



PLM graduates determine ownership and title of surface and subsurface rights, negotiate leases between owners and energy developers, ensure federal and state regulatory compliance in energy development, and negotiate and maintain company contractual obligations for development and the subsequent profits.

This degree requires that The University Studies Program 2015 requirements are met before graduation. Some of the courses required for this major fulfill USP requirements, but not all. Students should check their degree evaluations and consult with their assigned academic advisor to discuss their specific course plan.

Course Name	Credits	UW Course in Major	AA/AS/AB/ADN satisfies this USP
C 1-Communication 1 (COM1)	3		X
C 2-Communication 2 (COM2)	3		X
C 3-Communication 3 (COM3)	3	(Must be completed at UW)	
Q-Quantitative Reasoning (Q)	3		X
PN-Physical and Natural World (1) (PN)	3		X
PN-Physical and Natural World (2) (PN)	3		X
H-Human Culture (1) (H)	3		X
H-Human Culture (2) (H)	3		X
V-US & WY Constitution (V)	3		X
FYS or USP Elective-Any 3-credit hour of FYS or 3-credit hours of USP electives	3		X

Note: FYS courses have been paused. 3 hours from any additional USP designated courses is still required.

Professional Land Management (PLM) Core Curriculum:

Students must earn a letter grade of C or better in each course, or an S in an S/U course, and a cumulative GPA of 2.00 or better. Students will complete 120 credit hours, including 42 upper division credit hours, (30 of which must be earned at UW), for the B.S. in Energy Resource Management and Development (ERMD)

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Professional Land Management (PLM) Core Curriculum Continued:

Course Name	Credits	Casper	CWC	EWC	LCCC	NWCCD	Northwest	Western
POLS 1000-American and Wyoming Government (V)	3	X	X	X	X	X	X	X
STAT 2050 - Fundamentals of Statistics (Q)	4	X	X	X	X	X	X	X

Pick 1 course

Course Name	Credits	Casper	CWC	EWC	LCCC	NWCCD	Northwest	Western
MATH 1405-Trigonometry (Q)	3	X	X	X	X	X	X	X
OR MATH 1450-Algebra and Trigonometry (Q)	5	X				X	X	X

Professional Land Management (PLM) Core Curriculum Continued:

Course Name	Credits	
DSCI 4260-Project Management OR ERS 4900-Energy Resource Management Capstone (C3)	1-6	UW Course
ECON 1300-Oil: Business, Culture, and Power (H)	3	UW Course
ENR 1000-Energy and Society (PN)	3	UW Course
ENR 4750-ENR Law and Policy OR ENR 4890-NEPA Law and Policy and ENR 4890-Public Lands	3	UW Course
ERS 2010-Introduction to Land Management	3	UW Course
ERS/GEOL 4010-Exploration Geoscience	3	UW Course
ERS 4100-Property I	3	UW Course
ERS 4105-Property II	3	UW Course
ERS 4110-Contract Law	3	UW Course
ERS 4120-Federal Public Land Law	3	UW Course
ERS 4130-Oil and Gas and the Law of Subsurface Property	3	UW Course
ERS 4135-Advanced Energy Law (C3)	3	UW Course
ERS 4985-Seminar	1-6	UW Course
LS 2410-GIS in Surveying	3	UW Course
PETE 2050-Fundamentals of Petroleum Engineering	3	UW Course

COM2 Elective, Pick ONE:

Course Name	Credits	Casper	CWC	EWC	LCCC	NWCCD	Northwest	Western
COMM 2010-Public Speaking (C2)	3	X	X	X	X	X	X	X
ECON 2400-Economics of the Environment (C2)	3	X				X		
ENGL 2005-Writing in Technology and the Sciences (C2)	3	X					X	X
ENR 2000-Environment and Society (C2)	3	X						

