

Principia College			UND		
Chemical Engineering requirements					
ENGR 160	2	Intro to Engineering Profession	CHE 102	2	Introduction to Chemical Engineering
Must be taken at UND			CHE 103	3	Computer Tools for Chemical Engineers
Must be taken at UND			CHE 201	3	Chemical Engineering Fundamentals
Must be taken at UND			CHE 206	3	Unit Operations in Chemical Engineering
Must be taken at UND			CHE 232	2	Chemical Engineering Laboratory
Must be taken at UND			CHE 301	4	Introduction to Transport Phenomena
Must be taken at UND			CHE 303	4	Chemical Engineering Thermodynamics
Must be taken at UND			CHE 305	3	Separations
MATH 364	3	Applied Statistical Methods	CHE 315	3	Engineering Statistics and Design of Experiments
Must be taken at UND			CHE 321	3	Chemical Engineering Reactor Design
Must be taken at UND			CHE 331	2	Chemical Engineering Laboratory II
Must be taken at UND			CHE 332	2	Chemical Engineering Laboratory III
Must be taken at UND			CHE 408	3	Process Dynamics and Control
Must be taken at UND			CHE 411	4	Plant Design I: Process Design and Economics
Must be taken at UND			CHE 412	5	Plant Design II: Process Project Engineering
Must be taken at UND			CHE 416	3	Chemical Product Design
Must be taken at UND			CHE 431	3	Chemical Engineering Laboratory IV
Advanced Chemical Science Electives (6 credits required)*					
Material Science Elective (3 credits required)*					
Technical Elective (3 credits required)*					
College of Engineering and Mines Requirements					
ENGR 206	3	Electrical Engineering Circuit Analysis	ENGR 206	3	Fundamentals of Electrical Engineering
ENGR 340	3	Professional Integrity in Engineering	ENGR 340	3	Professional Integrity in Engineering
Required courses for CHE within other departments					
CHEM 131	4	Fundamentals of Chemistry I	CHEM 121/L	3/1	General Chemistry I and lab
CHEM 132	4	Fundamentals of Chemistry II	CHEM 122/L	3/1	General Chemistry II and lab
CHEM 262	4	Organic Chemistry	CHEM 341/L	4/1	Organic Chemistry I and lab
CHEM 311	4	Phys Chem I: Thermodynamics	CHEM 466	4	Fundamentals of Physical and Biophysical Chemistry
SPRT 360	3	Leadership	LEAD 101	3	Learning Leadership
MATH 181	4	Calculus I	MATH 165	3/1	Calculus I
MATH 182	4	Calculus II	MATH 166	4	Calculus II
MATH 283	4	Multivariable Calculus	MATH 265	4	Calculus III
MATH 380	3	Differential Equations	MATH 266	3	Intro to Differential Equations
PHYS 201 + 202	4	Physics for Scientists/Engrs I + II	PHYS 251	4	University Physics I

PHYS 203	4	Physics for Scientists/Engrs III	PHYS 252	4	University Physics II (accepted as waiver)
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All Essential Studies requirements will be waived upon receipt of an official updated transcript verifying a bachelor's degree has been earned.

*Students are encouraged to work with their academic advisor to choose technical electives that fit with their individual learning plan.