

Electronic Systems Technology



HEARTLAND
COMMUNITY COLLEGE

Associate in Applied Science Degree 66-67 Semester Hours

General Education Requirements

| | | |
|------------------------------------|------------------------------------|----------|
| COMM 101 | Intro to Oral Communication | 3 Hrs |
| ENGL 101 | Composition I | 3 |
| MATH 109 | College Algebra for Math & Science | 4 |
| Or | | |
| TMAT 103 | Technical Mathematics I | 4 |
| MATH 128 | Trigonometry | 3 |
| Or | | |
| TMAT 105 | Technical Mathematics II* | |
| Physical Science | | 4 |
| Social Science/Humanities Elective | | <u>3</u> |
| TOTAL | | 20-21 |

Technical Core Requirements

| | | |
|----------|---|----------|
| CSCI 101 | Intro to Computer Info Science | 4 |
| ELTC 102 | DC Electronics | 3 |
| ELTC 103 | AC Electronics | 3 |
| ELTC 206 | Digital Electronics & Microprocessors | 3 |
| ELTC 207 | Solid State Electronics Troubleshooting & Measurements | 3 |
| ELTC 220 | Data Communications | <u>3</u> |
| TOTAL | | 19 |

Technical Electives

Specialty Electives** (See Option areas below.) 27

Electronic Systems Option:

| | | |
|-------------|------------------------------------|----------|
| CAD 101 | Introduction to AutoCAD | 3 |
| ELTC 212 | Automation & Control Electronics | 3 |
| MAIN 201 | Electrical Wiring & Maintenance | 3 |
| Or | | |
| NETW 208 | Data and Cabling Systems | 3 |
| MAIN 222 | Industrial Controllers | 3 |
| NETW 160 | Introduction to Networking | 3 |
| TECH 114 | Introduction to Technical Graphics | 3 |
| Electives** | | <u>9</u> |
| TOTAL | | 27 |

Building Automation Option:

| | | |
|------------|----------------------------------|----------|
| CAD 101 | Introduction to AutoCAD | 3 |
| CNST 103 | Building Mechanics | 3 |
| ELTC 212 | Automation & Control Electronics | 3 |
| MAIN 202 | Fluid Power Systems | 3 |
| MAIN 222 | Industrial Controllers | 3 |
| NETW 160 | Introduction to Networking | 3 |
| REEC 110 | Green Building Technology | 3 |
| REEC 210 | Building Automation | 3 |
| Elective** | | <u>3</u> |
| TOTAL | | 27 |

Telecommunications Option:

| | | |
|----------|-----------------------------------|----------|
| NETW 121 | Networking Fundamentals | 3 Hrs |
| NETW 122 | Routing Protocols and Concepts | 3 |
| NETW 123 | Local Area Networks | 3 |
| NETW 124 | Wide Area Networks | 3 |
| NETW 150 | Workstation Operating Systems | 3 |
| NETW 151 | PC Hardware Maintenance & Repair | 3 |
| NETW 172 | Wireless Networking with Security | 3 |
| NETW 208 | Data and Cabling Systems | 3 |
| NETW 283 | Introduction to Voice Over IP | <u>3</u> |
| TOTAL | | 27 |

Note:

**Students are encouraged to pursue a certificate program in conjunction with the AAS degree. Other electives may be taken as approved by advisor or department.

Career Opportunities

Electronic Systems Technology is a growing field with employment opportunities continuing to grow, especially in niche markets like computers and communications. The electronics field is dynamic and is changing in many fields such as automotive, military, computers, hospital and medical equipment, industry, household appliances, building maintenance, security and surveillance, communications and customer service.

Upon completion of the program, students will be able to seek entry-level employment with manufacturers to produce products or maintain production lines, with computer service departments (within organizations), and with consumer electronics retail stores. Electronics technicians use engineers' plans to design and develop electronic equipment and machinery. They may work on radios, televisions, machine controls, computers, robots, radar or sonar. Some electronics technicians help in the development of electronic products; other technicians are responsible for repairing and servicing defective equipment.



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