5	376.17	78.63	2,170.80
6	150.00	000.00	1,866.00
Totals	\$1,684.14	\$657.26	\$12,412.40

This cost analysis does not include room and board or housing deposit costs and is based on in-state residency. All new students residing on campus in Lavaca Hall, Red River Apartments or Village Oaks Apartments will be billed for the 1M525 Meal Plan option for his/her first two consecutive semesters on campus in addition to housing fees.

Tuition and Fees subject to change without notice to meet legislative, economic or institutional requirements.

