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## TWO DEGREES, ONE PATH

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### TRANSFER PATHWAY GUIDE 2024-2025

Associate in Science to  
Bachelor of Science in Electrical and Electronic Engineering Technology

#### ***Overview***

Completion of the following curriculum will satisfy the requirements for the Associate in Science (AS) degree at a Kentucky Community and Technical College System (KCTCS) institution and leads to the Bachelor of Science (BS) in Electrical and Electronic Engineering Technology degree at Northern Kentucky University (NKU).

#### ***Applying to the KCTCS2NKU 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 a KCTCS institution, enrolled in an associate degree program, plan to transfer to NKU, and maintain a minimum 2.0 cumulative GPA at their KCTCS institution.

#### ***Degree Requirements for KCTCS***

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.

This program provides students with both the technological and managerial skills necessary to enter careers in design, application, installation, manufacturing, operation, and maintenance of electrical or electronics systems. Graduates gain skills to analyze, design, apply, and troubleshoot systems with electronic, digital, analog, microcontroller, software, and mechanical components. The combination of practical and theoretical education leads to graduates with diverse technical skills throughout a wide

range of applications. Students are required to co-op in industry starting with their second year at school, which often continues and leads to full-time employment.

### ***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 a KCTCS institution.

**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.

## KCTCS AS TO NKU BS IN ELECTRICAL AND ELECTRONIC ENGINEERING TECHNOLOGY CHECKLIST

### Kentucky Community and Technical College System

#### Category 1: KCTCS General Education Core Requirements

KCTCS Course	Course or Category	Credits	NKU Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
ENG 102	Writing II (WC)	3	ENG 102	
TBS XXX	Oral Communications (OC)	3	TBD XXX	
MAT 171	Precalculus (QR)	5	MAT 103 + MAT 119	
(MAT 151 or STA 151 or MAT 161) + STA 251 or STA 220	Applied Statistics Sequence (QR) or Statistics (QR)	3-8	STA 100G + STA 205 or 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/College Physics Laboratory I	5	PHY 211	
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	
	<b>Subtotal General Education Core Courses</b>	<b>39-44</b>		

TBS XXX means to be selected by KCTCS 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.

Students who are calculus ready are not required to take pre-calculus.

STA 251 equates to STA 205 only with the completion of MAT 151, STA 151 or MAT 161.

#### Category 2: KCTCS AS Requirements

KCTCS Course	Course or Category	Credits	NKU Course	Completed
MAT 175	Calculus I	5	MAT 129	
	<b>Subtotal AS Requirement Courses</b>	<b>5</b>		

### Category 3: KCTCS Electives

KCTCS Course	Course or Category	Credits	NKU Course	Completed
CAD 100	Introduction to Computer Aided Design	3	EGT 212	
	First Year Experience	0-3		
ELT 110	Circuits I	5	EGT 161	
ELT 114	Circuits II	5	EGT 243	
ELT 201	Statics and Strengths of Materials	4	EGT 300	
	<b>Subtotal Elective Courses</b>	<b>17-20</b>		
	<b>Total Associate Degree Hours</b>	<b>61-69</b>		

A course carrying the Cultural Competence status must also be completed as part of the AA and AS requirements. Approved Cultural Competence courses are listed in the catalog under Academic Services - Cultural Competence Requirement.

### Northern Kentucky University

#### Category 4: NKU Major Requirements for BS in Electrical and Electronic Engineering Technology

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
CHE 130/130L	Chemistry: An Engineering Approach	4	Waived by CHE 170/175	x
MAT 119	Precalculus Mathematics	3	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 161	DC Circuit Analysis	3	ELT 110	x
EGT 212	Computer-Aided Drafting and Design	3	CAD 100	x
EGT 243	AC Circuit Analysis	3	ELT 114	x
EGT 245	Digital Electronics	3	ELT 120 + ELT 220	
EGT 267	Programming for Engineering Applications	3		
EGT 301	Cooperative Education in Engineering Technology	3		
EGT 310	Project Management and Problem Solving	3		
EGT 330	Electrical Machines	3	ELT 201	x
EGT 344	Analog Electronics	3	ELT 210 + ELT 214	

NKU Course	Course	Credits	KCTCS Course	Taken at KCTCS
EGT 367	Microprocessors	3		
EGT 377	Power Electronics	3		
EGT 386	Electro-Mechanical Instrumentation and Control	3	ELT 244 + ELT 250	
EGT 402	Control Systems	3		
EGT 404	Signals and Systems	3		
EGT 416	Capstone I	1		
EGT 417	Capstone II	3		
EGT 448	Network Hardware	3		
EGT 467	Advanced Microprocessors	3		
EGT 477	Advanced Power Systems	3		
Select 15 hours:	Select 15 hours of electives from the following list:			
EGT 261	Engineering Materials			
EGT 280	Introduction to Microsystems			
EGT 300	Statics and Strength of Materials		ELT 201 = EGT 300	
EGT 318	Introduction to Nanotechnology			
EGT 320	Robotic Systems and Material Handling			
EGT 321	Productivity Management, Scheduling, and Planning		ELT 260 = EGT 320	
EGT 340	Applied Dynamics	15		x (Need 12 more credits)
EGT 361	Fluid Power		ELT 265 = EGT 361	
EGT 394	Special Topics (1-3 credits)			
EGT 405	Metrology and Geometric Tolerancing			
EGT 408	Mechatronics Topics			
EGT 412	Advanced CADD			
EGT 423	Planning and Design of Industrial Facilities			
EGT 450	Thermodynamics and Heat Transfer			
	<b>Subtotal Major Credit Hours at NKU</b>	<b>59</b>		
	<b>Subtotal Major Credit Hours at KCTCS</b>	<b>36</b>		
	<b>Total Major Credit Hours</b>	<b>95</b>		
	<b>Total Baccalaureate Degree Credit Hours</b>	<b>120-128</b>		

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