Course Name	Credits	
ENR 3300-Environmental Policy, Conservation and Development in India	3	UW Course
ERS 3000 - Energy Project Outreach and Communications (Recommended) (C2)	3	UW Course
GEOL 2220 - Communicating Earth Science (C2)	3	UW Course
HP 2020 - Honors Colloquium II USP (C2)	3	UW Course

Data Analysis Elective, Pick ONE

Course Name	Credits	Casper	CWC	EWC	LCCC	NWCCD	Northwest	Western
ES 1060 - Introduction to Engineering Problem Solving	3	X			X	X	X	X
IMGT 2400 - Introduction to Information Management	3	X	X	X	X	X	X	X

Course Name	Credits	
ENR 4500 - Risk Analysis	4	UW Course
ENR/GEOL 4525 - Environmental Data Analysis	4	UW Course
GEOL 2120 - Quantitative GeoMethods (Q)	3	UW Course
GEOL 4250 - Mathematical Geosciences	3	UW Course
GIST 4211 - Advanced Remote Sensing	3	UW Course
PETE 1060 - Introduction to Petroleum Engineering Problem Solving	1	UW Course
STAT 3050 - Statistical Methods	3	UW Course
ZOO 4400 - Population Ecology	3	UW Course

Course Name	Credits	
AGEC/ENR 3750 - Natural Resource Planning and Economics	3	UW Course
ECON 4410 - Natural Resource Economics	3	UW Course
ECON/ERS 3400 - Energy Markets & Policy (Recommended)	3	UW Course

[illegible]

General Elective, 16 credits in total, 5 credits must be upper division – Continued:

Course Name	Credits	Casper	CWC	EWC	LCCC	NWCCD	Northwest	Western
NAIS 3300 - Federal Indian Law	3		X					
NAIS 4100 - Tribal Government	3		X					
PHIL 2420 - Critical Thinking (H)	3	X	X					
PLNT 1000 - Agroecology (PN)	4	Note 10	Note 10	Note 10	Note 10	Note 10	Note 10	
REWM 2000 - Principles of Rangeland Management	3	X	X	X	X	X	X	X
SOC 1000 - Sociological Principles (H)	3	X	X	X	X	X	X	X
SOIL 2010 - Introduction to Soil Science	4	X	X	X	X	X	X	

General Elective, 16 credits in total, 5 credits must be upper division – Continued:

Course Name	Credits	
AGCM 1010 - Principals of Agricultural Communications (H)	3	UW Course
AGCM 4010 - Advanced Campaign Design in Agricultural Communications	3	UW Course
AGEC 4600 - Community Economic Analysis (H)	3	UW Course
AGEC 4700 - Economics of Range Resources	3	UW Course
AGEC 4720 - Water Resource Economics	3	UW Course
BOT/RNEW 4775 - Forest Ecology	4	UW Course
CHE 2005 - Chemical Process Analysis	3	UW Course
CM 3140 - Built Environment Markets	3	UW Course
CRMJ 4990 - Special Topics	3	UW Course
DSCI 4230 - Purchasing and Supply Management	3	UW Course
DSCI 4240 - Computer Applications in Decision Sciences	3	UW Course
DSCI 4280 - Supply Chain Management	3	UW Course
ECON 4420 - Seminar: Economics for ENR	2-4	UW Course
ECON 4430 - Energy Economics	3	UW Course
EDSE 3040 - Energy and Power Technology	3	UW Course
ENR 2300 - Foundations of Sustainability (H)	3	UW Course
ENR/GEOG/GEOL 3450 - Weather and Climate	3	UW Course
ENR 3700 - Wyoming Conservation Corps Practicum	1	UW Course
ENR 3900 - Seminar in Environment and Natural Resources	1-3	UW Course
ENR/SOC 3950 - Environmental Sociology	3	UW Course
ENR 4010 - Winter Ecology: Skills of the Winter Naturalist	1	UW Course
ENR 4011 - Winter Ecology: Snowpack Science and Dynamics	1	UW Course
ENR 4012 - Winter Ecology: Wildlife and Plant Adaptations	1	UW Course
ENR/GEOG 4040 - Conservation of Natural Resources	3	UW Course
AMST/GEOG/ENR/POLS/REWM 4051 - Environmental Politics	3	UW Course
BOT/ENR/ZOO 4420 - Conservation Biology	3	UW Course
ENR 4320 - Experience of Place	3	UW Course
ENR 4560 - Conservation Entrepreneurship	3	UW Course
ENR 4600 - Community Sustainability	3	UW Course
ENR 4890 - Topics in Environment and Natural Resources	1-6	UW Course
ENR 4900 - Capstone in ENR (C3)	3	UW Course
ENR 4950 - Leadership in Natural Resources Management	2	UW Course

