

**MEMORANDUM OF UNDERSTANDING FOR
BACHELOR OF SCIENCE IN PETROLEUM ENGINEERING
BETWEEN
NORTHWEST COLLEGE
AND
THE UNIVERSITY OF WYOMING**

- 1. Parties.** This Memorandum of Understanding (hereinafter “MOU”) is made and entered into by and between the University of Wyoming (hereinafter “University”) and Northwest College (hereinafter “Institution”).
- 2. Purpose.** This MOU provides students who have earned the associates degree in Engineering, as described below, from the Institution, the opportunity to complete a bachelors degree in Petroleum Engineering at the University. By this MOU Institution and University express a shared commitment to increasing opportunities for student access to and success in higher education.
- 3. Term.** This MOU shall commence upon the start of the 2017-18 Academic Year and shall remain in full force and effect for five years, subject to an annual review by both parties. If during the annual review, both parties agree that this MOU needs to be amended, amendments will be made to the MOU in accordance with Section (9)(A) below.
- 4. Termination.** Either party can terminate this MOU without cause, upon one (1) year prior written notice. Both parties agree that, should either party desire to terminate this MOU, students currently enrolled prior to the termination date and who remain continuously enrolled will be allowed to complete the program as articulated.
- 5. Responsibilities of the University of Wyoming:**
 - A.** Any Institution student who has earned an Associate of Science degree with coursework that adheres to the guidelines within this MOU is guaranteed that the University will:
 - i. Apply the relevant general education credits;
 - ii. Accept designated major related credits;
 - iii. Give the student University class standing consistent with the articulated curriculum herein and in a manner consistent with the University students already enrolled in the Bachelor of Science degree.
 - iv. Apply the same academic progress and graduation standards to Institution transfer students as are applicable to University students already in enrolled in the College in the same catalog year.
 - v. Provide transfer students from the Institution with access to financial aid, scholarships, and student services on a similar basis as other similarly situated University students.

B. Additional Program Specific responsibilities are outlined in Exhibit A (2 plus 2 degree plan), which is hereby incorporated into this MOU.

6. Responsibilities of Northwest College:

A. Institution, upon request of students, will provide verification of completed courses to the University through its Office of Registration and Records.

B. Additional Program Specific responsibilities are outlined in Exhibit A (2 plus 2 degree plan), which is hereby incorporated into this MOU.

7. Conditions of Transfer. Institution students maintaining continuous enrollment under this MOU and following the curriculum plan in place under the Institution's catalog of record for the year student started at the Institution will matriculate to the University academic program in place for that same catalog year. A break in enrollment that is not a summer semester may cause the student to be readmitted under a different catalog year.

8. Program Plan. While a course-by-course equivalence was used in the development of this plan, this MOU presumes that the general education core requirements at Institution meet general education requirements at the University under the statewide block transfer articulation agreement, which is hereby incorporated herein. Students falling under this MOU will be responsible for successfully completing the additional program core requirements as noted in Exhibit A (2 plus 2 degree plan), which is hereby incorporated into this MOU.

9. General Provisions

A. Amendments. Either party may request changes in this MOU. Any changes, modifications, revisions or amendments to this MOU which are mutually agreed upon shall be incorporated by written instrument, executed and signed by all parties to this MOU. Any amendments made to this MOU that impact students, will only affect students who enroll in the degree program from the date of the amendment forward.

B. Applicable Laws/Equal Employment Opportunity. Both parties shall fully adhere to all applicable local, state and federal law, including equal employment opportunity and including but not limited to compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the American with Disabilities Act of 1990. The University is committed to equal opportunity for all persons in all facets of the University's operations and is an Equal Opportunity/Affirmative Action employer. The University will provide all applicants for admissions, employment and all University employees with equal opportunity without regard to race, gender, religion, color, national origin, disability, age, protected veteran status, sexual orientation, genetic information, gender identity, creed, ancestry, political belief, any other applicable protected category, or participation in any protected activity. The University ensures non-discriminatory

practices in all matters relating to its education programs and activities and extends the same non-discriminatory practices to recruiting, hiring, training, compensation, benefits, promotions, demotions, transfers, and all other terms and conditions of employment.

C. Entirety of MOU. This MOU represents the entire and integrated MOU between the parties and supersedes all prior negotiations, representations and MOUs, whether written or oral.

D. Governmental Claims. Any actions or claims against either party under this MOU must be in accordance with and are controlled by the Wyoming Governmental Claims Act, W.S. 1-39-101 et seq. (1977) as amended.

E. Interpretation. The construction, interpretation and enforcement of this MOU shall be governed by the laws of the State of Wyoming.

F. Notices. All notices and other correspondence related to this MOU shall be in writing and shall be effective when delivered by: (i) certified mail with return receipt, (ii) hand delivery with signature or delivery receipt provided by a third party courier service (such as FedEx, UPS, etc.), (iii) fax transmission if verification of receipt is obtained, or (iv) email with return receipt, to the designated representative of the party as indicated below. A party may change its designated representative for notice purposes at any time by written notice to the other party. The initial representatives of the parties are as follows:

To University:
1000 E. University Avenue
Laramie, WY 82071

To Institution:
231 West 6th Street
Powell, WY 82435

G. Prior Approval. This MOU shall not be binding upon either party unless this MOU has been reduced to writing before performance begins as described under the terms of this MOU, and unless this MOU is approved as to form by the Office of General Counsel.

