

# ENGINEERING TECHNOLOGY MANAGEMENT, BACHELOR OF SCIENCE (B.S.) AND TECHNOLOGY MANAGEMENT MASTER OF SCIENCE (M.S.) [MANUFACTURING CONCENTRATION] ACCELERATED 3+2 DUAL DEGREE PROGRAM

Students accepted to the 3+2 Accelerated Dual Degree Program are able to complete their B.S. degree and M.S. degree within five calendar years because of the accelerated curriculum and because nine semester hours of graduate coursework will apply to both the undergraduate B.S. degree and the graduate M.S. degree. Only undergraduate students of proven academic ability will be considered for the program. Students should be aware that, in order to maintain their progress in the accelerated 3+2 program, careful coordination with their advisor is required. Depending upon undergraduate progress at the time of 3+2 admission, some summer-school classes may be needed.

## Admission Requirements

Students interested in this option must satisfy all of the following conditions:

1. Junior or Senior standing
2. Overall grade point average (GPA) of at least 3.0 at the time of admission to the 3+2 program
3. Approval from department and Graduate School (see the form at <http://gradschool.eku.edu/graduate-school-forms> (<http://gradschool.eku.edu/graduate-school-forms/>))
4. Must maintain an overall undergraduate and graduate grade point average (GPA) of at least 3.0 to continue in the 3+2 program.

## Program Requirements

CIP Code: 15.1501

### Summary Checklist for General Education

Code	Title	Hours
<b>Element 1</b>		
A:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
B:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
C:	Oral Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
<b>Element 2</b>		

Quantitative Reasoning ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/</a> )	3
<b>Element 3</b>	
A: Arts ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
B: Humanities ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
<b>Element 4</b>	
Natural Sciences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/</a> )	6
<b>Element 5</b>	
A: Historical Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
B: Social Behavioral Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
<b>Element 6</b>	
Diversity of Perspectives Experiences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/</a> )	6
<b>Total Hours</b>	<b>36</b>

Students are expected to complete Elements 1 and 2 within their first 60 hours of college credit.

## Major

Code	Title	Hours
<b>University Graduation Requirements</b>		
General Education		36
<i>Student Success Seminar</i>		
SCO 100	Student Success Seminar (waived for transfers with 30+ hours)	1
Upper division courses (42 hours distributed throughout Major/Supporting/Gen Ed/Free Electives categories)		
<b>Major Requirements</b>		
<i>Core Courses</i>		
AEM 195	Computer Aided Drafting	3
AEM 202	Introduction to Quality	3
AEM 308	Methods of Lean Operations	3
AEM 310W	Technical Communication	3
AEM 332	Process Control and Auditing	3
AEM 349	Applied Learning in Industrial Technology	1
AEM 408	Human Resource Development	3
AEM 499	Senior Capstone Project	3
AEM 706	Six Sigma Quality	3
AEM 801	Economics for Lean Operations	3
AEM 804	Project Management	3
STA 215	Introduction to Statistical Reasoning	3-4
	or STA 270 Applied Statistics	
TEC 161	Computer Applications in Technology	3
<b>Concentrations</b>		
Students must select one of the following Concentrations:		30
Manufacturing		

Technology	NET 303	LANs & PC Communications	
<i>Supporting Course Requirements</i>	NET 440	Wired/Wireless Communications	
Choose from one of the following:	<b>Total Hours</b>		<b>30</b>
CHE 101 & 101L		Introductory Chemistry and Introductory Chemistry Lab (Element 4) <sup>G</sup>	
CHE 111 & 111L		General Chemistry and General Chemistry Lab I (Element 4) <sup>G</sup>	
Choose from 0-3 hours of the following:			0-3
ECO 120		Economic Reasoning and Issues (Element 5B) <sup>G</sup>	
ECO 230		Fundamentals of Microeconomics (Element 5B) <sup>G</sup>	
ACC 200		Survey of Accounting	
Choose from 3-6 hours of the following:			3-6
MAT 120		Trigonometry (Element 2) <sup>G</sup>	
MAT 211		Applied Calculus	
MAT 261			
Or choose six hours of higher-level MAT courses			
PHY 131		College Physics I (Element 4) <sup>G</sup>	
<i>Exit Requirements</i>			
Students must take an AEM assessment examination before graduation (CR only, no hours). An exam fee is required.			
AEM 467		Comprehensive Exam for BS in ETM	0
<i>Free Electives</i>			6-10
<b>Total Hours</b>			<b>120</b>

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

### Concentration

Code	Title	Hours
<b>Concentration Courses</b>		
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 nine hours of the following: (six hours must be upper division)		9
AEM 336	Reliability and Sampling	
AEM 382	Advanced Material Processing	
AEM 383	CAD/CAM Integration	
AEM 392	Computer Aided Machine Drawing	
AEM 395	Special topics in AEM:___	
AEM 397	Advanced Machine Drawing	
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	