

The following table outlines how transfer credits will be applied to the Bachelor of Science in Chemistry degree at Kent State University for students who completed an Associate of Science degree via the Ohio Guaranteed Chemistry Transfer Pathway. The OGTP designation guarantees the transfer and applicability of credits, but does not guarantee admission to a program. Some bachelor-degree granting programs may be competitive, and students should check with individual institutions for their program admission requirements.

COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE	Course Number	Credit Hours
GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		
Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 11011	3
Calculus I (TMM005)	MATH 12002	5
Any Ohio Transfer 36 approved Arts and Humanities course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Arts and Humanities course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Social and Behavioral Sciences course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Social and Behavioral Sciences course	Ohio Transfer 36 Elective*	3
General Chemistry I with lab (OSC008)	CHEM 10060 and CHEM 10062	5
General Chemistry II with lab (OSC009)	CHEM 10061 and CHEM 10063	5
Any Ohio Transfer 36 approved Second Writing (TME002) course	ENG 21011	3
Calculus II (TMM006)	MATH 12003	5
Up to 3-4 additional hours of Ohio Transfer 36 approved courses	Ohio Transfer 36 Elective*	3-4
PRE-MAJOR/BEGINNING MAJOR		
Calculus-based Physics I with lab (OSC016)	PHY 23101	5
Calculus-based Physics II with lab (OSC017)	PHY 23102	5
Full-Year Sequence of Organic Chemistry with lab (OSC010)	CHEM 30481, CHEM 30482, CHEM 30475, and CHEM 30476	8
OTHER RECOMMENDATIONS		
General Electives	Varies*	0-6
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65
Advising Notes: (*) Indicates that coursework will be evaluated for applicable equivalency upon transfer at the university. If a Transfer Assurance Guide (TAG) course is taken, the approved course equivalency will be awarded.		

SPECIAL NOTES

Students with plans of pursuing a pre-professional or graduate studies track in the future should work closely with their academic advisor and receiving institution starting in the first year of their program in order to adequately prepare themselves for those types of tracks. Some pre-professional degrees include pre-medicine, pre-veterinary, pre-law, and pre-dentistry.

Effective beginning Academic Year 2019-20 (Last revised May 25, 2021)

The following additional coursework will be required to complete the Bachelor of Science in Chemistry degree at Kent State University after a student has completed an Associate of Science Ohio Guaranteed Chemistry Transfer Pathway degree. This coursework is for Chemistry concentration, however Kent State University does offer other concentrations as well as a Bachelor of Arts in Chemistry. Please refer to the last page of this document for more information about other concentrations and the Bachelor of Arts. Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		Course Number	Credit Hours
University Requirement:	Domestic Diversity Course (if not already completed during the associate degree) ¹	Varies	0-3
University Requirement:	Global Diversity Course (if not already completed during the associate degree) ¹	Varies	0-3
College Requirement:	Foreign Language - Elementary I and II	Varies	8
Major Requirement:	Inorganic Chemistry I	CHEM 30301	2
Major Requirement:	Inorganic Chemistry II	CHEM 40302	2
Major Requirement:	Inorganic Chemistry III	CHEM 40303	2
Major Requirement:	Intermediate Inorganic Chemistry Laboratory	CHEM 40364	1
Major Requirement:	Analytical Chemistry I	CHEM 30105	3
Major Requirement:	Analytical Chemistry Laboratory I	CHEM 30107	1
Major Requirement:	Analytical Chemistry II	CHEM 30106	2
Major Requirement:	Analytical Chemistry Laboratory II	CHEM 30108	2
Major Requirement:	Intermediate Organic Chemistry	CHEM 40483	1
Major Requirement:	Intermediate Organic Chemistry Laboratory	CHEM 40477	1
Major Requirement:	Physical Chemistry I	CHEM 40555	3
Major Requirement:	Physical Chemistry II	CHEM 40556	3
Major Requirement:	Elementary Physical Chemistry Laboratory	CHEM 40568	1
Major Requirement:	Physical Chemistry Laboratory	CHEM 40557	2
Major Requirement:	Introductory Biological Chemistry	CHEM 30284	4
Major Requirement:	Chemistry 40000-level Elective	Varies	3
Major Requirement:	Analytic Geometry and Calculus III	MATH 22005	4
General Electives:	General Electives ²	Varies	10-15
REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:³			55-60
Advising Notes: Completion of the Ohio Transfer 36 will satisfy the entire set of Kent Core requirements. ¹ Students must complete the Kent State diversity course requirement, which includes one course with a domestic diversity focus and one course with a global diversity focus from the approved list. These can often be fulfilled as part of the associate degree with careful course selection. Please work with your advisor to identify appropriate courses. ² The College of Arts and Sciences requires that students successfully complete a minimum of 42 upper-division credit hours. ³ Kent State requires a total of 120 credits hours for bachelor's degree completion. The total number of hours to complete the bachelor's degree represents a range of hours that may be needed depending on the individual course selections made during the associate degree program.			

