



TWO DEGREES, ONE PATH

TRANSFER PATHWAY GUIDE 2023-20234

Associate of Science in Pre-Engineering To Bachelor of Science in
Mechanical and Manufacturing Engineering Technology

Overview

Completion of the following curriculum will satisfy the requirements for the Associate of Science (AS) in Pre-Engineering (PENG) degree at Cincinnati State (CState) and leads to the Bachelor of Science (BS) in Mechanical and Manufacturing Engineering Technology degree at Northern Kentucky University (NKU).

Applying to the CState2NKU Program

Students can apply to participate in the pathway program by completing the online application on the NKU transfer webpage. Students must be enrolled in at least six credit hours at Cincinnati State, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Cincinnati State.

Degree Requirements for Cincinnati State

1) Completion of minimum 62 credit hours, 36 of which from approved Ohio Transfer 36 courses, 2) minimum cumulative GPA 2.0, 3) completion of an FYE course as part of the first 12 credit hours taken at Cincinnati State, and 4) completion of Cooperative Education.

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>).

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 requirements for the major.

Advising Note

Students in the CState2NKU program should work closely with their advisors when choosing courses. This document serves as a guide but does not replace academic advising. When choosing Cincinnati State courses, student may also consult the Associate of Arts advising brochure or the catalog for A and B list courses in Arts and Humanities or Social and Behavioral Sciences.

**CINCINNATI STATE AS IN PRE-ENGINEERING TO NKU BS IN MECHANICAL AND
MANUFACTURING ENGINEERING TECHNOLOGY CHECKLIST**

Cincinnati State

Category 1: Ohio Transfer 36 Requirements

CState Course	Course or Category	Credits	NKU Course	Completed
ENG 101	English Composition I	3	ENG 101	
ENG 10X	English Composition 2 Elective	3	ENG 102	
COMM 110	Public Speaking	3	CMST 101	
TBS XXX	Arts/Humanities List A Elective	3	TBD XXX	
PHI 110	Ethics	3	PHI 200	
SOC 105	Introduction to Sociology	3	SOC 100	
HST XXX	History Elective	3	TBD XXX	
MAT 251	Calculus I	5	MAT 129 + MAT 100T	
CHE 121 and CHE 131	General Chemistry I and General Chemistry I Lab	5	CHE 120/120L	
	Subtotal General Education Core	31		

Note: PHI 110 satisfies the MMET requirement for an ethics course.

TBS XXX means to be selected by Cincinnati State student

TBD XXX means to be determined by NKU based on course selected at Cincinnati State

Category 2: CState Degree Requirements for the AS and NKU Recommendations

CState Course	Course or Category	Credits	NKU Course	Completed
FYE 1XX	First Year Experience Elective	1	UNV 100T	
MAT 252	Calculus 2	5	MAT 229	
MAT 253	Calculus 3	5	MAT 329	
ENGR 111	Introduction to Engineering 1	3	EGT 110	
ENGR 112	Introduction to Engineering 2	3	EGT 100T	
MET 111	Manufacturing Processes 1	3	EGT 265	
MET 131	MET Computer Aided Drafting I	3	EGT 212	
PHY 201	Physics 1: Calculus-Based	5	PHY 220	
PHY 202	Physics 2: Calculus-Based	5	PHY 224	
Choose 1: CET 291 MET 291 EET 291 EMET 291	Choose one Cooperative Education Cooperative Ed: Civil Engineering Technology Cooperative Ed: Mechanical Engineering Technology Cooperative Ed: Electronics Engineering Technology Cooperative Ed: Electro-Mechanical Engineering Technology	2	CEP 300	
	Subtotal Additional Program Credit Hours	35		
	Total Associate Degree Credit Hours	66		

Northern Kentucky University

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

NKU Course	Course	Credits	CState Course	Taken at CState
CHE 130/130L	Chemistry: An Engineering Approach	4	Waived by CHE 121 and CHE 131	x (satisfied by CHE 120/120L)
MAT 119	Precalculus Mathematics	3	MAT 125 & MAT 126	x (satisfied by MAT 251/252)
MAT 129	Calculus I	4	MAT 251	x
PHY 211	General Physics with Laboratory I	4	PHY 151	x (satisfied by PHY 220)
PHY 213	General Physics with Laboratory II	4	PHY 152	x (satisfied by PHY 224)
SOC 100	Introduction to Sociology	3	SOC 105	x
STA 205	Statistical Methods	3	MAT 131 + MAT 132	
EGT 116	Introduction to Manufacturing	3		
EGT 162	Industrial Electricity	3		
EGT 211	Quality Control	3	MET 230	
EGT 212	Computer-Aided Drafting and Design	3	MET 131	x
EGT 260	Industrial Standards, Safety, and Codes	3		
EGT 261	Engineering Materials	3	MET 140	
EGT 265	Manufacturing Processes and Metrology	3	MET 111	x
EGT 267	Programming for Engineering Applications	3	CIT 130	
EGT 300	Statics and Strength of Materials	3	MET 150	
EGT 301	Cooperative Education in Engineering Technology	3	MET 291 and MET 292	
EGT 310	Project Management and Problem Solving	3		
EGT 320	Robotic Systems and Material Handling	3		
EGT 340	Applied Dynamics	3		
EGT 361	Fluid Power	3	MET 240	
EGT 365	CNC & Manufacturing Process Planning	3	MET 112 + MET 113 = EGT 365 + EGT 300T	

NKU Course	Course	Credits	CState Course	Taken at CState
EGT 386	Electro-Mechanical Instrumentation & Control	3		
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 260	
EGT 480	Machine Design	3	MET 250 + MET 270 = EGT 480 + EGT 400T	
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		
	Subtotal Major Credit Hours at NKU	67		
	Subtotal Major Credit Hours at CState	28		
	Total Major Credit Hours	95		
	Total Baccalaureate Degree Credit Hours	133		

MET 291 and MET 292 can be used to satisfy EGT 301 with permission of the advisor.

Updated April 2023