General Elective, 16 credits in total, 5 credits must be upper division – Continued:

Course Name	Credits	
ENR 4960 - Field Studies in:	1-6	UW Course
ENR 4970 - ENR Internship	1-6	UW Course
ERS 3010 - Air Quality Management	3	UW Course
ERS 4200 - Law and Nuclear Technology	3	UW Course
CHEM/ERS 4201 - Nuclear Fuel Cycles	3	UW Course
CHEM/ERS 4202 - Nuclear Forensics	3	UW Course
ERS/ME 4203 - Nuclear Materials	3	UW Course
ERS/ME 4204 - Nuclear Energy Physics	3	UW Course
ERS/ME 4205 - Nuclear Power Systems	3	UW Course
CE/ERS 4480 - Carbon Capture and Storage	3	UW Course
CHE/ERS 4481 - Geological Carbon Sequestration	3	UW Course
ERS 4960 - Energy Field Studies	1-3	UW Course
ERS 4970 - Internship	1-6	UW Course
ERS 4975 - Global Experience in Energy	1-6	UW Course
ERS 4990 - Topics in Energy Resource Development and Management	1-6	UW Course
ESE/ME 4460 - Solar and Geothermal Engineering	3	UW Course
ESE/ME 4470 - Wind and Ocean Energy Engineering	3	UW Course
ESS 4950 - Environmental Systems Synthesis (C3)	3	UW Course
FIN 3520 - Financial Markets	3	UW Course
GEOG 3050 - Economic Geography	3	UW Course
ESS/GEOG 3480 - Environmental Change	3	UW Course
GEOG 3550 - Natural Hazards and Society	3	UW Course
GEOG 4080 - Management of Major River Basins	3	UW Course
GEOG/GEOL 4113 - Geological Remote Sensing	4	UW Course
GEOG/GEOL 4470 - Fire Ecology	3	UW Course
GEOG 4880 - Current Topics	1-6	UW Course
GEOG 4885 - Seminar: (TOPICS)	1-3	UW Course
GEOL 1001 - Earth Science and Society	1	UW Course
GEOL 1320 - Global Sustainability: Managing Earth's Resources	4	UW Course
GEOL 2400 - Exploring the Inaccessible Earth - Geophysics and the Environment	3	UW Course
GEOL 3040 - Introduction to Groundwater	3	UW Course
GEOL 3250 - Geosciences and Computers	4	UW Course
GEOL 3500 - Global Change: A Geological Perspective	4	UW Course
GEOL 3600 - Earth and Mineral Resources (PN)	4	UW Course
GEOL 3650 - Energy for Society: Addressing the Energy Grand Challenge (PN)	4	UW Course
GEOL 4001 - Modeling the Earth System	4	UW Course
GEOL 4060 - Rocky Mountain Field Trip	1	UW Course
GEOL 4080 - Field Methods in Geology	2	UW Course
GEOL 4190 - Petroleum Geology	3	UW Course
GEOL 4191 - Methods in Petroleum Geology	3	UW Course
GIST 1001 - GIST Orientation and Portfolio	1	UW Course
GIST 3140 - Introduction to Remote Sensing	3	UW Course
GIST/PLNT/REWM 4130 - Applied Remote Sensing	3	UW Course
GIST 4410 - UAS Sensors and Platforms	1	UW Course