COMPLETE BACHELOR'S DEGREE	Total Credit Hours
BACHELOR'S DEGREE TOTAL:	120

SPECIAL NOTES

For more information, please contact:
Department of Chemistry and Biochemistry
pathways@kent.edu
<https://www.kent.edu/chemistry>

SAMPLE DEGREE MAP

THIRD YEAR

SEMESTER 5		SEMESTER 6	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
CHEM 30105 Analytical Chemistry I	3	CHEM 30106 Analytical Chemistry II	2
CHEM 30107 Analytical Chemistry Laboratory I	1	CHEM 30108 Analytical Chemistry Laboratory II	2
CHEM 40483 Intermediate Organic Chemistry	1	CHEM 40556 Physical Chemistry II	3
CHEM 40477 Intermediate Organic Chemistry Laboratory	1	CHEM 40568 Elementary Physical Chemistry Laboratory	1
CHEM 40555 Physical Chemistry I	3	MATH 22005 Analytic Geometry and Calculus III	4
CHEM 30301 Inorganic Chemistry I	2	Foreign Language - Elementary II	4
Foreign Language - Elementary I	4		
Total Semester 5 Credit Hours	15	Total Semester 6 Credit Hours	16

FOURTH YEAR

SEMESTER 7		SEMESTER 8	
Course Name & Number	Credit Hours	Course Name & Number	Credit Hours
CHEM 40302 Inorganic Chemistry II	2	CHEM 30284 Introductory Biological Chemistry	4
CHEM 40557 Physical Chemistry Laboratory	2	CHEM 40303 Inorganic Chemistry III	2
CHEM 40000 Elective	3	CHEM 40364 Intermediate Inorganic Chemistry Laboratory	1
General Elective (upper-division as needed)	3	General Elective (upper-division as needed)	3
General Elective (upper-division as needed)	3	General Elective (upper-division as needed)	3
Total Semester 7 Credit Hours	13	Total Semester 8 Credit Hours	13

The Chemistry BS Ohio Guaranteed Transfer Pathway is tailored to the Chemistry concentration. The Chemistry concentration is designed for students interested in careers as practicing chemists in industrial research and development, in government research laboratories or in academia. It includes a strong foundation in both chemistry and related disciplines (physics and mathematics) and provides opportunities to pursue advanced chemistry electives. This concentration meets the requirements for certification by the American Chemical Society and is ideal for students who plan to pursue graduate studies in chemistry.

The following concentrations are also available:

- The **Biochemistry concentration** provides provides strong preparation for students interested in pursuing graduate studies in biochemistry or planning a career as a practicing biochemist in industrial research and development, government research laboratories or in academia. It also provides ideal preparation for students intending to pursue a Doctor of Pharmacy degree, having been designed to closely fit the requirements for admission to the Northeastern Ohio Medical University (NEOMED). With careful planning students may transfer to NEOMED after three years at Kent State, using 16 credit hours of courses from NEOMED to complete their Kent State degree requirements. With the selection of appropriate elective courses, this concentration meets the minimum requirements for certification by the American Chemical Society.
- The **Biochemistry–Pre-Medicine/Pre-Osteopathy/Pre-Dentistry concentration** is the recommended track for students intending to go on to medical or dental school.
- The **Industrial Chemistry concentration** provides solid background training in the major areas of chemistry, as well as practical training and related experiences in fields sought by local and regional chemical industries.
- The **Materials Chemistry concentration** is recommended for students interested in pursuing graduate study or industrial careers in materials science, including nanotechnology. Its requirements, similar to those of the traditional chemistry concentration, provide an opportunity for more in-depth study in the synthesis and characterization of inorganic and organic materials, including polymers.

Students interested in a different concentration will need to complete different required courses. Interested students should contact pathways@kent.edu.

Kent State University also offers a Bachelor of Arts degree in Chemistry. The BA in Chemistry allows students greater flexibility in choosing electives than the B.S. degree. Although not intended for students planning to become practicing chemists, the B.A. degree program is well suited for those needing a strong chemistry background as preparation for other career opportunities. Interested students should contact pathways@kent.edu.