

CURRICULUM GUIDE
Engineering Technology Management (Manufacturing Concentration)
2022-2023

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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	AEM 390	3
	AEM 201	3	° CHE 101 <i>or</i> 111 (fulfills Gen. Ed. 4)	3
	AEM 195	3	CHE 101L <i>or</i> 111L	1
	° MAT 120 (or higher) (fulfills Gen. Ed. 2)	3	EET 251	3
	TEC 161	3	Gen. Ed 1B (ENG 102)	3
	Gen. Ed. 1A (ENG 101)	3	Gen. Ed. 1C (Comm.)	3
	TOTAL	16	TOTAL	16
Sophomore Year	° ECO 230 <i>or</i> ° 130 (fulfills Gen. Ed. 5B) <i>or</i> ACC 200	3	AEM 202	3
	° PHY 131 (fulfills Gen. Ed. 4)	5	AEM 301 (spring only)	3
	STA 215	3	‡ AEM Technical Elective	3
	Free Elective	3	MAT 211 (or higher)	3
			Gen. Ed. 5A (History)	3
	TOTAL	14	TOTAL	15
Junior Year	AEM 308	3	AEM 332	3
	AEM 310W	3	CON 420	3
	AEM 330	3	‡ AEM Technical Elective (upper division)	3
	AEM 349	1	Gen. Ed. 3B (Humanities)	3
	‡ AEM Technical Elective (upper division)	3	Free Elective (or Gen. Ed. 5B if ACC 200 taken)	3
	Gen. Ed. 3A (Arts)	3		
	TOTAL	16	TOTAL	15
Senior Year	AEM 352	3	AEM 408	3
	AEM 371	3	AEM 467	0
	AEM 407 (fall only)	3	AEM 499 (ACCT) (spring only)	3
	Free Elective	4	‡ AEM Technical Elective (upper division)	3
	Gen. Ed. 6 (Diversity)	3	Gen. Ed. 6 (Diversity)	3
TOTAL	16	TOTAL	12	
TOTAL HOURS TO DEGREE COMPLETION		120		

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100	Business and Technology Orientation (1)
CORE COURSE REQUIREMENTS (34)	
AEM 195	Computer Aided Drafting (3)
AEM 202	Introduction to Quality (3)
AEM 308	Methods of Lean Operations (3)
AEM 310W	Technical Communication (3) (writing intensive)
AEM 332	Process Control and Auditing (3)
AEM 349	Applied Learning in Industrial Technology (1)
AEM 407	Fundamentals of Project Management (3) (fall only)
AEM 408	Human Resources Development (3)
AEM 499	Senior Capstone Project (3) (spring only)
CON 420	Engineering Economy (3)
STA 215	Introduction to Statistical Reasoning (3)
TEC 161	Computer Applications in Technology (3)
MANUFACTURING CONCENTRATION REQUIREMENTS (33)	
AEM 201	Metallic Material Processes (3)
AEM 301	Non-Metallic Material Processes (3) (spring only)
AEM 330	Materials Testing and Metrology (3)
AEM 352	Robotics and Automated Systems (3)
AEM 371	Hydraulics and Pneumatics (3) (spring only)
AEM 390	3-D Parametric Solid Modeling (3)
EET 251	Electricity and Electronics (3)
‡ PLUS TWELVE (12) HOURS selected from the following technical electives (NINE (9) hours must be upper division):	
AEM 336	Reliability and Sampling (3)
AEM 382	Advanced Material Processing (3)
AEM 383	CAD/CAM Integration (3)
AEM 392	Computer Aided Machine Drawing (3) (fall only)
AEM 395	Special topics in AEM: _____ (2-3)
AEM 397	Advanced Machine Drawing (3)
AEM 506	Six Sigma Quality (3)
AEM 530 <i>or</i> STA 585	Design of Experiments (3)
CON 303	Statics and Strength of Materials (3)
EET 252	Digital Electronics (3)
EET 257	Electronic Devices and Circuits (3)
EET 351	Programmable Logic Controllers (3)
NET 303	LANs and PC Communications (3)
NET 440	Wired/Wireless Communications (3)
SUPPORTING COURSE REQUIREMENTS (6-9)	
° CHE 101 <i>and</i> CHE 101L <i>OR</i> ° CHE 111 <i>and</i> CHE 111L	Introductory Chemistry I (3) Introductory Chemistry I Lab (1) General Chemistry I (3) General Chemistry I Lab (1)
° ECO 120 <i>or</i> ° ECO 230 <i>or</i> ACC 200	Economic Reasoning and Issues (3) Principles of Microeconomics (3) Survey of Accounting (3)
° MAT 120	Trigonometry (3)
MAT 211	Applied Calculus (3)
PHY 131	College Physics (5)
Bracketed items must be taken concurrently.	
EXIT REQUIREMENT (0)	
AEM 467	Exit Exam for BS in AEM (0) (EXAM FEE REQUIRED)
FREE ELECTIVES (7-10)	

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

* **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. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Engineering Technology Management majors fulfill ACCT with AEM 499. (Credit hours are incorporated into program requirements.)