



# ELECTRONIC SYSTEMS TECHNOLOGY

Associate of Applied Science Degree

LINCOLN CAMPUS

[www.southeast.edu/GoEST](http://www.southeast.edu/GoEST)



*Get ready for a variety of career opportunities, including industrial and personal networking, robotics, automation systems, avionics, biomedical, communications, and many other commercial electronic systems, as well as non-commercial, personal systems. A degree in Electronic Systems Technology can open a variety of exciting, stable and lifelong career opportunities with great salaries and benefits.*

Classes are designed to teach 50 percent theory and 50 percent lab so students can develop the skills necessary to be successful technicians in the field of choice.

**Types of jobs available:**

- Audio Technician
- Avionics Technician
- Car Stereo Installer/Repairer
- Electronic Systems Designer
- Engineering Assistant
- FAA Electronic Technicians
- Field Service Technician
- Home Theater Installer/Repairer
- Industrial Automation Technician
- Network Administrator
- Network Technician
- PC Support Technician
- Radio/TV Broadcast Engineer
- Robotics Technician
- Security Systems Technician
- Studio Technician
- Technical Manager
- Telephone Technician
- Telemetry Technician
- Two-way Radio Installer/Repairer
- Video Technician



**Graduate Earnings**

Recent graduates report an average starting salary of \$36,088 per year plus benefits.

93 percent of recent graduates found work in their field of study.

*"My professional career is advancing rapidly. I thank SCC for providing the foundation that made this possible."*

*Adam Neuhaus, Software Engineering Test Lead  
EF Johnson Technologies, Lincoln, NE*

**For more information contact:**

Mike Aalberg, Program Chair  
402-437-2658, 800-642-4075 ext. 2658  
[maalberg@southeast.edu](mailto:maalberg@southeast.edu)

or the College Admissions Office  
Lincoln 402-437-2600, 800-642-4075 ext. 2600

Equal Opportunity/NonDiscrimination Policy - It is the policy of Southeast Community College to provide equal opportunity and nondiscrimination in all admission, attendance, and employment matters to all persons without regard to race, color, religion, sex, age, marital status, national origin, ethnicity, veteran status, sexual orientation, disability, or other factors prohibited by law or College policy. Inquiries concerning the application of Southeast Community College's policies on equal opportunity and nondiscrimination should be directed to the Vice President for Access/Equity/Diversity, SCC Area Office, 301 S. 68th Street Place, Lincoln, NE 68510, 402-323-3412, FAX 402-323-3420, or [jsoto@southeast.edu](mailto:jsoto@southeast.edu). This publication should not be considered a contract between SCC and any prospective student. SCC's Board of Governors reserves the right to make changes in this publication during the life of the publication and without notice. A0719 - EST (05/17)



## Core Electronic Systems Technology Courses

### First Quarter

ELEC 1100	Introduction to Electronic Engineering	4.5
ELEC 1129	Engineering Electronics I	7.5
GENN xxxx		4.5

### Second Quarter

ELEC 1219	Engineering Electronics II	7.5
ELEC 1227	Digital Circuits	4.5
MATH xxxx		4.5

### Third Quarter

ELEC 1317	Active Devices	7.5
ELEC 1482	Advanced Digital Circuits	4.5
GENN xxxx		4.5

### Fourth Quarter

ELEC 1422	Analog Circuits	7.5
ELEC 2530	Microprocessor Applications	4.5
GENN xxxx		4.5

### Fifth Quarter

ELEC 2863	Programmable Logic Controllers in Automation Sys.	4.5
ELEC 2760	Introduction to Networks	4.5
GENN xxxx		4.5

## Electronic Systems Technician Focus

### Sixth Quarter

ELEC 2519	Communications Systems	7.5
ELEC 2570	Audio Systems	4.5
ELEC xxxx	Technical Elective(s)	3

### Seventh Quarter

ELEC 2640	Advanced Communication Systems	4.5
ELEC 2750	Video Systems	6.5
ELEC xxxx	Technical Elective(s)	4.5

