

Electronic Information Technology

College of Lake County Grayslake · Vernon Hills · Waukegan · Online

ELECTRONIC INFORMATION TECHNOLOGY

(Associate in Applied Science) Plan 24ET
www.clcillinois.edu/credit/programs/eit.asp

This degree provides the theoretical background and hands-on training needed to work in the information technology field as a network or computer systems administrator or network technician.

To complete an A.A.S., students must meet General Requirements detailed in the current CLC catalog. Visit www.clcillinois.edu/catalog/ (select Career Programs).

Required General Education Coursework . 15

CMM 121	Fundamentals of Speech	3
EIT 110	Topics in Mathematics for Computer and Electronic Technicians	3
ENG 120	Technical Composition I	3
HUM 127	Critical Thinking	3
	Social Science Elective*	3

Required Network Engineering

Technology Coursework 30

EIT 111	Digital and Network Fundamentals 4
EIT 210	Data and Network Communication 4
EIT 211	Network Design and Analysis . . . 4
EIT 212	Applied Linux 3
EIT 230	Secure Wireless Networking 3
EIT 232	Linux Server Implementation . . . 3
EWE 220	Cooperative Work Experience I or ++ Technical Elective 3
EWE 270	Cooperative Work Experience II or ++ Technical Electives 3
	++ Technical Electives 3

Additional Required Coursework 20

CIT 120	Introduction to Computers 3
CIT 131	Windows Operating Systems . . . 3
CIT 151	LAN Administration 3
EET 170	DC Circuit Fundamentals 2
ELT 151	PC Hardware Fundamentals 3
ELT 152	PC Peripherals and Troubleshooting 3
#	Computer Language Elective 3

Total Hours for A.A.S. Degree 65

++ Select from CIT, CNA, ELC/ELT, EIT or other departmentally approved electives.

Select from the following electives: CIT 134, CIT 135, CIT136, CIT 137, CIT 141, CIT 170, CIT 171, MCS 124, MCS 140, MCS 141 or other departmentally approved electives.

LINUX SYSTEM ADMINISTRATION (Certificate) Plan 24ES

EIT 111	Digital and Network Fundamentals or CNA 111 CISCO Networking I	3-4
ELT 151	PC Hardware Fundamentals	3
EIT 212	Applied Linux	3
EIT 232	Linux Server Implementation	3
ELT 152	PC Peripherals and Troubleshooting	3

Total Hours for Certificate 15-16

FIBER OPTICS TECHNICIAN (Certificate) Plan 24EV

This certificate program is designed to provide students the hands-on experience and knowledge needed to prepare for industry certification in fiber optics technology and to find entry level employment in network technology and telecommunications.

Additionally, this certificate may be used to broaden the experiences of skilled network and systems administrators to include fiber optic analysis, installation and testing.

EIT 111	Digital and Network Fundamentals 4
EIT 116	Fiber Optic Fundamentals 3

Total Hours for Certificate 7

WIRELESS NETWORKING SECURITY (Certificate) Plan 24EU

This certificate provides the hands-on and theoretical experiences a network administrator needs to be able to design, test and maintain secure wireless and mixed media networks. This program also prepares students to pursue certifications in the field of wireless networking.

EIT 111	Digital and Network Fundamentals 4
EIT 210	Data and Network Communication 4
EIT 230	Secure Wireless Networking 3
EIT 250	Wireless Data Communications . . 3

Total Hours for Certificate 14

How to Register

Visit www.clcillinois.edu/credit/register/ for steps on how to register.

Typical Jobs *

Network and Computer Systems Administrators design, install and support an organization's local-area network (LAN), wide-area network (WAN), network segment, Internet or intranet system.

Systems Administrators are the information technology employees responsible for the efficient use of networks by organizations.

Salary Range *

Lake County area wage estimates: \$38,380 - \$97,690

Job Outlook *

The 11th fastest growing job, at 38% growth within 10 years.

Employers

Graduates of the program work for the following companies: Google, Motorola, Baxter, Abbott Labs, Advocate Healthcare, Uline, Six Flags, U.S. Navy, Hewlett.

Transfer Schools

Students in the program have transferred to the following schools:

- DePaul
- Illinois Institute of Technology
- University of Illinois – Chicago

* Career information is based on data from the Bureau of Labor Statistics for the Chicagoland area.



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Job Responsibilities

Network administrators and computer systems administrators

- Provide day-to-day onsite administrative support for software users in a variety of work environments, including professional offices, small businesses, government and large corporations.
- Maintain network hardware and software, analyze problems and monitor the network to ensure its availability to system users.
- Gather data to identify customer needs and use the information to identify, interpret and evaluate system and network requirements.
- Plan, coordinate and implement network security measures.

Systems administrators

- Ensure that the design of an organization's computer site allows all of the components, including computers, the network and software, to fit together and work properly.
- Monitor and adjust the performance of existing networks and continually survey the computer site to determine future network needs.
- Troubleshoot problems reported by users and by automated network monitoring systems.
- Recommend enhancements in the implementation of future servers and networks.

Entry, Mid and Senior Levels

The ability to get a job is based on skills, experience and certifications, rather than educational level. Although having a degree would be advantageous, it is the skill set that employers are looking for.

Entry Level

Entry-level network and computer systems administrators are involved in routine maintenance and monitoring of computer systems, typically working behind the scenes in an organization.

Mid and Senior Levels

After gaining experience, they often are able to advance into more senior-level positions, taking on more responsibilities. They may translate the needs of an organization into a set of technical requirements based on the available technology. Administrators may become software engineers, involved in the designing of the system or network.

Paths for Advancement

Completion of a Bachelor's Degree

This may be a computer-related degree or not (depending on whether your primary job function is working with technology or managing technical people). This path may continue on with the completion of a Master's degree.

Training Programs & Technical Certifications

Advanced workers choose an area to concentrate on, and completes more advanced training. The preparation students receive enables them to take certification exams, including: A+, Linux+, Network+, Linux Professional Institute exams 1 & 2, Red Hat Linux Certified Technician, Red Hat Linux Certified Engineer and Novell Networks Certified Linux Professional.

Why Choose this Field?

- Fast growing occupation, with double digit growth expected in the next several years.
- High salaries compared to other industries with similar educational requirements.
- Many paths of entry into the field.
- Opportunities for advancement, through training and certifications.
- Work is intellectually satisfying, with strong components of problem solving, utilizing the strengths of an individual.
- Some jobs (but not all) in this field are outsource-proof, as they require the on-site presence.
- Work with new and changing technologies.
- Opportunities to work with people, such as in management or training, and starting your own business.

Contact Info

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About the Faculty

The faculty is highly knowledgeable and credentialed. All faculty have master's degrees in engineering. The department chair has graduate level work in communication systems, wireless communications and networks.

The faculty to student ratio, roughly 15 to 1, allows for more personalized teaching and learning, and individual time on equipment for exploration and experimentation.

Student Experience

An email from Brady Cox, former EIT student and CLC grad, to Michelle Leonard, department chair and instructor:
"I had my first day at Google today. Thanks for making Linux fun, without you I wouldn't be there. So far the job is better than I could have imagined, and I'm guessing it gets better."