

BS in Chemistry with concentration in Chemical Physics

Below is a sample 4-year plan for students pursuing the BS in Chemistry with a concentration in Chemical Physics. To view the list of courses approved to fulfill Core 34, please visit the KU Core 34 page (<https://catalog.ku.edu/core34/>). (<https://kucore.ku.edu/ku-core-34-0/>)

This degree plan assumes students will have the equivalent of MATH 103 or MATH 104 prior to freshman year, fall semester.

Freshman

Fall	Hours	Spring	Hours
Core 34: English (SGE) ⁰¹⁰	3	Core 34: English (SGE) ⁰¹⁰	3
MATH 125 or 145 (Core 34: Math and Statistics (SGE)) ^{030*}	4	Core 34: Communications (SGE) ⁰²⁰	3
Core 34: Social and Behavior Science (SGE) ⁰⁵⁰	3	MATH 126 or 146 (Major Pre-requisite)	4
CHEM 170, 130, or 190 (Core 34: Natural and Physical Sciences (SGE), Major Requirement) ^{040*,1,2}	5	CHEM 175, 135, or 195 (Major Requirement) ²	5
CHEM 180 (Major Requirement) ²	0.5		
	15.5		15

Sophomore

Fall	Hours	Spring	Hours
PHSX 211 & PHSX 216 (Major Pre-requisite)	5	Core 34: Social and Behavioral Science (SGE) ⁰⁵⁰	3
MATH 127 or 147 (Major Pre-requisite)	4	PHSX 212 & PHSX 236 (Major Pre-requisite)	4
MATH 290 or 291 (Major Pre-requisite)	2	MATH 220 or 320 (Major Pre-requisite)	3
CHEM 330 or 380 (Major Requirement) ²	3	CHEM 335 or 385 (Major Requirement) ²	3
CHEM 331 (Major Requirement) ²	2	CHEM 336 (Major Requirement) ²	2
	16		15

Junior

Fall	Hours	Spring	Hours
CHEM 201 (Major Requirement) ²	1	CHEM 535 (Major Requirement) ²	3
CHEM 400 (Major Requirement) ²	3	CHEM 537 (Major Requirement) ²	3
CHEM 401 (Major Requirement) ²	2	Chemical Physics Required Elective Group I (Major Requirement, 2 crs req) ³	3
CHEM 530 (Major Requirement) ²	4	Core 34: Arts and Humanities (SGE) ⁰⁶⁰	3

Chemical Physics Required Elective Group I (Major Requirement, 2 crs req) ³	3	Core 34: US Culture (SGE) ⁰⁷⁰	3
Core 34: Global Culture (SGE) ⁰⁷⁰	3		
	16		15

Senior

Fall	Hours	Spring	Hours
BIOL 600 (Major Requirement)	3	Core 34: Arts and Humanities (SGE) ⁰⁶⁰	3
CHEM 695 (Major Requirement) ²	0.5	CHEM 635 (Major Requirement) ^{2,5}	2
CHEM 698 ⁵	2	CHEM 636, 698, or 699 (Capstone Requirement) ^{2,5}	3
Chemical Physics Required Elective Group II (Major Requirement, 2 crs req) ³	3	Chemical Physics Required Elective Group II (Major Requirement, 2 crs req) ³	3
Chemistry Elective/Second Area of Study/Degree/Junior-Senior Hours ⁴	3	CHEM 661 (Major Requirement) ²	2
CHEM 660 (Major Requirement) ²	3		
	14.5		13

Total Hours 120

- ¹ CHEM 170 requires eligibility for MATH 115 in order to enroll.
- ² Refer to the Course Frequency Chart (<https://chem.ku.edu/course-frequency-chart/>) to see which semesters Chemistry courses are offered (Honors and upper division courses tend to only be offered once per academic year).
- ³ A list of courses that fulfill Group I and Group II can be found on the degree requirements tab of the catalog.
- ⁴ Hour requirements (incl. 45 jr/sr hrs) are typically met through Core 34, degree, major, second area of study and/or elective hours. Students completing the BGS with a major must choose a secondary area of study. Individual degree mapping is done in partnership with your advisor.
- ⁵ Students can elect to enroll in CHEM 636 Instrumental Methods of Analysis Laboratory or 3 hours of undergraduate research (CHEM 698 or CHEM 699) to fulfill the Capstone requirement. Students who elect to take CHEM 636 must also take the co-requisite course CHEM 635 Instrumental Methods of Analysis.

Please note:

All students in the College of Liberal Arts and Sciences are required to complete 120 total hours of which 45 hours must be at the Jr/Sr (300+) level.

*Courses with a * designate courses that are degree requirements but can also be taken to fulfill the KU Core 34 requirement. If another course is used to fulfill the Core 34 requirement, the course listed is still required as a degree requirement.

Notes:

* - This course is a Required major course and is also part of Core 34: Systemwide General Education. If this course is not taken to fulfill the Core 34:SGE requirement, it must be taken in place of elective hours.

** - This course is a Recommended Core 34: Systemwide General Education course. This specific course is not required but is recommended by the program's faculty.

*** - This course is a Required Core 34: Systemwide General Education course. This program is approved by the Kansas Board of Regents to require this specific Core 34: Systemwide General Education course. If a student did not take this course it must be taken in addition to other degree requirements.