General Elective, 16 credits in total, 5 credits must be upper division – Continued:

Course Name	Credits	
GIST 4420 - UAS Mission Planning	1	UW Course
GIST 4430 - UAS Regulations and Safety	1	UW Course
GIST 4440 - UAS Ground School and Operations	2	UW Course
GIST 4450 - UAS Data Acquisition and Processing	3	UW Course
GIST 4790 - Special Topics in Geospatial Information Science and Technology	1-6	UW Course
GIST 4870 - Internship in Geospatial Information Science and Technology	1-12	UW Course
GIST 4950 - Undergraduate Research in Geospatial Information Science and Technology	1-6	UW Course
HIST 4535 - History of Oil	3	UW Course
LIFE 3400 - General Ecology	3	UW Course
LIFE 3410 - Introduction to Field Ecology	2	UW Course
LS 2015 - Engineering Surveying Laboratory	1	UW Course
LS 2020 - GPS for Land Surveyors	4	UW Course
LS 2100 - Records Research for Surveyors	3	UW Course
LS 2110 - Real Property Law	3	UW Course
LS 3100 - Real Property Descriptions	2	UW Course
LS 3110 - Boundary Evidence	2	UW Course
LS 3120 - Boundary Principles	2	UW Course
LS 3130 - Public Land Surveys	3	UW Course
LS 3200 - Route Surveying	3	UW Course
LS 3210 - Advanced Surveying	4	UW Course
LS 3230 - Applied Least Squares Adjustments	4	UW Course
LS 3300 - Ethics for the Professional Surveyor	1	UW Course
ME 1000 - Introduction to Mechanical Engineering	1	UW Course
ME 2065 - Introduction to Mechanical Engineering Design	2	UW Course
MGT 3420 - Organizational Behavior and Leadership	3	UW Course
MGT 4240 - Performance and Compensation	3	UW Course
MGT 4350 - Commercial Law	3	UW Course
MGT 4360 - Business Law for Entrepreneurs	3	UW Course
MGT 4370 - Employment Law	3	UW Course
MGT 4800 - Business Strategy and Policy (C3)	3	UW Course
MGT 4900 - Independent Study in Management	1-4	UW Course
MGT 4910 - Topics in Management	3	UW Course
PETE 4820 - Blockchain in Energy	3	UW Course
PETE 4860 - Energy, Environment, and Materials	3	UW Course
PLNT 3030 - Ecology of Plant Protection	3	UW Course
PLNT 4070 - Weed Science and Technology	4	UW Course
ENR/POLS 3620 - Environmental Justice	3	UW Course
AMST/ENR/GEOG/REWM 4052 - Federal Land Politics	3	UW Course
INST/POLS 4385 - Environment and Resource Conflict	3	UW Course
INST/POLS 4455 - Energy Security	3	UW Course
INST/POLS 4555 - Political Ecology	3	UW Course
ENR/REWM 3100 - Principles of Wildland Water Quality	3	UW Course
REWM 4200 - Reclamation of Drastically Disturbed Lands	3	UW Course

General Elective, 16 credits in total, 5 credits must be upper division – Continued:

