TRANSFER PATHWAY GUIDE
2023-2024

Associate in Science to
Bachelor of Science in Mechatronics Engineering Technology

Overview
Completion of the following curriculum will satisfy the requirements for the Associate in Science (AS) degree at a Gateway Community and Technical College (GCTC) and leads to the Bachelor of Science (BS) in Mechatronics Engineering Technology degree at Northern Kentucky University (NKU).

Applying to the Gateway2NKU 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 Gateway CTC, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at Gateway CTC.

Degree Requirements for GCTC
1) Completion of minimum 60 credit hours, 2) minimum cumulative GPA 2.0, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural competence course, 5) demonstration of digital literacy, and 6) college success requirement.

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

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. A minor is not required for this major.

General Transfer Information

Students must complete the online application to NKU. There is no application fee for students who are transferring from GCTC.

KCTCS Scholars Award: Students who are KY residents transferring directly from a KCTCS institution with at least 36 hours from that institution and minimum GPA of 3.0, were never enrolled as a degree-seeking student at NKU, and will be enrolled in at least 12 credit hours both fall and spring semester are eligible for a limited number of $2,500 annual scholarships ($1,250 per fall and spring). Students must gain admission to NKU by June 15 for fall and November 1 for spring to be eligible for a possible scholarship. Online accelerated programs are not eligible for the KCTCS Scholars Award.

GCTC AS TO NKU BS IN MECHATRONICS ENGINEERING TECHOLOGY CHECKLIST

Gateway Community and Technical College

Category 1: GCTC General Education Core Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
ENG 102	Writing II (WC)	3	ENG 291	
TBS XXX	Oral Communication (OC)	3	TBD XXX	
MAT 171	Precalculus (QR)	5	MAT 103 + MAT 119	
STA 220	Statistics (QR)	3	STA 205	
CHE 170/175	General College Chemistry I and General College Chemistry Laboratory I (SL)	5	CHE 120/ CHE 120L	
PHY 201/202	College Physics I and College Physics Laboratory I (SL)	5	PHY 211 + PHY 200T	
SOC 101	Introduction to Sociology (SB)	3	SOC 100	
TBS XXX	Social Behavioral Science Course (SB)	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Heritage	3	TBD XXX	
TBS XXX	Arts & Humanities (AH) – Humanities	3	TBD XXX	
	Subtotal General Education Core Courses	**39**		

TBS XXX means to be selected by GCTC student.
TBD XXX means to be determined by NKU based on course selected.

For Social and Behavioral Sciences courses, two disciplines must be represented and different from those in the Arts and Humanities category.

Category 2: GCTC AS Requirements

GCTC Course	Course or Category	Credits	NKU Course	Completed
MAT 175	Calculus I (QR)	5	MAT 129	
	Subtotal AS Requirement Courses	**5**		

Category 3: GCTC Electives

GCTC Course	Course or Category	Credits	NKU Course	Completed
CAD 100	Introduction to Computer Aided Design	3	EGT 212	
FYE 105	Achieving Academic Success	3	UNV100T	
ELT 110	Circuits I	5	EGT 161	
ELT 114	Circuits II	5	EGT 243	
	Subtotal Elective Courses	**16**		
	Total Associate Degree Hours	**60**		

Degree Requirement: One course must be selected from the KCTCS identified Cultural Competence course list in the KCTCS catalog.

Northern Kentucky University

Category 4: NKU Major Requirements for BS in Mechatronics Engineering Technology

NKU Course	Course	Credits	GCTC Course	Taken at GCTC
CHE 130/130L	Chemistry: An Engineering Approach	4	Waived by CHE 170/175	x
MAT 119	Precalculus Mathematics	3	MAT 160 or MAT 171	x
MAT 129	Calculus I	4	MAT 175	x
PHY 211	General Physics with Laboratory I	4	PHY 201/202	x
PHY 213	General Physics with Laboratory II	4	PHY 203/204	
SOC 100	Introduction to Sociology	3	SOC 101	x
STA 205	Statistical Methods	3	STA 220 or (MAT 151 or STA 151 or MAT 161) + STA 251	x
EGT 116	Introduction to Manufacturing	3	WLD 152	
EGT 161	D.C. Circuit Analysis	3	ELT 110	x
EGT 212	Computer-Aided Drafting and Design	3	CAD 100	x
EGT 243	A.C. Circuit Analysis	3	ELT 114	x
EGT 245	Digital Electronics	3	ELT 120 + ELT 220 = EGT 245 + EGT 300T	
EGT 261	Engineering Materials	3		
EGT 267	Programming for Engineering Applications	3		
EGT 300	Statics and Strength of Materials	3	ELT 201	
EGT 301	Cooperative Education in Engineering Technology	3		
EGT 310	Project Management and Problem Solving	3		
EGT 340	Applied Dynamics	3		
EGT 361	Fluid Power	3	FPX100/101	
EGT 367	Microprocessors	3		
EGT 386	Electromechanical Instrumentation and Control	3	ELT 244 + ELT 250 = EGT 386 + EGT 300T	
EGT 402	Control Systems	3		
EGT 408	Mechatronics Topics	3		
EGT 416	Capstone I	1		
EGT 417	Capstone II	3		

NKU Course	Course	Credits	GCTC Course	Taken at GCTC

	Choose one track:
	  Automated Systems Track
	  Computer Science Track
	(Required courses for each track are listed in Categories 5-6 tables below.)
		18		

	Subtotal Major Credit Hours at NKU	**65**		
	Subtotal Major Credit Hours at GCTC	**30**		
	Total Major Credit Hours	**95**		
	Total Baccalaureate Degree Credit Hours	**125**		

Students must choose one of the following tracks: Automated Systems Track, Alternative Energy Track, Laser Technology Track or Computer Science Track. Credits hours for the tracks and bachelor degree can vary based on the courses taken at GCTC. Some courses in the Alternative Energy Track and the Laser Technology track will be taken at Cincinnati State Technical and Community College.

Category 5: NKU Requirements for the Automated Systems Track

NKU Course	Course or Category	Credits	GCTC Course	Taken at GCTC
EGT 265	Manufacturing Processes and Metrology	3		
EGT 320	Robotic Systems and Material Handling	3	ELT 260	
EGT 365	CNC & Manufacturing Process Planning	3		
EGT 465	Automated Manufacturing Systems	3		
EGT 480	Machine Design	3		
EGT XXX	Select 3 additional credit hours of EGT courses at NKU	3		
	Additional Track Credit Hours	**18**		

Category 6: NKU Requirements for the Computer Science Track

NKU Course	Course or Category	Credits	GCTC Course	Taken at GCTC
CSC 260	Object Oriented Programming I	3	CIT 149 + CIT 249 = CSC 260 + CSC 360	
CSC 360	Object Oriented Programming II	3	CIT 149 + CIT 249 = CSC 260 + CSC 360	
CSC 362	Computer Systems	3		

NKU Course	Course or Category	Credits	GCTC Course	Taken at GCTC
CSC 407	Concepts of Programming Languages	3		
CSC 462	Computer Architecture	3		
INF 120	Elementary Programming	3		
	Additional Track Credit Hours	**18**		

Updated April 2023