

UNIVERSITY OF NORTH DAKOTA--DEPARTMENT OF CHEMISTRY
Curriculum for the B.S. in Chemistry (ACS Degree)

REQUIRED 125 credits (36 of which must be numbered 300 or above and 60 of which must be from a 4-year institution) including:

I. General Education Requirements (see University GER listing).

II. The Following Curriculum:

Major Requirements - 49 hours of Chemistry including:

FRESHMAN YEAR		Fall	Spring
Chem 221, 221L	Fundamentals of Chemistry: Concepts & Lab	(4)	
Chem 222, 222L	Fundamentals of Chemistry: Analysis & Lab		(4)
¹ Chem 116	Introduction to Organic and Biochemistry		(3)
Engl 110	Composition I	(3)	
² Engl 125	Technical and Business Writing		(3)
³ Math 165	Calculus I	(4)	
Math 166	Calculus II		(4)
General Education Electives		(5)	(1)
Total Hours		16	15

SOPHOMORE YEAR			
Chem 341, 341L	Organic Chemistry I & Lab	(5)	
Chem 342, 342L	Organic Chemistry II & Lab		(5)
Phys 251, 252	University Physics I, II	(4)	(4)
Math 265	Calculus III	(4)	
General Education & other ⁴ Electives		(3)	(7)
Total Hours		16	16

JUNIOR YEAR			
Chem 464, 465	Physical Chemistry I, II	(3)	(3)
Chem 455	Spectroscopy and Structure	(3)	
⁵ Chem 461, 461L	Instrumental Analysis & Lab		(5)
Level II Language		(4)	(4)
⁴ Electives		(6)	(3)
Total Hours		16	16

SENIOR YEAR			
Chem 462	Physical Chem Laboratory	(3)	
Chem 454	Inorganic Chemistry	(3)	
⁵ Chem 429	Inorganic Laboratory		(1)
Chem 488	Undergraduate Seminar		(1)
Minimum of 6 credits of advanced chemistry electives which must include at least 3 credits of course work(Chem 463, Chem 492, any Chem 500 course or BMB 301)		(3)	(3)
^{5,6} Electives		(5)	(9)
Total Hours		15	15

¹ The biochemistry required for the degree may be fulfilled using either Chem 116 or Biochemistry (BMB 301), but not both.

² With permission of the advisor, a student may substitute English 120 if English 125 is not available.

³ If a student is not ready for Math 165, the math sequence may be moved back one semester and Math 107 (also Math 103, if needed) should be taken in the first semester.

⁴ Suggested electives are courses in Physics, Mathematics, Biochemistry, Biology, Languages, Computer Science, Chemical Engineering, Business Management, and Speech.

⁵ Chem 461 and 429 are offered in alternating spring terms and so may be taken in the junior or senior year.

⁶ Graduate level courses in chemistry may be taken as electives.