



Board of Trustees

Committee on Academic and Student Affairs

Wednesday, May 10, 2023

3:00 PM - 5:00 PM

Marian H. Rochelle Gateway Center

Salon C

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Board of Trustees
Committee on Academic and Student Affairs
May 10, 2023
3:00 PM - 5:00 PM
Marian H. Rochelle Gateway Center-Salon C

AGENDA

1. Consideration and Action: Master List of Academic Programs (*Barrett*)
2. Consideration and Action: Name Change: Department of Visual and Literary Arts to the Department of Visual Arts (*Barrett*)
3. Consideration and Action: Request for Authorization: Master of Engineering in Energy and Petroleum Engineering (*Ahern/Rasouli*)
4. Consideration and Action: Request for Authorization: Honors Interdisciplinary Inquiry Concurrent Major (*Barrett/Parolin*)
5. Consideration and Action: Request for Authorization: MS in Nutrition and Dietetics QuickStart (4+1) (*Ahern/Keith*)
6. Consideration and Action: UW Regulation 2-13: Science and Math Teaching Center (SMTC) move to the College of Education (*Ahern*)
7. Consideration and Action: UW Regulation 2-5 (Assessing Effective Teaching) (*Evans*)
8. Consideration and Action: UW Regulation 2-7 (Procedures for Reappointment, Tenure, Promotion and Fixed-Term) (*Evans*)
9. Consideration and Action: UW Regulation 2-100 (Academic Class Management) (*Evans*)
10. Information and Discussion: Discussion with College of Arts and Sciences (*Turpen*)
11. Information and Discussion: New Degree Program Progress Report (*Carman*)

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Master List of Academic Programs, (Carman, Barrett)

- PUBLIC SESSION
- EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
- No

FOR FULL BOARD CONSIDERATION:

- Yes

[Note: If yes, materials will also be included in the full UW Board of Trustee report.]

- No

Attachments/materials are provided in advance of the meeting.

EXECUTIVE SUMMARY:

Per UW Regulation 2-119, at its annual meeting in May, the Board of Trustees shall approve the master list of Academic Programs offered by the University of Wyoming. The list may be amended by the Board at any meeting.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

University of Wyoming Regulation 2-119 requires that the Board approve the Master List of Degrees and Majors annually in May. The Academic and Student Affairs Committee will report to the Board on recommended action for approval of the master list.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Consideration for approval the Master List of Degrees and Majors.

PROPOSED MOTION:

“I move that the 2023 Master List of Academic Programs be approved for full board consideration.”

UNIVERSITY OF WYOMING
MASTER LIST OF DEGREES AND MAJORS
as authorized by the Trustees
May 2023
Prepared by the Office of Academic Affairs

By way of explanation, the degree title is listed in ***bold italics*** (for example, ***Bachelor of Arts, Bachelor of Science in Chemical Engineering***). The list of majors for a specific degree in a specific college is listed below the degree title. Information in *italics* and parentheses () following a major is explanatory data, and not part of the official major name. Majors with brackets { } require the insertion of a secondary program of study.

Proposed new Degrees and Certificates have been highlighted in green. Programs in red are listed as Inactive Admission Status. Their status will be determined at a later date, once departments are merged and curriculum is changed. Degrees and Certificates proposed to be deleted from previous Master Lists are highlighted in yellow and crossed out. The proposed deletions are programs that were duplicated in other departments or that UW has simply ceased to offer over time and all eliminated programs have gone through the process as outlined in the University regulations for eliminating programs. As such, the Master List of Degrees and Majors has been corrected to reflect current offerings.

