

CURRICULUM GUIDE

3+2 Cyber Systems Technology (Tech Systems Concentration), B.S. 3+2 CST (TS) and Technology Management (Cyber Systems Tech Security Concentration), M.S., TM (CSTS) 2023-2024

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The schedule below is an **EXAMPLE** of how you can arrange your class schedule. Please consult your advisor for specific changes that may need to be made.

	Fall Semester	Spring Semester
Freshman Year	SCO 100 1 ° MAT 112A <u>and</u> 112B (or higher, such as MAT 114 or 120) (fulfills Gen. Ed. 2) 3 (TEC 161 <u>or</u> INF 104) 3 † Concentration Elective 3 † Concentration Elective 3 Gen. Ed. 1A (ENG 101) 3 TOTAL 16	† Concentration Elective 3 † Concentration Elective 3 Free elective 3 Free elective 3 Gen. Ed 1B (ENG 102) 3 TOTAL 15
Sophomore Year	° ECO 120 (or higher) (fulfills Gen. Ed. 5B) 3 † Concentration Elective 3 † Concentration Elective 3 Gen. Ed. 1C (Oral Comm.) 3 Free elective 0-1 TOTAL 12-13	† Concentration Elective 3 † Concentration Elective 3 ° PHY 101 (or higher) (fulfills Gen. Ed. 4) 3 (STA 215 <u>or</u> 270) 3-4 Gen. Ed. 3B (Humanities) 3 TOTAL 15-16
Junior Year	AEM 202 3 EET 252 3 NET 302 3 NET 303 3 Gen. Ed. 3A (Arts) 3 TOTAL 15	AEM 310 3 NET 343 3 NET 354 3 NET 361 3 NET 403 3 TOTAL 15
Senior Year	AEM 804 3 (EET 351, AEM 352, EET 253, <u>or</u> NET 440) 3 NET 349 1 NSM 815 3 Gen. Ed. 5A (History) 3 Gen. Ed. 6 (Div. of per. and exp.) 3 TOTAL 16	AEM 408 3 NET 467 0 NET 499 3 NSM 845 3 Gen. Ed. 4 (Nat. Sci.) 3 Gen. Ed. 6 (Div. of per. and exp.) 3 <u>(Undergraduate Complete = 120 hrs. + Grad = 9 hrs.)</u> TOTAL 15
Senior +1 Year	AEM 801 3 NMS 895 3 TEC 860 3 TEC 830 3 TOTAL 12	(AEM 821 <u>or</u> 839) 3 MS Supporting Course Requirement 3 MS Supporting Course Requirement 3 (GRD 868b <u>or</u> GRD 867c) 0 TOTAL 9
TOTAL HOURS TO DEGREE COMPLETION		141

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division courses in your major.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300 level or above) courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100	Student Success Seminar (1)
CORE COURSE REQUIREMENTS (43)	
AEM 202	Introduction to Quality (3)
AEM 310	Technical Communication (3)
AEM 408	Human Resource Development (3)
AEM 804	Project Management (3)
EET 252	Digital Electronics (3)
NET 302	PC Troubleshooting and Construction (3)
NET 303	LANs and PC Communications (3)
NET 343	Network Switches and Routers (3)
NET 349	Applied Learning in NET (1)
NET 354	Microcomputer and Network Security (3)
NET 361	Cloud Technology Foundations (3)
NET 403	Advanced LANs and PC Communication (3)
NET 499	Senior Capstone (3) (spring only)
NSM 815	Foundations of Network Security (3)
NSM 845	Advanced Server Security (3)
PROGRAM ELECTIVES (6)	
Select THREE (3) HOURS from:	
AEM 352	Robotics and Automated Systems (3)
EET 253	Microprocessor Control Systems (3)
EET 351	Programmable Logic Controllers (3)
NET 440	Wired/Wireless Communications (3)
Select THREE (3) HOURS from:	
INF 104	Computer Literacy with Software Applications (3)
TEC 161	Computer Applications in Technology (3)
TECH SYSTEMS CONCENTRATION REQUIREMENTS (24)	
† TWENTY-FOUR (24) HOURS of course work in computer systems, electricity and electronics, and networking related technical electives as approved by major adviser. (This concentration is recommended for transfer students).	
SUPPORTING COURSE REQUIREMENTS (3-4)	
° ECO 120	Economic Reasoning and Issues (3)
° MAT 112A <u>and</u>	Algebra: Polynomials (1.5)
° MAT 112B	Algebra: Functions and Matrices (1.5)
° PHY 101	Conceptual Physics (3)
(STA 215 <u>or</u> STA 270)	Introduction to Statistical Reasoning (3)
	Applied Statistics (4)
EXIT REQUIREMENT (0)	
NET 467	Exit Exam for BS in NET (0)
FREE ELECTIVES (6-7)	
Co-operative education, NET 349, recommended as free electives or NET 395 (Special Topics in NET) taken with a unique topic.	
M.S. TECHNOLOGY MANAGEMENT (CYBERSYSTEMS TECH SECURITY CONCENTRATION) REQUIREMENTS (30)	
CORE COURSE REQUIREMENTS (15) (Three (3) credits from AEM 804 are counted in the undergraduate program and graduate program)	
AEM 801	Economics for Lean Operations (3)
AEM 804	Project Management (3)
TEC 830	Creative Problem Solving (3)
PLUS SIX (6) HOURS of synthesis experience:	
TEC 860 <u>and</u> (AEM 821 <u>or</u> AEM 839)	Research in Technology (3)
	Industrial Technology Project (3)
	Applied Learning in Tech Management (3)
CYBER SYSTEMS TECH SECURITY CONCENTRATION REQUIREMENTS (9) (Six (6) credits from NSM 815 and NSM 845 are counted in the undergraduate program and graduate program)	
NSM 815	Foundations of Network Security (3)
NSM 845	Advanced Server Security (3)
NSM 895	Special Topics in NSM: (3)
SUPPORTING COURSE REQUIREMENTS (6)	
Consult with advisor to choose appropriate courses.	
EXIT REQUIREMENT (0)	
(GRD 867c <u>or</u> GRD 868b)	MS Applied Engineering and Technology Management Written Comprehensive Exam
	MS Applied Engineering and Technology Management Oral Comprehensive Exam

° Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.