

BS in Chemistry - Chemistry Option

The curriculum for the BS in chemistry (either the chemistry or biochemistry option) is approved by the American Chemical Society for the professional training of chemists. It is strongly recommended that students interested in advanced study in chemistry or biochemistry should pursue this degree. Students completing the program receive certification from the American Chemical Society.

In agreement with the American Chemical Society Committee on Professional Training, the chemistry and biochemistry department strongly encourages students studying for the BS degree to select courses in computer science, economics, marketing and business, and to use every opportunity to develop competence in technical writing and oral communication.

Program Requirements

A minimum total of 120 credit hours is required for the BS in chemistry and includes the 82-88 credit hours of major courses that must be completed with a minimum grade point average of 2.000. In addition to meeting the requirements of the WSU General Education Program (<http://catalog.wichita.edu/undergraduate/academic-information/general-education-program/>) and the requirements of Fairmount College of Liberal Arts and Sciences, students in the BS in chemistry must take the following courses:

Course	Title	Hours
General Education		
Select courses to meet General Education requirements ¹		34-35
College Requirements		
LAS Competencies and Electives - select enough courses to reach 120 credit hours and complete all LAS Competency Areas ¹		0-4
Major Requirements		
CHEM 211 & CHEM 212	General Chemistry I and General Chemistry II	10
CHEM 514	Inorganic Chemistry	3
CHEM 523 & CHEM 524	Analytical Chemistry and Instrumental Methods of Chemical Analysis	8
CHEM 531 & CHEM 532	Organic Chemistry I and Organic Chemistry II	10
CHEM 545 & CHEM 546	Physical Chemistry I and Physical Chemistry II	6
CHEM 547	Physical Chemistry Lab	2
CHEM 615	Advanced Inorganic Chemistry	3
CHEM 616	Inorganic Chemistry Lab	2
Select one of the following ²		3, 6
CHEM 661	Principles of Biochemistry	
CHEM 662 & CHEM 663	Biochemistry I and Biochemistry II	
CHEM 690	Independent Study and Research	2
BIOL 210	General Biology I	4
PHYS 313	Physics for Scientists I	4
PHYS 314	Physics for Scientists II	4
PHYS 315	University Physics Lab I	1
PHYS 316	University Physics Lab II	1
MATH 112	Precalculus Mathematics	5
MATH 242	Calculus I	5
MATH 243	Calculus II	5
MATH 344	Calculus III	3
Professional electives as approved below ²		1, 4
CHEM 600-799 (excluding CHEM 700 and CHEM 701)		

BIOL 419, BIOL 420 or BIOL 590 with their necessary prerequisites

Mathematics courses with MATH 344 prerequisite, or MATH 555

Physics courses with PHYS 314 prerequisite

One academic year of German or French

Other courses as approved by the Undergraduate Affairs Committee

Total Credit Hours **120**

¹ Required major courses may also count towards General Education and/or LAS Competencies. Students will need to select additional electives to reach 120 credit hours required for graduation with assistance from an advisor.

² If both CHEM 662 and CHEM 663 are taken, only 1 credit hour of professional electives is required.

Applied Learning

Students in the BS in chemistry program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by completing at least one semester of undergraduate research, by enrollment in CHEM 690.