COLLEGE OF AGRICULTURE, LIFE SCIENCES, and NATURAL RESOURCES (ALSNR)

Bachelor of Science

Agricultural Business

Agricultural Communications

Animal and Veterinary Science

Biology (moves to ALSNR July 1, 2023)

Botany (moves to ALSNR July 1, 2023)

Design, Merchandising and Textiles (former option within BSFC)

Human Development and Family Sciences (former option within BSFC)

Human Nutrition and Food (former option within BSFC)

Microbiology

Molecular Biology

Physiology (moves to ALSNR July 1, 2023)

Plant Production and Protection

Rangeland Ecology and Watershed Management

Wildlife and Fisheries Biology and Management (*professional*)

(moves to ALSNR July 1, 2023)

Zoology (moves to ALSNR July 1, 2023)

~~*Bachelor of Science in Family and Consumer Sciences*~~

Master of Arts

Molecular Biology

Master of Science

Agricultural and Applied Economics

Animal and Veterinary Science

Botany (moves to ALSNR July 1, 2023)

Entomology

Family and Consumer Sciences

Food Science and Human Nutrition (*interdisciplinary*)

Molecular Biology@

@ = Molecular Biology is listed under both the Master of Science and Master of Arts categories, but is only counted as one master's program

COLLEGE OF AGRICULTURE, LIFE SCIENCES, and NATURAL RESOURCES (ALSNR)

(cont.)

Master of Science (cont.)

Nutrition and Dietetics, BS/MS Quickstart 4+1 (for BOT consideration May 2023)

Plant Sciences

Rangeland Ecology and Watershed Management

Soil Science

Zoology and Physiology (moves to ALSNR July 1, 2023)

Doctor of Philosophy

Animal and Veterinary Science

Botany (moves to ALSNR July 1, 2023)

Entomology

Molecular Biology

Plant Sciences

Rangeland Ecology and Watershed Management

Soil Sciences

Zoology and Physiology (moves to ALSNR July 1, 2023)

COLLEGE OF ARTS and SCIENCES

Bachelor of Arts

African American and Diaspora Studies

American Studies

Anthropology

Art Education

Art History

Communication

Criminal Justice

English

French

Gender and Women's Studies

German

History

International Studies

Journalism

Music

Native American and Indigenous Studies

Philosophy

Political Science

Religious Studies

Sociology

Spanish

Studio Art

Theatre and Dance

Bachelor of Fine Arts

Studio Art[#]

Theatre and Dance[#]

Visual Communication Design

= This major counted under a previously listed undergraduate degree in the College of Arts and Sciences.

COLLEGE OF ARTS and SCIENCES (cont.)

Bachelor of Music

Jazz Performance
Music Education
Music Performance

Bachelor of Science

Communication#
Political Science#
Psychology

Master of Arts

American Studies (*interdisciplinary*)
Anthropology
Communication
English
History
International Studies (*interdisciplinary*)
Philosophy
Political Science
Sociology
Spanish

Master of Fine Arts in Creative Writing

Master of Music

Master of Music Education

Master of Music Performance

Master of Public Administration

Master of Science

Psychology

Doctor of Philosophy

Anthropology
Psychology

= This major counted under a previously listed undergraduate degree in the College of Arts and Sciences.

COLLEGE OF BUSINESS

Bachelor of Science in Business

Accounting
Business Economics
Entrepreneurship
Finance
Management
Marketing
Professional Selling

Bachelor of Science in Economics

Master of Business Administration

Business Administration
Business Administration – Executive[^]

Master of Science

Accounting
Economics
Finance

Doctor of Philosophy

Economics
Management and Marketing

[^] = This listing not counted as a separate major

COLLEGE OF EDUCATION

Bachelor of Applied Science

Major: Career and Technical Education

Bachelor of Arts

Major: Elementary Education
Major: Elementary and Special Education (K-12)
Major: Secondary Education
Areas of Concentration:

English Education with concurrent major in English*
Mathematics Education with concurrent major in Mathematics*
Modern Languages Education with concurrent majors in French, German or Spanish*
Science Education with concurrent majors in Biology, Chemistry, Physics, or Earth Science. Earth Science majors choose concurrent majors in Geology or Environmental Systems Science*
Social Studies Education with concurrent majors in History or Political Science*

Bachelor of Science

Major: Agricultural Education with concurrent majors in Animal and Veterinary Science, Agricultural Business or Agricultural Communication

* = This is not a separate major and is considered a concentration within that major (ex. Master of Arts with a concentration in Curriculum & Instruction or a Doctor of Philosophy with a concentration in Curriculum Studies)

COLLEGE OF EDUCATION (cont.)