## Robotics and Automation Focus

### Sixth Quarter

ELEC 2761	Routing & Switching Essentials	4.5
ELEC 2853	Fluid Power and Robotics	3
ELEC xxxx	Technical Elective(s)	9

### Seventh Quarter

ELEC 2864	Adv. PLCs in Automation Systems	4.5
ELEC 2883	Robotics and Vision Systems	4.5
ELEC xxxx	Technical Elective(s)	4.5

## Cisco Networking/Security Focus

### Sixth Quarter

ELEC 2761	Routing & Switching Essentials	4.5
ELEC 2753	PC Operating Systems and Hardware	4.5
ELEC xxxx	Technical Elective(s)	4.5

### Seventh Quarter

ELEC 2860	Scaling Networks	4.5
ELEC 2900	CCNA Security	4.5
ELEC 2823	Network Operating Systems and Administration	7

Contact your program advisor to select general education courses which will meet your program's graduation requirements.

Classes are offered in three convenient time blocks to make planning your schedule easier!

**8 a.m. - Noon** begins each fall  
**10 a.m. - 3 p.m.** begins each spring  
**6 - 10 p.m.** begins each winter

Choose the time frame that works best for you!

## Military Transfer (Advanced Placement) in the Electronic Systems Technology program

The Electronic Systems Technician Military focus offers military students who have electronics background and training, to apply that training and reduce the courses necessary to complete the degree. Based upon the Military training transcript, the student and the program chair will select courses that will enhance technical expertise up to two-thirds of the technical courses can be transferred in for a technician focus or computer, automation and networking focus.

Cisco Networking/Security	Up to 71 credit hours transferred in and 38 required
Robotics and Automation	Up to 72 credit hours transferred in and 37.5 required
Electronic Systems Technician	Up to 72 credit hours transferred in and 38 required 22.5 credit hours required for general education

### Estimated Expenses

To determine overall costs, students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

Nebraska Resident tuition rate is \$65.50 per credit hour. Out-of-state tuition rate is \$79.50 per credit hour.

Student fee is \$2 per credit hour.

Graduation fee is \$25.

Housing is available at Beatrice and Milford campuses only. Quarterly tuition, books and fees are dependent upon classes taken.

### EST CORE COURSES

Quarters 1-5 (79.5 credits)	
Tuition/Fees	\$5,366
EST Books	925
Gen. Ed Books	620
Tools & Certification Exam Fee	540
<b>Total Estimate</b>	<b>\$7,451</b>

### Tools Fee includes:

- (1st quarter) ELEC-1100 or 1129
- Calculator
- USB drive
- Safety glasses
- Bread board
- Desoldering Braid (5 ft. roll, approx. 1/8" width)
- Set of small screwdrivers
- Wire stripper
- Tweezers
- Solder sucker
- Flush cutter
- IPC Exam
- Tool bag

(2nd Quarter) ELEC-1219 or 1227

- Bread board
- Anti-static wrist strap
- Mini-plier set
- Screwdriver set (standard)
- Pliers kit (3)

(4th Quarter) ELEC2530

- PICKit-3
- Fluke meter

### ELECTRONIC SYSTEMS TECHNICIAN FOCUS

Quarters 6-7 (30.5 credits)	
Tuition/Fees	\$2,059
EST Books	203
Tools & Certification Exam Fee	310
<b>Total Estimate</b>	<b>\$2,572</b>

### Tools Fee includes:

- (6th Quarter) ELEC-2519
- Speaker Kit
- Comm. Sys. kit (Radio)
- Torx head drivers
- Nut driver set (metric & standard)
- Allen (wrenches)
- (7th Quarter) ELEC-2570
- IS CET Exam

### ROBOTICS AND AUTOMATION FOCUS

Quarters 6-7 (30 credits)	
Tuition/Fees	\$2,025
EST Books	32
<b>Total Estimate</b>	<b>\$2,057</b>

### CISCO NETWORKING/SECURITY FOCUS

Quarters 6-7 (29.5 credits)	
Tuition/Fees	\$1,991
EST Books	290
<b>Total Estimate</b>	<b>\$2,281</b>