Articulation Agreement

University of North Dakota and Normandale Community College
Bloomington, MN

Degree: Bachelor of Science in Chemical Engineering
Major: CHEMICAL ENGINEERING

The following information was updated according to the 2017-2019 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 (701) 777-3411.

133 credits are required to graduate with a chemical engineering degree from UND.
*Meets elective requirements

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<th>NCC</th>
<th>Course/Credits/Title</th>
<th>UND</th>
<th>Course/Credits/Title</th>
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| I. Communication - COM
  ENGC 1101 4  Freshman Composition | ENGL 110 3  College Composition I |
  ENGC 2102 3  Business and Technical Writing | ENGL 130 3  Comp II: Writing for Public Audiences |
| II. Social Science - SS
Elective Credit 9  Credit from at least two depts. | Elective Credit 9  Credit from at least two depts. |
| III. Arts and Humanities - FA/HUM
PHIL 1103 3  Ethics | ChE 340 3  Professional Integrity in Engineering |
  Elective Credit 6*  Credit from at least two depts. | Elective Credit 6*  Credit from at least two depts. |
*must include 3 credits designated as Fine Arts and 3 credits designated as Humanities |
| IV. Mathematics, Science & Technology - MST
CHEM 1061 5  Principles of Chemistry 1 (Q) | CHEM 121/L 3/1  General Chemistry I/Lab |
  CHEM 1062 5  Principles of Chemistry 2 (Q) | CHEM 122/L 3/1  General Chemistry II/Lab |
  MATH 1510 5  Calculus 1 | MATH 165 4  Calculus I |
  MATH 1520 5  Calculus 2 | MATH 166 4  Calculus II |
| Other Program Requirements
CHEM 2061 5  Organic Chemistry 1 | CHEM 341/L 4/1  Organic Chemistry I/Lab |
  CHEM 2062 5  Organic Chemistry 2 | *CHEM 342/L 4/1  Organic Chemistry II/Lab |
  ENGR 2001 5  Circuits with Electronics I | ENGR 206 3  Fund of Electrical Engineering |
  ENGR 2331 3  Deformable Body Mechanics | *ENGR 203 3  Material Science Elective |
  MATH 2510 5  Calculus 3: Multivariate Calculus | MATH 265 4  Calculus III |
  MATH 2520 5  Calculus 4: Diff. Equations & Linear Algebra | MATH 266 3  Elementary Differential Equations |
  PHYS 1121 5  Physics with Calculus 1 | PHYS 251/L 4  University Physics I/Lab |
  PHYS 1122 5  Physics with Calculus 2 | PHYS 252/L 4  University Physics II/Lab |

A complete list of approved Essential Studies courses can be found online at http://und.edu/academics/essential-studies/approved-courses.cfm

When choosing your Essential Studies (General Education) Courses in Communication, Fine Arts and Humanities, Social Science, 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 120 credits is required to graduate from UND. A complete listing of program requirements can be found in the Academic Catalog and Four Year Plans.

Transfer credit for courses other than those listed above will be evaluated on a course-by-course basis.