Master of Arts

Major: Education

Areas of Concentration:

Curriculum & Instruction*

Educational Leadership*

Higher Education Administration*

Literacy Education*

Special Education*

Master of Science

Major: Counseling

Areas of Concentration:

Mental Health Counseling*

School Counseling*

Major: Education[&]

Areas of Concentration:

Instructional Technology*

Learning Design & Technology*

Major: Natural Science (interdisciplinary)

Master of Science in Teaching

Major: Natural Science (interdisciplinary)[&]

(Moving to the College of Education July 1, 2023 pending Board of Trustees approval.)

Doctor of Education

Major: Education

Areas of Concentration:

Curriculum & Instruction*

Educational Administration*

Educational Leadership*

Learning Design & Technology*

Mathematics Education*

Doctor of Philosophy

Major: Counselor Education and Supervision

Major: Curriculum and Instruction

Areas of Concentration:

Curriculum Studies*

Literacy Education*

Mathematics Education*

Science Education*

Major: Education[&]

Area of Concentration:

Adult & Post Secondary Education*

Higher Education Administration*

Instructional Technology*

Learning Design & Technology*

Literacy Education*

Mathematics Education*

Science Education*

* = This is not a separate major and is considered a concentration within that major (ex. Master of Arts with a concentration in Curriculum & Instruction or a Doctor of Philosophy with a concentration in Curriculum Studies)

& = This major counted under a previously listed graduate degree in the College of Education.

COLLEGE OF ENGINEERING AND PHYSICAL SCIENCES (CEPS)

Bachelor of Arts

Chemistry (moves to CEPS July 1, 2023)
Geology and Earth Sciences (moves to CEPS July 1, 2023)
Mathematics (moved to CEPS July 1, 2022)
Physics (moves to CEPS July 1, 2023)
Statistics (moved to CEPS July 1, 2022)

Bachelor of Science

Astronomy/Astrophysics (moves to CEPS July 1, 2023)
Chemistry (moves to CEPS July 1, 2023)[%]
Chemistry (ACS approved) (moves to CEPS July 1, 2023)[^]
Environmental Geology/Geohydrology (moves to CEPS July 1, 2023)
Geography (moves to CEPS July 1, 2023)
Geology (moves to CEPS July 1, 2023)

Geospatial Information Science and Technology (School of Computing)

Mathematics (moved to CEPS, July 1, 2022)[%]
Physics (moves to CEPS July 1, 2023)[%]
Statistics (moved to CEPS, July 1, 2022)[%]

Bachelor of Science in Architectural Engineering

Bachelor of Science in Chemical Engineering

Bachelor of Science in Civil Engineering

Bachelor of Science in Computer Engineering

Bachelor of Science in Computer Science

Bachelor of Science in Construction Management

Bachelor of Science in Electrical Engineering

Bachelor of Science in Energy Systems Engineering

Bachelor of Science in Mechanical Engineering

Bachelor of Science in Petroleum Engineering

Master of Arts

Mathematics (moved to CEPS, July 1, 2022)

Master of Arts in Teaching

Mathematics (moved to CEPS, July 1, 2022)[&]

Master of Science in Teaching

Mathematics (moved to CEPS, July 1, 2022) [&]

Physics (moves to CEPS July 1, 2023) [&]

Master of Science

Architectural Engineering
Atmospheric Science
Chemical Engineering
Chemistry (moves to CEPS July 1, 2023)
Civil Engineering
Computer Science
Electrical Engineering
Environmental Engineering
Geology (moves to CEPS July 1, 2023)
Geophysics (moves to CEPS July 1, 2023)

[^] = This listing not counted as a separate major

[&] = This major counted under a previously listed graduate degree in the College of Engineering and Physical Sciences.

[%] = This major counted under a previously listed undergraduate degree in the College of Engineering and Physical Sciences.

! = The School of Computing is incubating in the College of Engineering and Physical Sciences.

