



TRANSFER PATHWAY GUIDE

Associate in Science to Bachelor of Science in Chemical 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 Chemical 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 Chemical Engineering include the following or their equivalencies: CHE 105, CHE 107, CHE 111, CHE 113, CIS/WRD 110, MA 113, MA 114, MA 213, and PHY 231. Additionally, students must complete CME 200 with a grade of C or better. Other required pre-major courses are EGR 101+103 (or EGR 215), and EGR 102. These are not considered for standing.

Chemistry labs must be taken in-person.

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

To graduate, students must maintain a 2.0 cumulative GPA and complete a minimum of 120 credit hours. Additionally, 30 of the final 36 credit hours earned toward a UK degree must be completed at UK.

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, 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 CHEMICAL 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	
CHE 170/175*	General College Chemistry I (NS)	5	CHE 105/111	
CHE 180/185*	General College Chemistry II (NS)	5	CHE 107/113	
MAT 174/175	Calculus I (QR)	4-5	MA 113	
MAT 184/185	Calculus II (QR)	4-5	MA 114	
Subtotal General Education Core		39-41		

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.

*CHE 175 and 185 must be taken in-person

Category 2: KCTCS AS Requirements (6 hours)

KCTCS Course	Course or Category	Credits	UK Course	Completed
PHY 231	University Physics I	4	PHY 231	
PHY 232	University Physics II	4	PHY 232	
	Subtotal AA/AS Requirement Courses	8		

Category 3: KCTCS Electives (21 hours)*

KCTCS Course	Course or Category	Credits	UK Course	Completed
TBS XXX	Digital Literacy**	0-3	TBD XXX	
FYE XXX	First-Year Experience	0-3	GEED 1--	
TBS XXX	CIS 155 or CIT 142/143/144/149 or CS 115U	3	CS 115	
MAT 275	Calculus III	4	MA 213	
MAT 285	Calculus IV	3	MA 214	
	Subtotal Elective Courses	10-16		
	TOTAL Associate Degree Hours	60-70		

*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.

Major Requirements for Bachelor of Science in Chemical Engineering

UK Course	Course	Credits	KCTCS Course	Taken at KCTCS
MSE 201	Materials Science	3		
CME 200	Process Principles	3		
CME 220	Computational Tools in Chemical Engineering	3		
CME 320	Engineering Thermodynamics	3		
CME 330	Fluid Mechanics	3		
CME 415	Separation Processes	3		
CME 420	Process Modeling in CME	3		
CME 425	Heat and Mass Transfer	4		
CME 432	Chemical Engineering Laboratory I	2		
CME 006	The Engineering Profession (Junior and Senior)	0		
CME 433	Chemical Engineering Laboratory	3		
CME 455	Chemical Engineering Product and Process Design	3		
CME 456	CME Process Design II	3		
CME 462	Process Control	3		
CME 470	Safety, Ethics, and Sustainability	3		
CME 550	Chemical Reactor Design	3		
TBS XXX	Engineering/Science Electives (see catalog for specific requirements)	12		
CHE 230+231	Organic Chemistry I with Lab	4	CHE270+275	
CHE 232	Organic Chemistry II	3	CHE 280	
PHY 232	University Physics II	4		
STA 381	Engineering Statistics: A conceptual approach	3		
WRD 204	Technical Writing	3		
Subtotal UK Credit Hours		73		
Total Baccalaureate Degree Credit Hours		133-143		

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

Updated: Fall 2025

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

KCTCS Fall Semester 1	
ENG 101	3
First-Year Course	3
CHE 170/175	5
MAT 174/175	4-5
Total	14-15

CHE 180/185	5
MAT 184/185	4-5
Heritage	3
SBS	3
Total	18-19

KCTCS Summer Semester 2	

KCTCS Fall Semester 2	
PHY 231	4
MAT 275	4
Oral Comm.	3
CS 115U	3
CHE 270/275	5
Total	19

KCTCS Spring Semester 2	
MAT 285	3
PHY 232	4
Humanities	3
SBS	3
CHE 280/285	5
Total	18

UK Fall Semester 4	
Total	

UK Fall Semester 3	
Total	

UK Spring Semester 3	
Total	

UK Spring Semester 5	
Total	

UK Spring Semester 4	
Total	

UK Fall Semester 5	
Total	

KCTCS Spring Semester 1	
ENG 102	3

KCTCS Summer Semester 1	