

Transfer Planning Worksheet 2020-2021



**NORTH CENTRAL
COLLEGE 1861**

Student Name: _____ North Central ID# _____ College Representative: _____ Date: _____

Chemistry, ACS-Certified, B.S.

Chemists study the structure and transformations of matter, detect and quantify chemical species, and create new substances. A degree in chemistry prepares a student for employment in a private or government laboratory; continuing studies in medical, pharmacy, dental, veterinary or law school; secondary school teaching; a position in business; or graduate study and research in the sciences or engineering. The ACS-certified Chemistry B.S. degree is the curriculum approved by the American Chemical Society and allows students more depth where they work to master the theoretical and applied aspects of chemistry.

Major Requirements

Core Courses			
Course Name	Equivalent	Credit	Grade
CHEM 121 - General Chemistry I	CHEM 1551 @ COD		
CHEM 122 - General Chemistry II	CHEM 1552 @ COD		
CHEM 251 - Organic Chemistry I	CHEM 2551 @ COD		
CHEM 252 - Organic Chemistry II	CHEM 2552 @ COD		
CHEM 301 - Descriptive Inorganic Chemistry			
CHEM 310 - Chemical Analysis			
CHEM 340 - Thermodynamics and Kinetics			
CHEM 345 - Quantum Chemistry and Spectroscopy			
CHEM 391 - Seminar I			
CHEM 392 - Seminar II			
CHEM 401 - Advanced Inorganic Chemistry			
CHEM 485 - Senior Research Capstone			
CHEM 493 - Seminar III			
BCHM 365 - Principles of Biochemistry			
Characterization Courses			
Two of the following:			
Course Name	Equivalent	Credit	Grade
CHEM 311 - Separation Methods			
CHEM 312 - Spectrometry and Spectroscopy			
CHEM 313 - Materials and Surface Analysis			
CHEM 315 - Spectral Interpretation			
Advanced Electives			
Three credit hours from the following:			
Course Name	Equivalent	Credit	Grade
CHEM 311 - Separation Methods (if not taken for the Characterization category)			
CHEM 312 - Spectrometry and Spectroscopy (if not taken for the Characterization category)			
CHEM 313 - Materials and Surface Analysis (if not taken for the Characterization category)			
CHEM 315 - Spectral Interpretation (if not taken for the Characterization category)			
CHEM 451 - Advanced Organic Chemistry			
CHEM 455 - Organometallic Chemistry			
CHEM 490 - Special Topics			
MECH 210 - Materials Science I			
PHYS 200 - Electronic Instrumentation for Scientists			
PHYS 310 - Data Acquisition with LabVIEW			
PHYS 320 - Physics of Solids			

PHYS 440 - Quantum Mechanics			
Additional Requirements for the B.S. Degree			
Course Name	Equivalent	Credit	Grade
MATH 151 - Calculus I	MATH 2231 @ COD		
MATH 152 - Calculus II	MATH 2232 @ COD		
Physics Sequence			
One of the following sequences:			
Non-Calculus			
Course Name	Equivalent	Credit	Grade
PHYS 131 - Physics I (Non-Calculus)	PHYS 1201 @ COD		
PHYS 132 - Physics II (Non-Calculus)	PHYS 1202 @ COD		
Calculus-Based			
Course Name	Equivalent	Credit	Grade
PHYS 161 - Physics I: Mechanics and Heat	PHYS 2111 @ COD		
PHYS 162 - Physics II: Electromagnetism, Waves and Optics	PHYS 2112 @ COD		