



Network Security & Electronics B.S. Degree

Network Security & Electronics at EKU

Students enrolled in the Network Security and Electronics (NET) Bachelor of Science (BS) degree program on a full-time basis can complete the degree in eight semesters. This 120-hour program prepares students to serve in a wide range of companies and other organizations where installation, monitoring, support, analysis, security and troubleshooting of Local Area Networks (LANs), Wide Area Networks (WANs) and Internet Systems is required. The ongoing expansion of networked computer systems and online commercial services assures exciting opportunities for skilled professionals in this area. The Network Security and Electronics program is accredited by the Association of Technology, Management and Applied Engineering (ATMAE).

Network Security & Electronics Careers

Graduates from EKU in the Network Security and Electronics program are prepared to begin work as technical professionals in the computer networking field. While completing the coursework, students may seek professional certifications in various computer electronic and networking areas. Many graduates of the program find careers as network managers or network specialists in fields including banking, healthcare, manufacturing and more. On-the-job experience is valued highly by employers. The cooperative education requirement in the program provides students with the opportunity to gain college credit for professional experience. With resumes that reflect technical and managerial classes, co-op experience and computer systems related certifications, graduates often find rewarding careers and fast advancement in the computer electronic networking field.

Department Facilities, Faculty and Student Organizations

The Department is located in the Ralph W. Whalin Technology Complex which includes approximately 100,000 square feet of classroom and laboratory space. Laboratories housed in the Whalin Complex include aviation, automation, electronics, computer aided drafting (CAD), graphic communications, quality assurance and metrology, materials and metallic processes, construction estimating, fluid power and computer applications. The facilities are located in the central portion of campus, close to the library, classroom buildings and dormitories. Faculty in the department have diversified academic and experience backgrounds. They are experienced, enthusiastic and devoted to providing students the skills necessary to succeed.

The primary organization for students in the Network Security and Electronics degree program is the Student Computer Information Technology Association (SITO). SITO is a student-led organization that holds lunch meetings many times per semester with presentations on current computing topics such as operating systems, motherboards, displays, gaming, memory, wireless computing, studying for certification and other topics identified by students or the faculty advisor.

For More Information

Department of Applied Engineering and Technology
307 Whalin Complex
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
859-622-3232
<http://technology.eku.edu>



The Association of Technology,
Management, and Applied Engineering



Suggested Curriculum Guide for Network Security and Electronics

Freshman (1st Semester) 16 hrs

BTO 100* Academic Orientation (1 hr)
EET 251* Electricity and Electronics
EET 252* Digital Electronics
TEC 161 Computer Applications in Technology
E-2 Select from **MAT 114** College Algebra **or higher**
E-1A ENG 101 English Comp I or **ENG 105** Honors English

Sophomore (1st Semester) 15 hrs

Select from **EET 253** Microprocessor Control Systems **or EET 351** Programmable Logic Controllers **or AEM 352** Automated Technology Devices
NET 354^ Microcomputer & Network Security
E-2 MAT 120 Trigonometry
E-1C Select from **CMS 100** Human Communication **or CMS 210** Public Speaking **or EES 250** Basic Social Intelligence Skills
Free Elective (3 hrs)

Junior (1st Semester) 15 hrs

NET 344 Advanced Network Switches & Routers
Select from **NET 395** Special Topics in NET **or NET 440** Fiber-Optics & Communications
AEM 202 Introduction to Quality
Higher CSC course **above CSC 160**
Free Elective (3 hrs), Recommend co-op

Senior (1st Semester) 15 hrs

NET 454 Wireless/WAN Security
AEM 407 Fundamentals of Project Management
E-5A History
E-6 Diversity of Perspectives & Experiences
Free Elective (3 hrs), Recommend Co-op
Apply for Graduation (0 hrs)

*These courses should be taken during the first semester of the program
 ^Some courses may have prerequisites.

Freshman (2nd Semester) 15 hrs

EET 257 Electronic Devices and Circuits
NET 302^ PC Troubleshooting & Construction
NET 303^ LANs & PC Communications
CSC 160 Intro to Programming
E-1B ENG 102 English Composition II

Sophomore (2nd Semester) 16-17 hrs

NET 343 Network Switches & Routers
E-4 Select from **PHY 101** Concepts of the Physical World **or higher**
E-5B ECO 230 Economics
E-3B Humanities or **3A/B** Integrated Arts and Humanities
STA 215 Intro to Statistical Reasoning or **STA 270** (4) Applied Statistics I
NET 349 Co-operative (Co-op) Education (1)

Junior (2nd Semester) 16 hrs

NET 403 Advanced LANs and PC Communications
AEM 310W Computer Communications in Industry
Upper Division Management Supporting Course^ from ACC, AEM, CCT, CIS, FIN, GBU, INS, MGT, MKT, or QMB (3 hrs)
E-3A Arts **or 3A/B** Integrated Arts and Humanities
E-4 CHE 101 Chemistry in Everyday Life
E-4 CHE 101L Introductory Chemistry Lab (1)
BTS 300 Professional Skills Seminar (0 credit)

Senior (2nd Semester) 12 hrs

NET 499 Senior Capstone
AEM 408 Human Resource Management
E-6 Diversity of Perspectives & Experiences
Upper Division Free Elective (3 hrs), Recommend Co-op
BTS 400 College to Careers Seminar (0 credit)
NET 467 Exit Exam Departmental (0 credit)

University Requirements

General Education 36 hrs
 Student Success Seminar (BTO 100; waived for transfers with 30+ hrs.) 1 hr
 Total Hours University Graduation Requirements 37 hrs

College Requirements:

BTS 300 (CR only, no hours) and BTS 400 (CR only, no hours)..... 40 hrs

Core Courses (Major Requirements) 40 hrs

EET 251, 252, (EET 253 or 351 or AEM 352), 257; NET 302, 303, 343, 344, 349(1), 354, (395 or 440), 403, 454, 499. Exit requirement NET 467 (0).

Supporting Course Requirements 30-36 hrs

AEM 202, 407, and 408; AEM 310 or 310W; CHE 101/101L or higher (^{GenEd}Element 4); CSC 160, and three hours of higher CSC courses; ECO 230 (^{GenEd}Element 5B); MAT 114 or higher; MAT 120 (^{GenEd}Element 2); PHY 101 or higher (^{GenEd}Element 4); STA 215 or 270; TEC 161, and three hours of ACC, AEM, CCT, CIS, FIN, GBU, MGT, MKT, QMB, or RMI electives as approved by major advisor.

Free Electives 7-13 hrs

(Up to 3 semester hours of Upper Division courses including Cooperative Education, may be needed for meeting the 42 hour requirement.)

Total Curriculum Requirements 120 hrs

+ Graduates must have an overall GPA of 2.25 in major requirements. Students must take a departmental exit examination before graduation. Students must take at least one computer systems, networking, security, electronics, or telecommunications technology certification or license approved by the advisor.