

## Courses offered in the Department of Chemistry

**Catalogue Year:**

Core Courses					Elective Courses / Specializations (if any)				
Core Courses	Cr.H	Remarks/ Prerequisite (if any)	Offered in Semester Fall /Spring /Summer	Remarks/ cross-listed etc.	Elective Courses	Cr. H	Pre.Req	Offered in Semester	Remarks/ cross- listed etc.
CHEM 250	4	Intermediate or A-Level Chemistry	Fall & Spring		<b>Inorganic-Analytical Chemistry</b>				
CHEM 261	4	Intermediate or A-Level Chemistry	Fall & Spring		CHEM 413	4	CHEM 311 or 370	Spring	
CHEM 270	4	Intermediate or A-Level Chemistry	Fall & Spring		CHEM 450	4	CHEM 250 or 350	Spring	
CHEM 311	4	Sopho &	Fall & Spring		CHEM 453	3	CHEM 250 or 350	Spring	
CHEM 320	4	above	Fall & Spring		CHEM 454	3	CHEM 250 or 350	Fall	
CHEM 330	4	Sopho & above	Fall & Spring		CHEM 455	4	CHEM 250 or 350	Fall	
CHEM 350	4	CHEM 160 or 261 or Equivalent	Fall & Spring		<b>Organic-Bio Chemistry</b>				
CHEM 361	4	CHEM 150 or 250	Fall & Spring		CHEM 260	4	Intermediate or A-Level Chemistry	Spring	
CHEM 370	4	CHEM 260 or 261	Fall & Spring		CHEM 331	3	CHEM 330	Spring	
					CHEM 462	4	CHEM 260 or 261 or 361	Spring	
					CHEM 464	4	CHEM 260 or 261 or 361	Fall	
					CHEM 465	4	CHEM 330 or 361	Spring	
					<b>Physical Chemistry</b>				
					CHEM 271	3	CHEM 150 or 170 or 270	Fall	
					CHEM 470	3	CHEM 261 or 270	Spring	
					CHEM 471	3	CHEM 271 or 370	Fall	
					CHEM 473	4	CHEM 270 or 370	Fall	
					<b>Other Electives</b>				
					CHEM 262	3	CHEM150, 160, 170	Spring	
					CHEM 340	3	Sopho & above	Fall/ Spri	
					CHEM 342	3	Sopho & above	Spring	
					CHEM 372	3	CHEM 250, 261, 270	Spring	
					CHEM 421	4	CHEM 260 or 261 or 330	Spring	
					<b>Total Credits      66</b>				
<p><b>Note:</b></p> <p>Requirements of Major:</p> <p>48 credits hours including 9 core courses and at least 12 credits hours from elective courses.</p> <p>CGPA, or any other requirement...</p> <p>Requirements of Minor:</p> <p>24 credits hours of 200 level courses or above by selecting at least one course from each of the following areas of elective courses.</p> <p>Inorganic-Analytical Chemistry, Organic-Bio Chemistry and Physical chemistry</p> <p>Equivalences (if any) Or Transfer Credits:</p> <p>Cross-listed Courses:</p> <p>Chem-340, Chem-342, Chem</p> <p>Courses for Gen.Education: (any recommendation)</p> <p>Courses for non-science students: CHEM 100</p> <p>Any other instructions...</p>									

- Specializations & Career opportunities: \_\_\_\_\_

## Roadmap for Chemistry Majors

Catalog year: 2020

Freshmen year					
Fall 2020 (1st Semester)			Spring 2021. (2nd Semester)		
Course	Credit Hr	Remarks/Status	Course	Credit Hr	Remarks/Status
*UNIV100	3		CHEM 170, 173, 261	4,3,4	Students who want to take Chem-150, 160, and 170 are advised to take during the summer semester.
**GEC			GEC		
GEC			GEC		
GEC			GEC		
GEC			CHEM 150, 250	4,4	
Sophomore year					
Fall 2021 (3rd Semester)			Spring 2022 (4th Semester)		
CHEM 160, 270, 271	4,4,3		<b><u>CHEM 261</u></b>	4	300 level courses may also be taken
GEC			GEC		
GEC			GEC		
<b><u>CHEM 250</u></b>	4		CHEM 260, 262	4	
GEC			<b><u>CHEM 270</u></b>	4	
Junior year					
Fall 2022 (5th Semester)			Spring 2023(6th Semester)		
<b><u>CHEM 370</u></b>	4		<b><u>CHEM 350</u></b>	4	400 Level courses may also be taken
<b><u>CHEM 311</u></b>	4		<b><u>CHEM 330</u></b>	4	
<b><u>CHEM 320</u></b>	4		<b><u>CHEM 361</u></b>	4	
**EC	4		**EC	4	
Senior year					
Fall 2023 (7th Semester)			Spring 2024(8th Semester)		
CHEM 413	4	Students are advised to take as many elective courses of their area of interest as possible	CHEM 421	4	Students are advised to take as many elective courses of their area of interest as possible
CHEM 454	3		CHEM 450	4	
CHEM 455	4		CHEM 453	3	
CHEM 464	4		CHEM 462	4	
CHEM 471	3		CHEM 465	4	
CHEM 473	4		CHEM 470	3	
Total Credits:	130				

### Important Notes/Guidelines:

Students are strongly advised to complete GECs by the end of sophomore year and core courses (Chem-250, Chem-261, Chem-270, Chem-311, Chem-320, Chem-330, Chem-350, Chem-361, Chem-370) by the end of junior year. In the senior year they should take as many elective courses as possible.

\*GEC: General Education Course

\*\* CC: Core Courses are underlined and bold above

\*\*\* EC: Elective Course, 300 & 400 level courses should be taken such as Chem-331, Chem-340, Chem-342, Chem-372