

**CURRICULUM GUIDE**

**Engineering Technology Management, B.S. (Technology) + Technology Management (Engineering Operations), M.S.**

**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	Course Number	Course Name
<b>Freshman Year</b>	Approved Technical Elective	3	Approved Technical Elective	3
	Approved Technical Elective	3	Approved Technical Elective	3
	Approved Technical Elective	3	Approved Technical Elective	3
	Approved Technical Elective	3	Approved Technical Elective	3
	Approved Technical Elective	3	Approved Technical Elective	3
	Free Elective	3	Free Elective	3
	<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	<b>18</b>
<b>Sophomore Year</b>	AEM 195	3	AEM 202	3
	<sup>6</sup> ECO 120 <u>or</u> <sup>6</sup> ECO 230 (fulfills Gen. Ed. 5B)	3	MAT 211 (or higher)	3
	<sup>6</sup> MAT 120 (or higher) (fulfills Gen. Ed. 2)	3	Gen. Ed. 1B (ENG 102)	3
	STA 215 <u>or</u> 270	3-4	Gen. Ed. 1C (Oral Comm.)	3
	TEC 161	3	Gen. Ed. 3B (Humanities)	3
	Gen. Ed. 1A (ENG 101)	3	Free Elective	3
	<b>TOTAL</b>	<b>18-19</b>	<b>TOTAL</b>	<b>18</b>
<b>Junior Year</b>	AEM 308 (fall only)	3	AEM 332 (spring only)	3
	AEM 310W	3	AEM 408	3
	AEM 349	1	AEM 467	0
	AEM 804 (also fulfills MS requirement)	3	AEM 499 (ACCT) (spring only)	3
	<sup>6</sup> PHY 131 (fulfills Gen. Ed. 4)	5	AEM 801 (also fulfills MS requirement)	3
	Free Elective	1-2	Gen. Ed. 6 (Diversity)	3
<b>TOTAL</b>	<b>16-17</b>	<b>TOTAL</b>	<b>15</b>	
<b>Senior Year</b>	AEM 706 (fall only) (also fulfills MS requirement)	3	AEM 802	3
	<sup>6</sup> CHE 101/101L <u>or</u> 111/111L (fulfills Gen. Ed 4)	4	TEC 860 <u>or</u> AEM 839	3
	Gen. Ed. 3A (Arts)	3	AEM Supporting Course Elective	3
	Gen. Ed. 5A (History)	3		
	Gen. Ed. 6 (Diversity)	3		
<b>(Undergraduate Complete = 120 hrs)</b>				
<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>9</b>	
<b>Graduate SUMMER SEMESTER</b>				
	TEC 830	3		
	AEM Supporting Course Elective	3		
	<b>TOTAL</b>	<b>6</b>		
<b>Graduate Fall</b>	AEM 805	3		
	AEM 821 <u>or</u> AEM 839	3		
	GRD 867C <u>or</u> GRD 868b	0		
	<b>TOTAL</b>	<b>6</b>		
		<b>TOTAL HOURS TO DEGREE COMPLETION</b>	<b>141</b>	

Course Number	Course Name
<b>GENERAL EDUCATION &amp; UNIVERSITY REQUIREMENTS (36-37)</b>	
SCO 100	Student Success Seminar (1) <i>(not required of transfer students)</i>
<b>CORE COURSE REQUIREMENTS (37-38)</b>	
AEM 195	Computer Aided Drafting (3)
AEM 202	Introduction to Quality (3)
AEM 308	Methods of Lean Operations (3) (fall only)
AEM 310W	Technical Communication (3)
AEM 332	Process Control and Auditing (3)
AEM 349	Applied Learning I Industrial Technology (1)
AEM 408	Human Resource Development (3)
AEM 499	Senior Capstone Project (3) (spring only)
AEM 706	Six Sigma Quality (3)
AEM 801	Economics for Lean Operations (3)
AEM 804	Project Management (3)
STA 215 <u>or</u> STA 270	Introduction to Statistical Reasoning (3)
TEC 161	Applied Statistics (4)
TEC 161	Computer Applications in Technology (3)
<b>TECHNOLOGY CONCENTRATION REQUIREMENTS (30)</b>	
THIRTY (30) HOURS of approved technical electives. (Transfer students with an associate degree in an industrial related field should consult with an advisor to ensure that the upper division requirement is met.)	
<b>TECHNOLOGY SUPPORTING COURSE REQUIREMENTS (6-9)</b>	
<sup>4</sup> <sup>6</sup> CHE 101 <u>AND</u> <sup>6</sup> CHE 101L <u>or</u> <sup>6</sup> CHE 111 <u>AND</u> <sup>6</sup> CHE 111L	Introductory Chemistry (3) Introductory Chemistry Lab I (1) General Chemistry I (3) General Chemistry Lab I (1)
<sup>6</sup> ECO 120 <u>or</u> <sup>6</sup> ECO 230 <u>or</u> * ACC 200	Economic Reasoning and Issues (3) Fundamentals of Microeconomics (3) Survey of Accounting (3)
<sup>6</sup> MAT 120 <u>AND</u> *MATH 211 <u>or</u> <sup>6</sup> hours of higher	Trigonometry (3) Applied Calculus (3)
<sup>6</sup> PHY 131	College Physics I (5)
<i>Bracketed items must be taken concurrently</i>	
<b>FREE ELECTIVES (7-11)</b>	
<b>EXIT EXAM REQUIREMENT (0 – Credit Only)</b>	
AEM 467	Comprehensive Exam for BS in ETM (credit only)
<b>M.S. TECHNOLOGY MANAGEMENT REQUIREMENTS</b>	
<b>CORE COURSE REQUIREMENTS (15) (30 total; Nine (9) credits from AEM 706, AEM 801, and AEM 804 are counted in the undergraduate program)</b>	
AEM 801	Economics for Lean Operations (3)
AEM 804	Project Management (3)
TEC 830	Creative Problem Solving (3)
<b>PLUS SIX (6) HOURS Selected from (Synthesis Experience):</b>	
TEC 860 <u>or</u> AEM 821 <u>AND</u> AEM 821 <u>or</u> AEM 839	Research in Technology (3) Industrial Technology Project (3) Industrial Technology Project (3) Applied Learning in Tech Management (3)
<b>ENGINEERING OPERATIONS CONCENTRATION REQUIREMENTS (9)</b>	
AEM 706	Six Sigma Quality (3)
AEM 802	Productivity Assessment and Analysis (3)
AEM 805	Industrial Operations Research (3)
<b>SUPPORTING COURSE REQUIREMENTS</b>	
SIX (6) HOURS of additional course work to fulfill requirements.	
<b>EXIT REQUIREMENT</b>	
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

<sup>6</sup> Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.  
\* Denotes that a prerequisite is required to be admitted into the course.

\* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division AEM, EET, NET, and TEC courses.  
A preparatory course in mathematics may be required before admittance into MAT 120.  
Prerequisites are marked for supporting courses only.

**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 will fulfill ACCT with: AEM 499 (Credit hours are incorporated into program requirements.)