

**DEPARTMENT OF CHEMICAL ENGINEERING**  
 University of North Dakota  
 Program for Bachelor of Science in Chemical Engineering  
 For **DEDP** Students entering Spring Semester 2005 or later

**FIRST YEAR**

<u>Fall Semester</u>	<u>Spring Semester</u>
Math 165 Calculus I* .....4	Math 166 Calculus II* .....4
●Chem 121/121L General Chemistry I*/Lab* .....3/1	ChE 102 Introduction to Chemical Engineering .....2
Engl 110 College Composition I* .....3	●Chem 122/122L General Chemistry II*/Lab* .....3/1
Arts/Humanities GER .....3	●Phys 251/251L University Physics I*/Lab* .....3/1
Social Science GER .....3	Arts/Humanities GER .....3
Semester Total ..... 17	Semester Total ..... 17

**SECOND YEAR**

Math 265 Calculus III* .....4	Math 266 Elementary Differential Equations .....3
ChE 201 Stoichiometry* .....3	●Phys 252/252L University Physics II*/Lab* .....3/1
●Chem 341/341L Organic Chemistry I/Lab .....4/1	◆ChE 232 Chemical Engineering Laboratory I* .....2
Engl 125 Technical and Business Writing* .....3	ChE 206 Unit Operations in Chemical Engr† .....3
OR Engl 120 College Composition II	Engr 201 Statics .....3
Econ 201 Principles of Microeconomics .....3	Advanced Chemical Science Elective .....3
Semester Total ..... 18	Semester Total ..... 18

**THIRD YEAR**

ChE 301 Transport Phenomena .....4	◆ChE 332 Chemical Engineering Laboratory III .....2
◆ChE 331 Chemical Engineering Laboratory II .....2	ChE 303 Chemical Engineering Thermodynamics. .4
ChE 333 Basic Experimental Strategies .....1	ChE 305 Separations† .....3
Chem 465 Physical Chemistry II .....3	EE 206 Circuit Analysis .....3
Engineering Science Elective .....3	Engr 460 Engineering Economy .....3
Advanced Chemical Science Elective .....3	Technical Elective II .....3
Semester Total ..... 16	Semester Total ..... 18

**FOURTH YEAR**

ChE 408 Chemical Process Dynamics .....3	ChE 412 Chemical Engr Plant Design II† .....5
ChE 411 Chemical Engr Plant Design I† .....3	Cultural Elective .....3
ChE 421 Chemical Engineering Reactor Design† .....3	Technical Elective I .....3
◆ChE 431 Chemical Engineering Laboratory IV† .....3	Social Science GER .....3
Technical Elective II .....3	
Semester Total .....15	Semester Total ..... 14

**PROGRAM TOTAL ..... 133**

\*Must be completed with grade of C or better prior to enrollment in Junior-level ChE courses.

†These courses need to be completed through UND: ChE 206, ChE 305, ChE 411, ChE 412, ChE 421, and ChE 431

● On-campus Chemistry and Physics Labs

◆ On-campus ChE Labs; completed in 3 - 1 ½ -week sessions (plus some outside work).

1. ChE 493A DEDP ChE lab 1 (3 credits) is a combination of ChE 232 and part of ChE 331.
2. ChE 493A DEDP ChE lab 2 (3 credits) is a combination of part ChE 331 and all of ChE 332.
3. ChE 431 DEDP ChE lab 4 (3 credits) is all of ChE 431.

Chem 121L/122L can be completed in the same summer. Phys 251L/252L can be completed in the same summer.  
 Chem 341 and ChE 493A ChE DEDP lab 1 can be completed in the same summer. A total of 5 summer visits.