

TRANSFER PATHWAY GUIDE

2022-2023

Associate of Applied Science in Mechanical Engineering Technology at
Sinclair College to a Bachelor of Science in Mechanical and Manufacturing
Engineering Technology at Northern Kentucky University

Overview

Completion of the following curriculum will satisfy the requirements for the Associate of Applied Science (AAS) in Mechanical Engineering Technology degree at Sinclair College and leads to the Bachelor of Science (BS) in Mechanical and Manufacturing Engineering Technology degree at Northern Kentucky University (NKU).

Degree Requirements for Sinclair College

To earn a degree at Sinclair College, a student must complete a minimum of 60 credit hours, attain a minimum cumulative GPA of 2.0, and earn a minimum of 20 credit hours at Sinclair College.

Admission Requirements for NKU

Students completing an associate degree with a cumulative GPA of 2.0 or higher will be accepted into NKU.

The accredited Bachelor of Science in mechanical and manufacturing engineering technology focuses on the design and development of parts, processes, and systems. Under this program graduates will acquire knowledge, problem-solving ability, and hands-on skills to enter careers in the design, installation, manufacturing, testing, evaluation, technical sales, or maintenance of mechanical systems. In addition, graduates will have strengths in the analysis, applied design, development, implementation, or oversight of more advanced mechanical systems and processes.

This bachelor's degree program is designed to provide students with the knowledge and skills needed to succeed as engineers in today's industry. Students are required to co-op in industry starting with their second year, which often continues and leads to full-time employment. Together with the study of engineering principles, design is the cornerstone of the mechanical and manufacturing engineering technology degree program.

The MMET program is accredited by the Engineering Technology Accreditation Commission of ABET (<http://www.abet.org>).

Tuition and Scholarships

For information on tuition and scholarships, please visit <https://nku.edu/admissions/adult/online.html>

NKU Contact

For more information, students should contact Joel W. Vanhooose, Transfer Pathway Coordinator, at vanhooosej2@nku.edu.

Degree Requirements for NKU

To earn a bachelor's degree at NKU, students must complete a minimum of 120 credit hours with at least 45 credit hours numbered 300 and above. In addition, at least 25% of the credit hours required for the degree and the last 30 credit hours must be completed at NKU. Students must have an overall GPA of 2.0 and meet all prerequisites for courses and requirements for the major.

**SINCLAIR COLLEGE AAS IN MECHANICAL ENGINEERING TECHNOLOGY TO
NKU BS IN MECHANICAL AND MANUFACTURING ENGINEERING TECHNOLOGY CHECKLIST**

Sinclair College

Category 1: Sinclair Requirements for the AAS in Mechanical Engineering Technology

Sinclair Course	Course or Category	Credits	NKU Course	Completed
CAM 1109	Fundamentals of Tooling & Machining	3	EGT 265	
COM 2211	Effective Public Speaking	3	CMST 101	
ENG 1101	English Composition I	3	ENG 101	
MAT 1470 and MAT 1570 or MAT 1580	College Algebra and Analytic Geometry & Trigonometry or Precalculus	5-6	(MAT 102 or MAT 103) + MAT 100T + MAT 119 or MAT 119	
MET 1111	Preparatory Math for Engineering Technology	3	MAT 100T	
MET 1161	Software Tools for Engineering Technology	1	EGT 100T	
MET 1231	Introduction to Engineering Design Using 3D CAD	4	EGT 310	
MET 1371	CAD Concepts using AutoCAD (MET Elective)	3	EGT 212	
MET 2101	Thermodynamics	3	EGT 450	
MET 2151	Material Science	4	EGT 261	
MET 2201	Statics	3	MET 2201 + MET 2251 = EGT 300 + EGT 300T	
MET 2251	Strength of Materials	3	MET 2201 + MET 2251 = EGT 300 + EGT 300T	
MET 2281	Engineering Technology Professional Practice	3		
MET 2301	Fluid Mechanics	3	EGT 361	
MET 2351	Dynamics	3	EGT 340	
MET 2401	Machine Design	3	EGT 480	
MET 2780	Mechanical Engineering Technology Capstone	3	EGT 200T	
PHY 1141	College Physics I	4	PHY 211	
SOC 1101	Introduction to Sociology	3	SOC 100	
	Total Associate Degree Hours	60-61		

TBS XXX means to be selected by Sinclair College student.

