

# College of Engineering & Mines Curriculum Information

## LCMC Plan for Combined B.S. in Petroleum Engineering from University of North Dakota (UND) and B.S. in Chemistry from Baker University (BU)

| FIRST YEAR FALL                   | Credits | Taken | UND Course |
|-----------------------------------|---------|-------|------------|
| CH 137/L: General Chemistry I/Lab | 4       | BU    | CHEM 121/L |
| BK 101: Baker Experience          | 1       | BU    |            |
| BC 110: Freshman Seminar I        | 3       | BU    |            |
| MA 171: Calculus I                | 4       | BU    | MATH 165   |
| Core- Foreign Language            | 4       | BU    |            |

| FIRST YEAR SPRING              | Credits | Taken | UND Course              |
|--------------------------------|---------|-------|-------------------------|
| CH 138/L: General Chemistry II | 4       | BU    | CHEM 122/L <sup>1</sup> |
| BC 120: Freshman Seminar II    | 3       | BU    |                         |
| MA 172: Calculus II            | 4       | BU    | MATH 166                |
| Core-Fine Arts                 | 3       | BU    |                         |
| ENGR 200: Comp. Apps. In Engr. | 2       | UND   |                         |

| SECOND YEAR FALL                  | Credits | Taken | UND Course        |
|-----------------------------------|---------|-------|-------------------|
| CH 251/L: Organic Chemistry I/Lab | 4       | BU    |                   |
| PC 225: General Physics I         | 4       | BU    | PHYS 251          |
| MA 372: Differential Equations    | 3       | BU    | MATH 266          |
| Core- Fine Arts                   | 3       | BU    |                   |
| GEOE 203/L: Earth Dynamics/Lab    | 4       | UND   | Note <sup>2</sup> |

| SECOND YEAR SPRING                 | Credits | Taken | UND Course        |
|------------------------------------|---------|-------|-------------------|
| CH 252/L: Organic Chemistry II/Lab | 4       | BU    |                   |
| PC 226: General Physics II         | 4       | BU    | Note <sup>3</sup> |
| MA 271: Calculus III               | 4       | BU    | MATH 265          |
| PC 381: Statics                    | 3       | BU    | ENGR 201          |
| PTRE 201: Intro to Petroleum Engr. | 3       | UND   |                   |

| THIRD YEAR FALL                     | Credits | Taken | UND Course        |
|-------------------------------------|---------|-------|-------------------|
| CH 361L: Physical Chemistry I Lab   | 1       | BU    |                   |
| PC 361: Thermodynamics              | 3       | BU    |                   |
| PC 325: General Physics III         | 4       | BU    | Note <sup>3</sup> |
| Core- Social Sciences               | 3       | BU    |                   |
| PTRE 301: Reservoir Rock Properties | 3       | UND   |                   |
| ME 306: Fluid Mechanics             | 3       | UND   |                   |

| THIRD YEAR SPRING                    | Credits | Taken | UND Course        |
|--------------------------------------|---------|-------|-------------------|
| CH 340: Analytical Chem. Methods     | 3       | BU    | Note <sup>3</sup> |
| CH 362/L: Physical Chemistry II/Lab  | 4       | BU    | Tech Elective     |
| GEOL 407: Petroleum Geology          | 3       | UND   |                   |
| ENGR 203: Mechanics of Materials     | 3       | UND   |                   |
| PTRE 311: Petroleum Fluid Properties | 3       | UND   |                   |

| FOURTH YEAR FALL                     | Credits | Taken | UND Course |
|--------------------------------------|---------|-------|------------|
| Core- Humanities                     | 3       | BU    |            |
| PTRE 401: Well Logging               | 3       | UND   |            |
| PTRE 431: Reservoir Engineering      | 3       | UND   |            |
| PTRE 411: Drilling Engineering       | 3       | UND   |            |
| PTRE 405: Petroleum Engr. Economy... | 3       | UND   |            |

| FOURTH YEAR SPRING                    | Credits | Taken | UND Course |
|---------------------------------------|---------|-------|------------|
| CH 491: Senior Seminar                | 2       | BU    |            |
| CH 341: Instrumental Analysis         | 4       | BU    |            |
| PTRE 451: Advanced Drilling Engr.     | 3       | UND   |            |
| PTRE 445: Well Testing                | 3       | UND   |            |
| Approved Technical Elective           | 3       | UND   |            |
| MATH 321: Applied Statistical Methods | 3       | UND   |            |

| <b>FIFTH YEAR FALL</b>           | Credits | Taken | UND Course |
|----------------------------------|---------|-------|------------|
| PH 120: Ethics                   | 3       | BU    | ENGR 340   |
| PTRE 421: Production Engineering | 3       | UND   |            |
| PTRE 465: Petroleum Geomechanics | 3       | UND   |            |
| PTRE 471: Numerical Reservoir... | 3       | UND   |            |
| PTRE 484: Research Design        | 3       | UND   |            |

| <b>FIFTH YEAR SPRING</b>    | Credits | Taken | UND Course |
|-----------------------------|---------|-------|------------|
| Core- Capstone              | 3       | BU    |            |
| Core- Social Science        | 3       | BU    |            |
| PTRE 475: Well Completions  | 3       | UND   |            |
| PTRE 485: Senior Design     | 3       | UND   |            |
| Approved Technical Elective | 3       | UND   |            |

| <b>SUMMER CLASSES &amp; LABS</b> | Credits | Taken           | When to Take            |
|----------------------------------|---------|-----------------|-------------------------|
| PTRE 361: Petroleum Engr. Lab I  | 1       | UND (on-campus) | After Fifth Year Spring |
| PTRE 462: Petroleum Engr. Lab II | 1       | UND (on-campus) | After Fifth Year Spring |
|                                  |         |                 |                         |
|                                  |         |                 |                         |

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| NOTES  | <sup>1</sup> CH 138L is a new course to be offered from Baker; existing CH 141 course will not have equivalency to any UND course |
|  | <sup>2</sup> Course will fulfill GEOE 210 required as listed in UND's catalog for the Petroleum Engineering major                 |
|  | <sup>3</sup> Both PC 226 and PC 325 must be completed successfully for equivalency to PHYS 252 at UND                             |
|  | <sup>4</sup> CH 340 is a new course to be offered from Baker, and will be equivalent to CHEM 333/L                                |
| <b><i>Plan created February 2023 using requirements from the 2023-2024 UND catalog</i></b> |   |