Engineering, AS (leading to UW Petroleum Engineering, BS)



| Western Wyoming Community College | | | | | | | | | | | | | |
|-----------------------------------|------|------------------------------|-------|-----------|------|------|---|-----------|-----------|--|--|--|--|
| FRESHMAN YEAR | | | | | | | | | | | | | |
| | | Fall Semester | | Hrs | | | Spring Semester | | Hrs | | | | |
| PHYS | 1310 | College Physics | | 4 | ES | 1060 | Intro to Engineering Computing * | | 3 | | | | |
| MATH | 2200 | Calculus I * | | 4 | CHEM | 1020 | General Chemistry I | | 4 | | | | |
| ENGL | 1010 | English Composition | | 3 | MATH | 2205 | Calculus II * | | 4 | | | | |
| | | US Government ² | | 3 | PHYS | 1320 | College Physics II | | 4 | | | | |
| HMDV | 1005 | First Year Success | | 1 | ES | 2110 | Statics * | | 3 | | | | |
| | | | TOTAL | <u>15</u> | | | | TOTAL | <u>18</u> | | | | |
| SOPHOMORE YEAR | | | | | | | | | | | | | |
| | | Fall Semester | | Hrs | | | Spring Semester | | Hrs | | | | |
| ES | 2120 | Dynamics * | | 3 | ES | 2310 | Thermodynamics I * | | 3 | | | | |
| ES | 2210 | Electric Circuit Analysis * | | 3 | ES | 2330 | Fluid Dynamics * | | 3 | | | | |
| ENGL | 2005 | Technical Writing | | 3 | ES | 2410 | Mechanics of Materials * | | 3 | | | | |
| COMM | 2010 | Public Speaking ³ | | 3 | MATH | 2310 | Applied Differential Equations | | 3 | | | | |
| MATH | 2210 | Calculus III * | | 4 | G&R | 1050 | Intro to Natural Resources ⁴ | | 3 | | | | |
| | | | | | HMDV | 2411 | Assessment Requirement | | 0 | | | | |
| | | | TOTAL | <u>16</u> | | | | TOTAL | <u>15</u> | | | | |
| | | | | | | | E HOURS | <u>64</u> | | | | | |

Successful completion of the 2+2 plan requires that a student remain continuously enrolled and graduate with the associate's degree from his or her respective community college. • This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the catalogs of their respective institutions and consult with their academic advisor to plan accordingly. • Academic plans and course schedules may need to be altered if ACT or Math Placement scores require a student to take pre-college courses (e.g., MATH 0900, 0921, or 0925) before taking required math or English courses.

Western Wyoming Community College requirements:

In order to graduate, students must have a cumulative grade point average of 2.00 (a "C" average) or better in all hours attempted at Western Wyoming Community College. • At least 15 credit hours must be completed through WWCC. • Generally, no courses taken from WWCC for S/U grades may be used for graduation hours. • Students may not received credit for courses which are prerequisite to course they have already completed. • A maximum of six (6) hours of studies or workshop courses may be applied toward the Associates Degree. • A maximum of four (4) hours of internship may be allowed for AA or AS degrees.

WWCC Degree Program notes:

¹ The following courses may be advisable to support student academic and career goals. They are not required, and are not replacements for the required WWCC coursework listed above. Consult with an academic advisor before taking.

- ES 1000 in order to explore career opportunities in engineering
- ES 1070 and ES 1080 in order to gain solid modeling/drafting experience
- CHEM 1030 and MATH 2250, as they can be counted towards courses in the UW Mechanical Engineering (ME) curriculum
- The US Government requirement can be fulfilled by taking HIST 1211, 1221, 1251, or POLS 1000.
- COMM 1020 will also satisfy this requirement.
- This requirement can also be fulfilled by taking ECON 1010, PSYC 1000, SOC 1000, or ANTH 1200.

Petroleum Engineering, BS



3

University of Wyoming

SUMMER SEMESTER

PETE

2050

Fundamentals of Petroleum Engineering

| | | | | | | | TOTAL | <u>3</u> | | | | |
|-------------|------|--|-----------|------|------|----------------------------------|-------|-----------|--|--|--|--|
| | | | JUNIO | R YE | AR | | | | | | | |
| | | Fall Semester | Hrs | | | Spring Semester | | Hrs | | | | |
| GEOL | 1100 | Physical Geology (fall only) | 4 | PETE | 3100 | Rock and Fluids Lab | | 2 | | | | |
| PETE | 3025 | Heat & Mass Transfer | 3 | PETE | 3200 | Reservoir Engineering | | 3 | | | | |
| PETE | 2060 | Intro to Petroleum Engineering Computing | 3 | PETE | 3265 | Drilling Fluids Laboratory | | 3 | | | | |
| PETE | 3015 | Multicomponent Thermodynamics | 3 | PETE | 3715 | Production Engineering | | 3 | | | | |
| PETE | 3255 | Basic Drilling Engineering | 3 | PETE | 3725 | Well Bore Operations | | 3 | | | | |
| | | | | PETE | 4320 | Well Log Interpretation | | 3 | | | | |
| | | TOTAL | <u>16</u> | | | | TOTAL | <u>17</u> | | | | |
| SENIOR YEAR | | | | | | | | | | | | |
| | | Fall Semester | Hrs | | | Spring Semester | | Hrs | | | | |
| PETE | 4225 | Well Test Analysis | 3 | GEOL | 4190 | Petroleum Geology | | 3 | | | | |
| PETE | 4340 | Petroleum Economics | 3 | PETE | 4736 | Petroleum Engineering Design | C3 | 4 | | | | |
| | | Technical Electives ¹ | 9 | | | Technical Electives ¹ | | 9 | | | | |
| | | TOTAL | <u>15</u> | | | | TOTAL | <u>16</u> | | | | |
| | | | | | | TOTAL UW HOURS | | | | | | |
| | | | | | | TOTAL UW BS DEGREE HOURS | | | | | | |

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U.

UW College of Engineering and Applied Science requirements:

Students must have a minimum cumulative GPA of 2.0 in all engineering courses for graduation. • A grade of C or higher is required for all prerequisite courses. • Students must also achieve a grade of C or better in MATH 2200, MATH 2205, MATH 2210, ES 2110, and ES 2120.

UW Petroleum Engineering Program notes:

Petroleum Engineering requires 48 hours of upper division credit (3000-level or above) to graduate from the program. • In addition, Petroleum Engineering degree candidates must have a GPA of 2.0 in Petroleum Engineering courses attempted at UW that are applied toward graduation for the BS degree from the department.

¹ Technical Electives must be selected with an advisor's approval. • The technical electives in the Petroleum Engineering curriculum can be used to take a concentration or a minor. • Additional information about concentrations/minors and available courses can be found in the Petroleum Engineering Academic Advising Guide, a current copy of which can be found at http://www.uwyo.edu/petroleum/undergraduate/advising%20information/ • Students may choose to take one (1) of the required technical electives at NWC. • The options at NWC are: ES 2070 (Engineering Surveying), ES 2210 (Electrical Circuit Theory), or GEOL 1200 (Historical Geology).

Transfer Credit Limit:

To graduate with a degree in Petroleum Engineering from UW, students must successfully complete at least 20 hours of required PETE courses from the University of Wyoming. • Once a student has transferred to Petroleum Engineering, s/he may take no more than 9 additional transfer credits at other institutions.