TBD XXX means to be determined by NKU based on course selected at Sinclair College.

A grade of A or B in MAT 1470 equates to MAT 103 + MAT 100T. Grade of C or D in MAT 1470 equates to MAT 102 + MAT 100T.

Northern Kentucky University

Category 2: NKU Additional General Education Requirements

NKU Course	Course	Credits	Sinclair Course	Taken at Sinclair
TBS XXX	Cultural Pluralism	3		
TBS XXX	Individual & Society	3		
TBS XXX	Culture & Creativity	6		
TBS XXX	Global Viewpoints	3		
Subtotal General Education Courses		15		

Category 3: NKU Major Requirements for the BS in Mechanical and Manufacturing Engineering Technology

NKU Course	Course	Credits	Sinclair Course	Taken at Sinclair
CHE 130/130L	Chemistry: An Engineering Approach	4		
MAT 119	Precalculus Mathematics	3	MAT 1570 MAT 1580	x
MAT 129	Calculus I	4	MAT 2270	
PHY 211	General Physics with Laboratory I	4	PHY 1141	x
PHY 213	General Physics with Laboratory II	4	PHY 1142	
SOC 100	Introduction to Sociology	3	SOC 1101	x
STA 205	Statistical Methods	3	MAT 1450	
EGT 116	Introduction to Manufacturing	3		
EGT 162	Industrial Electricity	3		
EGT 211	Quality Control	3		
EGT 212	Computer-Aided Drafting and Design	3	MET 1371	x
EGT 260	Industrial Standards, Safety, and Codes	3		
EGT 261	Engineering Materials	3	MET 2151	x
EGT 265	Manufacturing Processes and Metrology	3	CAM 1109	x
EGT 267	Programming for Engineering Applications	3	EGR 2261	
EGT 291W	Writing in Engineering Technology	3		
EGT 300	Statics and Strength of Materials	3	MET 2201 + MET 2251	x
EGT 301	Cooperative Education in Engineering Technology	3		
EGT 310	Project Management and Problem Solving	3	MET 1231	x
EGT 320	Robotic Systems and Material Handling	3		
EGT 340	Applied Dynamics	3	MET 2351	x
EGT 361	Fluid Power	3	MET 2301	x

NKU Course	Course	Credits	Sinclair Course	Taken at Sinclair
EGT 365	CNC & Manufacturing Process Planning	3		
EGT 386	Electro-Mechanical Instrumentation & Control	3	EET 2281 + EET 2282	
EGT 405	Metrology and Geometric Tolerancing	3		
EGT 416	Capstone I	1		
EGT 417	Capstone II	3		
EGT 450	Thermodynamics and Heat Transfer	3	MET 2101	x
EGT 480	Machine Design	3	MET 2401	x
Select 3: EGT 280 EGT 318 EGT 321 EGT 362 EGT 411 EGT 412 EGT 423 EGT 462 EGT 465	Select three courses from the following: Introduction to Microtechnology Introduction to Nanotechnology Productivity Management, Scheduling, and Planning Tool Design and Computer Aided Manufacturing Quality Assurance and Auditing Advanced CADD Planning and Design of Industrial Facilities Finite Element Modeling Automated Manufacturing Systems	9		
	Total NKU Major Credit Hours	98		
	Less Major Credit Hours from Sinclair	37		
	Subtotal Major Credit Hours at NKU	61		
	Total Baccalaureate Degree Credit Hours	136-137		

Updated April 2022