Course Name	Credits	
ENR/REWM 4285 - Wildland Hydrology	4	UW Course
REWM 4330 - Rangeland Ecosystem Assessment and Monitoring	4	UW Course
REWM 4340 - Reclamation Techniques Field Trip	2	UW Course
REWM 4440 - Applied Fire Ecology	3	UW Course
REWM 4500 - Rainfall-Runoff Modeling	3	UW Course
REWM 4530 - Seminar	1	UW Course
REWM 4580 - Rangeland Restoration Ecology	3	UW Course
REWM 4600 - Drone-Based Remote Sensing	3	UW Course
REWM 4700 - Wildland Watershed Management	3	UW Course
REWM 4710 - Watershed Water Quality Management	3	UW Course
REWM 4750 - Wildlife Habitat Restoration Ecology	3	UW Course
REWM 4830 - Ecological Applications for Wildland Management	3	UW Course
REWM 4850 - Rangeland Vegetation Management Techniques	3	UW Course
REWM 4900 - Rangeland Management Planning (C3)	3	UW Course
RMAL 2040 - Quantitative Tools for Managing Agricultural Resources	3	UW Course
LEAD/RMAL 3110 - Foundations for Leadership	3	UW Course
RMAL 4700 - Elements of Leadership	3	UW Course
SELL 3310 - Professional Selling (C2)	3	UW Course
SOC 4890 - Special Topics in	1-3	UW Course
ENR/SOIL 3130 - Environmental Quality	3	UW Course
SOIL 4100 - Soil Physics	3	UW Course
SOIL 4105 - Soil Physics Laboratory	2	UW Course
SOIL 4120 - Genesis, Morphology and Classification of Soils	4	UW Course
SOIL 4130 - Chemistry of the Soil Environment	3	UW Course
MICR/SOIL 4140 - Soil Microbiology	4	UW Course
SOIL 4150 - Forest and Range Soils	3	UW Course
SOIL 4160 - Soil Health and Nutrient Cycling	3	UW Course
MICR/MOLB/SOIL 4540 - Microbial Diversity and Ecology	4	UW Course
SOIL 4565 - Research: Soil Science	1-4	UW Course
SOWK 4780 - Seminar:	1-9	UW Course
UWYO 1019 - UWYO Saddle Up (FYS)	1	UW Course

Negotiation Elective, Pick ONE

Course Name	Credits	
AGEC/ENR 4450 - Negotiation	3	UW Course
AGEC/ENR 4550 - Negotiation Analysis	3	UW Course
MGT 4470 - Negotiations and Conflict Resolution	3	UW Course
POLS 4545 - Conflict Resolution and Management	3	UW Course

Notes:

Note 1: AGECE 1020 is offered at Casper, EWC, LCCC, Sheridan and Northwest. ECON 1020 is cross listed with AGECE 1020.

Note 2: DSCI 3210 is equivalent to DSCI 2100 at UW.

Note 3: AGECE 3400 is offered at CWC.

Note 4: BADM 2010 is equivalent to MGT 2010.

Note 5: AGECE 1010 is offered at Casper, EWC, LCCC, Sheridan and Northwest. ECON 1010 is cross listed with AGECE 1010.

Note 6: Casper and Sheridan offers ECON 2400.

Note 7: In some instances, coursework completed at a Wyoming Community College(s) may be approved to satisfy upper-division course requirements within an individual program. These exceptions are considered on a case-by-case basis. Students should consult with their UW advisor regarding eligibility and next steps.

Note 8: The following courses are equivalent to MGT 2030 - BADM 2030 which is offered at Casper, LCCC, Sheridan, Northwest and Western; BADM 3210 which is offered at LCCC; MGT 3110 which is offered at CWC, Sheridan, Northwest and Western. Students may receive credit for only one equivalent course (i.e. not a lower-division and an upper-division course equivalent to the same UW course).

Note 9: MKT 2100 is offered at Casper, EWC, LCCC, Sheridan and Western. MKT 3210 is offered at CWC, LCCC, Northwest and Western and may also satisfy the requirement.

Note 10: AECL 1000 is equivalent to UW PLNT 1000.

COURSE SUBSTITUTIONS: WyoTAGs reflect published equivalencies. UW academic departments occasionally arrange for course substitutions when indirect equivalencies exist. Please contact your UW Academic Advisor for details.

EFFECTIVE DATE: This document is in effect as of the 2026-2027 catalog year; it reflects the published UW curriculum as of that date. Any changes to the UW curriculum or the WYCC course equivalents will require this document to be updated. To request an updated document, faculty should contact transfer@uwyo.edu via email.