

Articulation Agreement

University of North Dakota and Northwest College

Powell, WY

Degree: Bachelor of Science in Chemical Engineering

Major: CHEMICAL ENGINEERING

The following information was updated according to the 2013-2015 UND CATALOG - Students satisfactorily completing the courses below may transfer them to UND in fulfillment of the corresponding course requirements for this degree. Essential Studies equivalencies, courses, and major requirements may change. An official evaluation of transfer credit will be done upon admission to the university. Transfer credits will be evaluated and applied according to the current catalog and the approved Essential Studies list at the first semester of enrollment at UND.

Students planning to transfer to UND are encouraged to have phone or email contact with a UND adviser. Students may call the Advising Office at 1-800-CALL-UND ext. 3411 or 777-3411.

133 credits are required to graduate with a Chemical Engineering degree from UND.

| NWC | Course/Credits/Title | UND | Course/Credits/Title |
|--|------------------------------------|-----------------|--|
| <u>I. Communication - COM</u> | | | |
| ENGL 1010 | 3 English I: Intro to Composition | ENGL 110 | 3 College Composition I |
| ENGL 2010 | 3 Technical Writing | ENGL 130 | 3 College Comp II: Writing for Public Au |
| <u>II. Social Science - SS</u> | | | |
| Elective Credit | 9 Credit from two depts. | Elective Credit | 9 Credit from two depts. |
| <u>III. Arts and Humanities - FA/HUM</u> | | | |
| Elective Credit | 9* Credit from two depts. | Elective Credit | 9* Credit from two depts. |
| *must include 3 credits designated as Fine Arts and 3 credits designated as Humanities | | | |
| *must include 3 credits of ethics | | | |
| <u>IV. Mathematics, Science & Technology - MST</u> | | | |
| CHEM 1020 | 5 General Chemistry I (Q) | CHEM 121/L | 3/1 General Chemistry I |
| CHEM 1030 | 5 General Chemistry II(Q) | CHEM 122/L | 3/1 General Chemistry II |
| MATH 2200 | 5 Calculus I | MATH 165 | 4 Calculus I |
| MATH 2205 | 5 Calculus II | MATH 166 | 4 Calculus II |
| <u>Other Program Requirements</u> | | | |
| CHEM 2230 | 4 Quantitative Analysis | Elective Credit | 4 Advanced Chemistry Science Elective |
| CHEM 2320 | 4 Organic Chemistry I | CHEM 341 | 3/1 Organic Chemistry I/L |
| CHEM 2340 | 4 Organic Chemistry II | Elective Credit | 4 Advanced Chemistry Science Elective |
| ES 1000 | 1 Orientation to Engineering | ChE 102 | 2 Intro to Chemical Engineering |
| ES 2110 | 3 Statics | ENGR 201 | 3 Statics |
| ES 2120 | 3 Dynamics | Elective Credit | 3 Engineering Science Elective |
| ES 2210 | 4 Electrical Circuit Theory | EE 206 | 3 Circuit Analysis |
| ES 2410 | 3 Mechanics of Materials | Elective Credit | 3 Engineering Science Elective |
| MATH 2210 | 5 Calculus III | MATH 265 | 4 Calculus III |
| MATH 2310 | 3 Applied Differential Equations I | MATH 266 | 3 Differential Equations |
| PHYS 1310 | 4 College Physics I | PHYS 251/L | 4 University Physics I/L |
| PHYS 1320 | 4 College Physics II | PHYS 252/L | 4 University Physics II/L |

When choosing your Essential Studies (General Education) Courses in Communication, Social Science, Arts and Humanities, and Math, Science and Technology, you will need to consider how you will meet the special emphasis requirements. Courses listed above that meet a special emphasis requirement are marked as follows: Oral Communication requirement (O), Social-Cultural Diversity requirement: United States (U), Social-Cultural Diversity requirement: Global (G), Quantitative Reasoning requirement (Q), and Advanced Communication requirement (A). To learn more please go to <http://und.edu/academics/essential-studies> or check with your adviser.

All students-including transfers-are required to take an Essential Studies upper division Capstone (C) course at UND. Approved Capstone courses are taken in the senior year of a student's undergraduate program.

Additional classes will be required to earn the above degree; a minimum of 125 credits is required to graduate from UND. Transfer credit for courses other than those listed above will be evaluated on a course-by-course basis.