H. Severability. Should any portion of this MOU be judicially determined to be illegal or unenforceable, the remainder of the MOU shall continue in full force and effect.

I. Sovereign Immunity. Neither party waives its sovereign or governmental immunity by entering into this MOU, and fully retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this MOU.

J. Third Party Beneficiary Rights. The parties do not intend to create in any other individual or entity the status of third party beneficiary, and this MOU shall not be construed so as to create such status. The rights, duties and obligations contained in

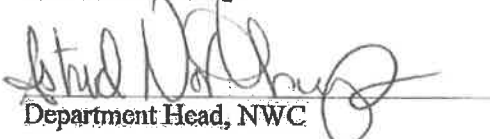
this MOU shall operate only between the parties to this MOU, and shall inure solely to the benefit of the parties to this MOU. The provisions of this MOU are intended only to assist the parties in determining and performing their obligations under this MOU. The parties to this MOU intend and expressly agree that only parties signatory to this MOU shall have any legal or equitable right to seek to enforce this MOU, to seek any remedy arising out of a party's performance or failure to perform any term or condition of this MOU, or to bring an action for the breach of this MOU.

K. Legal Authority. Each party to this MOU warrants that it possesses the legal authority to enter into this MOU and that it has taken all actions required by its regulations, procedures, bylaws, and/or applicable law to exercise that authority, and to lawfully authorize its undersigned signatory to execute this MOU and to bind it to its terms. The person(s) executing this MOU on behalf of a party warrant(s) that such person(s) have full authorization to execute this MOU.

10. Signatures. In witness whereof, the parties to this MOU through their duly authorized representatives have executed this MOU on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU as set forth herein.

RECOMMENDED BY:

Northwest College

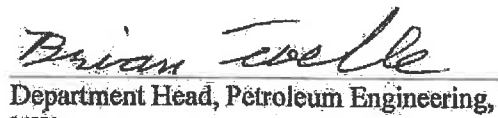

Department Head, NWC

Date: 3-26-18


Dean/Division Chair, NWC

Date: 3/24/18

University of Wyoming


Department Head, Petroleum Engineering,
UW

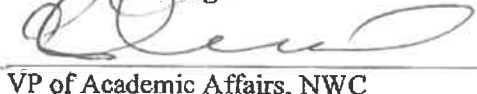
Date: 3-16-18


Dean, College of Engineering & Applied
Science, UW

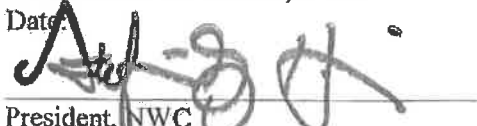
Date: 3/30/18

APPROVED BY:

Northwest College


VP of Academic Affairs, NWC

Date:


President, NWC

Date: 3/27/18

University of Wyoming


VP of Academic Affairs, UW

Date:

Northwest College-UW MOU PETOLEUM ENGINEERING

Engineering, AS

(leading to UW Petroleum Engineering, BS)



Northwest College

FRESHMAN YEAR

Fall Semester				Hrs	Spring Semester				Hrs
MATH	2200	Calculus I *		5	MATH	2205	Calculus II *		5
CHEM	1020	General Chemistry I		5	CHEM	1030	General Chemistry II		4
ES	1000	Orientation to Engineering *		1	ENGL	1010	English I: Introduction to Composition		3
ES	1060	Introduction to Engineering Computing (fall only)		3	ES	2110	Statics *		3
TOTAL				<u>14</u>	TOTAL				<u>15</u>

SUMMER SEMESTER/S

									Human Condition Electives	6
									Creativity Elective	3
TOTAL									<u>9</u>	

SOPHOMORE YEAR

Fall Semester				Hrs	Spring Semester				Hrs
CHEM	2320	Organic Chemistry I		4	CO/M	2010	Public Speaking		3
ES	2120	Dynamics * (fall only)		3	ES	2310	Thermodynamics (spring only)		3
ES	2410	Mechanics of Materials (fall only)		3	ES	2330	Fluid Dynamics/Mechanics		3
MATH	2210	Calculus III * (fall only)		4	MATH	2310	Applied Differential Equations I * (spring only)		3
PHYS	1320	College Physics II (fall only)		4	POLS	1000	American and Wyoming Government		3
TOTAL				<u>18</u>	TOTAL				<u>15</u>
TOTAL NWC AS DEGREE HOURS									<u>71</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.

Northwest College requirements:

To complete an AS degree, a minimum of 60 credit hours is required, although individual programs may have additional requirements. • Students must successfully complete core courses (denoted with an *) with a C- or better to meet program requirements.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 48 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. • The USP Communication 3 (C3) requirement must be completed with a grade of C or better.

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 all required mathematics courses.

Petroleum Engineering, BS



University of Wyoming

SUMMER SEMESTER

PETE 2050 Fundamentals of Petroleum Engineering 3

TOTAL 3

JUNIOR YEAR

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	<u>64</u>
								TOTAL UW BS HOURS	<u>135</u>

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.uwo.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.