

ENGINEERING TECHNOLOGY MANAGEMENT, BACHELOR OF SCIENCE WITH A CONCENTRATION IN MANUFACTURING (B.S.)

Graduates of the Engineering Technology Management program are prepared for many professional roles in technology-related businesses. These roles offer many opportunities to pursue exciting, challenging and rewarding careers that require technical knowledge and managerial skills. The B.S.-Engineering Technology Management program prepares individuals for entry-level positions that include manufacturing engineer, production engineer, industrial supervisor, industrial engineer, industrial technician, and quality engineer.

Engineering Technology Management graduates will be able to relate terminology, techniques and methodology to technical managerial concepts; demonstrate the ability to formulate and apply technical problem-solving and managerial concepts; and apply the concepts of mathematics and the physical sciences to solve technical problems. The B.S.-Engineering Technology Management program is accredited by the Association of Technology, Management, and Applied Engineering (ATMAE).

Program Requirements

Graduates must have an overall GPA at or above 2.00, and 2.25 in the major with no major grade below a "C". Transfer students will be treated on an individual basis.

CIP Code: 15.1501

Major

Code	Title	Hours
University Graduation Requirements		
General Education (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/)		36
<i>Foundations of Learning</i>		
GSD 101	Foundations of Learning	3
Upper division courses (42 hours distributed throughout Major/Supporting/Gen Ed/Free Electives categories)		
Major Requirements		
<i>Core Courses</i>		
AEM 195	Computer Aided Drafting	3
AEM 202	Introduction to Quality	3
AEM 308	Methods of Lean Operations	3
AEM 310	Technical Communication	3
AEM 332	Process Control and Auditing	3
AEM 349	Applied Learning in Industrial Technology	1
AEM 407	Fundamentals of Project Management	3
AEM 408	Human Resource Development	3
AEM 499	Senior Capstone Project	3
CON 420	Engineering Economy	3
STA 215	Introduction to Statistical Reasoning	3-4

or STA 270	Applied Statistics	
TEC 161	Computer Applications in Technology	3
Concentrations		
Students must select one of the following Concentrations:		
Manufacturing Technology		33
<i>Supporting Course Requirements</i>		
Choose from one of the following:		
CHE 101 & 101L	Introductory Chemistry and Introductory Chemistry Lab (Element 4) ^G	
CHE 111 & 111L	General Chemistry and General Chemistry Lab I (Element 4) ^G	
Choose from 0-3 hours of the following:		0-3
ECO 120	Economic Reasoning and Issues (Element 5B) ^G	
ECO 230	Fundamentals of Microeconomics (Element 5B) ^G	
ACC 200	Survey of Accounting	
Choose from 3-6 hours of the following:		3-6
MAT 120	Trigonometry (Element 2) ^G	
MAT 211	Applied Calculus	
Or choose from six hours of higher-level MAT courses		
PHY 131	College Physics I (Element 4) ^G	
<i>Exit Requirements</i>		
Students must take an AEM assessment examination before graduation (GR only, no hours). An exam fee is required.		
AEM 467	Comprehensive Exam for BS in ETM	0
<i>Free Electives</i>		
Choose from 6-10 hours of free electives		6-10
Total Hours		120

G Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above. A maximum of 6 hours can apply toward Element 4.

Concentration

Code	Title	Hours
Concentration Courses		
AEM 201	Metallic Material Processes	3
AEM 301	Non-Metallic Material Processes	3
AEM 330	Material Testing and Metrology	3
AEM 352	Robotics and Automated Systems	3
AEM 371	Hydraulics and Pneumatics	3
AEM 390	3-D Parametric Solid Modeling	3
EET 251	Electricity and Electronics	3
<i>Technical Electives</i>		
Choose from 12 hours of the following. Note that 9 hours must be upper division: ¹		12
AEM 336	Reliability and Sampling	
AEM 382	Advanced Material Processing	
AEM 383	CAD/CAM Integration	
AEM 392	Computer Aided Machine Drawing	
AEM 397	Advanced Machine Drawing	
AEM 506	Six Sigma Quality	
AEM 530	Design of Experiments	

or STA 585 Experimental Design

CON 303	Statics and Strength of Materials
EET 252	Digital Electronics
EET 257	Electronic Devices and Circuits
EET 351	Programmable Logic Controllers
NET 303	LANs & PC Communications
NET 440	Wired/Wireless Communications

Total Hours **33**

¹ Transfer students with an associate degree in a technical related field may not need to take these 12 hours of electives if upper division requirement can be completed.