



## TRANSFER PATHWAY GUIDE 2022-2023

Associate in Science to Bachelor of Science in Biomedical Engineering

### **Overview**

Completion of the following curriculum will satisfy the requirements for an Associate in Science at the Kentucky Community and Technical College System and leads to the Bachelor of Science in Biomedical Engineering at the University of Kentucky.

### **Admission Requirements**

Engineering Standing upon transfer is available to students who maintain an overall and pre-major GPA of 2.5. Pre-major courses considered in the standing for Biomedical Engineering include the following or their equivalencies: BIO 148, BIO 152, BME 201, CHE 105, CIS/WRD 110, CIS/WRD 111, EGR 101, EGR 102, EGR 103, MA 113, MA 114, MA 213, PHY 231, PHY 232, PHY 241 and PHY 242.

KCTCS students planning to transfer to the University of Kentucky should work closely with a UK Transfer Advisor each semester to ensure that both KCTCS and UK degree requirements are met.

### **Degree Requirements**

Students can transfer a total of 67 credit hours from a two-year institution. Additionally, 30 of the final 36 credit hours earned toward a UK degree must be completed at UK. To graduate, students must maintain a 2.0 cumulative GPA and complete 120 total credit hours.

### **General Transfer Requirements**

All prospective transfer students are encouraged to receive advising from the University of Kentucky Transfer Center. Appointments are offered online and in-person, and can be scheduled online at <https://www.uky.edu/admission/transfer-advising>.

Additionally, we recommend reviewing the transfer admission requirements (<https://www.uky.edu/admission/transfer-requirements>) and the Frequently Asked Questions (<https://www.uky.edu/admission/transfer/frequently-asked-questions>) on our website: <https://www.uky.edu/admission/transfer>.

For more information, please contact the UK Transfer Center by email at [UKTransfer@uky.edu](mailto:UKTransfer@uky.edu), by phone at 859-257-2000, or in-person in Room 100 of the Funkhouser Building on UK's campus.

# KCTCS ASSOCIATE IN SCIENCE TO UNIVERSITY OF KENTUCKY BACHELOR OF SCIENCE IN BIOMEDICAL ENGINEERING CHECKLIST

## Kentucky Community and Technical College System

### Category 1: KCTCS General Education Core Requirements (33 hours)

KCTCS Course	Course or Category	Credits	UK Course	Completed
ENG 101	Writing I (WC)	3	ENG 101	
ENG 102	Writing II (WC)	3	ENG 102	
TBS XXX	Oral Communication (OC)	3	TBD XXX	
TBS XXX	Heritage (AH)	3	TBD XXX	
TBS XXX	Humanities (AH)	3	TBD XXX	
TBS XXX	Social and Behavioral Science (SB)	3	TBD XXX	
TBS XXX	Social and Behavioral Science (SB)	3	TBD XXX	
PHY 231/241	University Physics I	5	PHY 231/241	
PHY 232/242	University Physics II	5	PHY 232/242	
MAT 174/175	Calculus I	4-5	MA 113	
MAT 184/185	Calculus II	4-5	MA 114	
	<b>Subtotal General Education Core</b>	<b>39-41</b>		

TBS XXX means to be selected by KCTCS student.

TBD XXX means to be determined by University of Kentucky based on course selected.

One of these courses must be selected from the KCTCS identified Cultural Studies course list, indicate by placing (CS) next to the course name in Category 1 or 2 table.

### Category 2: KCTCS AS Requirements (6 hours)

KCTCS Course	Course or Category	Credits	UK Course	Completed
CHE 170	General College Chemistry I	4	CHE 105	
CHE 180	General College Chemistry II	4	CHE 107	
	<b>Subtotal AA/AS Requirement Courses</b>	<b>8</b>		

### Category 3: KCTCS Electives (21 hours)\*

KCTCS Course	Course or Category	Credits	UK Course	Completed
	Digital Literacy**	0-3		
	First-Year Experience	0-3		
BIO 150	Principles of Biology I	3	BIO 148	
BIO 152	Principles of Biology II	3	BIO 152	
CS 115U	Introduction to Computer Programming	3	CS 115	
MAT 275	Calculus III	4	MA 213	
MAT 285	Calculus IV	3	MA 214	
	<b>Subtotal Elective Courses</b>	<b>16-22</b>		
	<b>TOTAL Associate Degree Hours</b>	<b>63-71</b>		

\*Students should work with their KCTCS academic advisors to ensure they earn a total of 60 credit hours from KCTCS to graduate with their AS.

\*\*It's recommended that students take the IC3 exam to bypass the Digital Literacy exam.

## University of Kentucky

### Major Requirements for Bachelor of Science in Biomedical Engineering

UK Course	Course	Credits	KCTCS Course	Taken at KCTCS
BIO 152	Introductory Biology II	3	BIO 152	
BME/PRD 170	Human Anatomy for Design	3		
BME 201	Introduction to Biomedical Engineering	3		
EGR/PRD 250	Computer-Aided Design: Solidworks	2		
PRD 272	Introduction to UX for Product Design	2		
BME 302	Design Strategies for Biomedical Engineering	3		
BME 330	Experimental Methods in Biomedical Engineering	3		
BME/PRD 350	Materials and Processes	3		
BME/PRD 371	Ergonomics	1		
BME/PRD 372	UX + UI for Product Design	1		
BME 420	Senior Design Project in Biomedical Engineering I	3		
BME 421	Senior Design Project in Biomedical Engineering II	3		
BME 435	Computer Modeling of Complex Systems	4		
BME/PRD 451	Integrated Entrepreneurship in Produce Design	2		
CHE 107	General College Chemistry II	3	CHE 107	
MA 214	Calculus IV	3	MA 214	
PGY 412G	Principles of Human Physiology	4		
STA 381	Engineering Statistics-A Conceptual Approach	3		
TBS XXX	Guided Engineering Elective*	9		
TBS XXX	Basic BME Elective*	12		
TBS XXX	Advanced BME Elective*	6		
<b>Subtotal UK Credit Hours</b>		<b>73</b>		
<b>Total Baccalaureate Degree Credit Hours</b>		<b>133-143</b>		

\*These courses will be selected in conjunction with a UK academic advisor.

## Sample Course Sequence: KCTCS Associate in Science to UK Bachelor of Science in Biomedical Engineering

KCTCS Fall Semester 1	
ENG 101	3
First-Year Course	3
CHE 170	4
MAT 174/175	4-5
CS 115U	3
<b>Total</b>	<b>17-18</b>

KCTCS Spring Semester 1	
ENG 102	3
CHE 180	4
MAT 184/185	4-5
Humanities	3
<b>Total</b>	<b>14-15</b>

KCTCS Summer Semester 1	

KCTCS Fall Semester 2	
PHY 231/241	5
SBS	3
Heritage	3
MAT 275	4
BIO 150	3
<b>Total</b>	<b>18</b>

KCTCS Spring Semester 2	
MAT 285	3
PHY 232/242	5
Oral Comm.	3
SBS	3
BIO 152	3
<b>Total</b>	<b>17</b>

UK Summer Semester 2	

UK Fall Semester 3	
<b>Total</b>	

UK Spring Semester 3	
<b>Total</b>	

UK Summer Semester 3	
<b>Total</b>	

UK Fall Semester 4	
<b>Total</b>	

UK Spring Semester 4	
<b>Total</b>	

UK Summer Semester 4	

\*These courses will be selected in conjunction with a UK academic advisor.