COLLEGE OF ENGINEERING AND PHYSICAL SCIENCES (CEPS) (cont.)

Master of Science(cont.)

Geospatial Information Science and Technology (School of Computing)

Mathematics (moved to CEPS, July 1, 2022)[&]

Mechanical Engineering

Petroleum Engineering

Physics (moves to CEPS July 1, 2023)

Statistics (moved to CEPS, July 1, 2022)

Doctor of Philosophy

Atmospheric Science

Chemical Engineering

Chemistry (moves to CEPS July 1, 2023)

Civil Engineering

Computer Science

Electrical Engineering

Geology (moves (moves to CEPS July 1, 2023)

Geophysics (moves to CEPS July 1, 2023)

Mathematics (moved to CEPS, July 1, 2022)

Mechanical Engineering

Petroleum Engineering

Physics (moves to CEPS July 1, 2023)

& = This major counted under a previously listed graduate degree in the College of Engineering and Physical Sciences.

! = The School of Computing is incubating in the College of Engineering and Applied Science

COLLEGE OF HEALTH SCIENCES

Bachelor of Science

Kinesiology and Health Promotion

Medical Laboratory Science

Physical Education Teaching

Speech, Language and Hearing Sciences

Bachelor of Science in Dental Hygiene

Bachelor of Science in Nursing

Bachelor of Social Work

Master of Science

Health Services Administration

Kinesiology and Health

Nursing

Speech-Language Pathology

Master of Social Work

Doctor of Nursing Practice

Doctor of Pharmacy

COLLEGE OF LAW

Juris Doctor

HAUB SCHOOL OF ENVIRONMENT and NATURAL RESOURCES

Bachelor of Science

Environment and Natural Resources/ {affiliated major}

Environmental Systems Science

Outdoor Recreation & Tourism Management

Master of Science

Environment, Natural Resources and Society

HONORS COLLEGE

Bachelors in Honors Interdisciplinary Arts and Science (for BOT consideration May 2023)

SCHOOL OF ENERGY RESOURCES

Bachelor of Science

Energy Resource Management and Development

Energy and Environmental Systems^s

Professional Land Management ^s

^s = This is not a separate major and is considered a concentration within that major (ex. Bachelor of Science with a concentration in Energy and Environmental Systems or Bachelor of Science with a concentration in Professional Land Management)

CROSS-COLLEGE INTERDISCIPLINARY GRADUATE DEGREES

Juris Doctor/Master of Arts in Environment and Natural Resources #

Juris Doctor/Master of Public Administration #

= This listing not counted as a separate major

ACADEMIC AFFAIRS

Bachelor of General Studies

Master of Science

Agricultural and Applied Economics/Water Resources ^
Biomedical Sciences
Botany/Water Resources ^
Civil Engineering/Water Resources ^
Economics/Water Resources ^
Geology/Water Resources ^
Rangeland Ecology and Watershed Management/Water Resources ^
Soil Science/Water Resources ^
Zoology and Physiology/Water Resources ^

Master of {affiliated degree}/Environment and Natural Resources ^

Doctor of Philosophy

Biomedical Sciences
Ecology and Evolution
Hydrologic Science
Molecular and Cellular Life Sciences
Neuroscience

^ = This listing not counted as a separate major

UW CASPER

Bachelor of Applied Science

Organizational Leadership
Health Services Administration

**Aggregate list of certificates offered at UW
May 2023**

Graduate Certificates

Community and Public Health
Community College Leadership
Early Childhood Special Education (birth to five)
Energy Business
English as a Second Language Endorsement and Certificate
Financial Planning
Geographic Information Science (GIS)
Literacy Certificate/Wyoming Reading Endorsement
Music Performance
Online Instruction Certificate
Certificate in Play Therapy
Reclamation and Restoration Ecology
Remote Sensing
School District Superintendent
School Principalship
School Social Work
Teachers of American Indian Children
Teaching Elementary School
Teaching Middle School Math
Teaching Middle School Science
Teaching Secondary Content
Unmanned Aerial Systems (drones)

Undergraduate Certificates

American Sign Language
American Studies
Art Entrepreneurship Certificate
Audio Technology Certificate
Cadastral Surveying
Carbon Capture Utilization and Storage (CCUS)
Computer Science Education
Construction Management
Cybersecurity
Early Childhood Program Director
Geographic Information Science (GIS)
Land Administration Undergraduate Certificate
Music Audio Technology Certificate
Music Entrepreneurship Certificate
Remote Sensing

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Department Name Change-Department of Visual Arts (Russell, Barrett)

- PUBLIC SESSION
- EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
- No

FOR FULL BOARD CONSIDERATION:

- Yes
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
- No

Attachments/materials are provided in advance of the meeting.

EXECUTIVE SUMMARY:

The University of Wyoming conducted a 2-13 review of the status and location of the Creative Writing MFA Program. The result was the mandate to move Creative Writing out of the Department of Visual and Literary Arts and to the Department of English. The benefits and improvements for degree programs, students, and faculty are in the Provost's final recommendations for this academic unit change.

Because Creative Writing is moving out of the Department of Visual and Literary Arts – a new name for the remaining department is required that removes “literary arts” is required. The new name will be Department of Visual Arts. The plural in this name is important helps to describe how we are not just one area or focus (we currently have five majors in art, design, art history, and art education.)

The Creative Writing MFA Program will no longer reside in the Department of Visual and Literary Arts starting July 1, 2023. Therefore, the new name for our department (Visual Arts) should be implemented on July 1, 2023.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

A change in program and degree requires Board of Trustees approval.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Recommend approval of the proposed department name change to Department of Visual Arts.

PROPOSED MOTION:

“I move to approve the department name change to Department of Visual Arts.”



**Existing College, Department, Degree Program Change Request
Title Change, Degree Designation, or CIP Change**

Directions: Complete this form and proposal template to request a change to the title (name) of an existing college, department, or degree program or to request a change to the Classification of Instructional Programs (CIP) code of an existing degree program. The degree program must already be on an institution's program inventory.

- A degree program title consists of the following two parts:
 1. Degree designation, such as Bachelor of Science (BS), Master of Arts (MA), or Doctor of Philosophy (PhD); and,
 2. name of the discipline, such as History, Mechanical Engineering, or Zoology.
- The Classification of Instructional Programs (CIP) is the taxonomic coding scheme used for instructional programs in higher education. Its purpose is to facilitate the organization, collection, and reporting of fields of study and program completions. The academic unit should consult with the Office of the Registrar and Office of Institutional Analysis prior to submitting the proposal to determine whether a change to the CIP code used to classify the program is recommended. For more information, visit [CIP Code Information](#).

Process:

1. Faculty of the unit develop a rationale for the change.
2. The dean of the academic unit approves the rationale and change and submits the proposal to the Provost.
3. The Provost routes the proposal to the Faculty Senate for consideration by the Graduate Council or Academic Planning Committee.
4. The Provost approves the rationale and change.
5. The Provost reports the proposal to the Academic and Student Affairs Committee of the Board of Trustees.
6. The Board's Academic and Student Affairs Committee recommends the change to the full Board of Trustees for consideration and action.
7. The proposers hold an implementation meeting with the Registrar, Admissions, OIA, and Advising Managers, and other appropriate units to implement the change. Implementation meetings gather people from all of the units that will take part in ensuring a new or restructured academic program runs smoothly.

Request for a change to the title (name) of an existing college, department, or program

Guidance: Name and identity are closely related. A “brand” as represented by the name has value and so careful planning for a name or designation change is a worthwhile investment. Academic entities with a long history and many alumni and past employees may find that these groups express strong attachment to the existing name. Thus, the rationale for the name change should be made with full consideration for the impact on the historic connections and with a view to the long-term future. New names should be designed to reflect the nature of the entity for many years to come. Ideally, consultation with and support from the entity’s students in course and alumni should be evident in the proposal.

The academic entity should also demonstrate that they have consulted with other colleges and departments on campus that may be impacted by the change. Additionally, they should demonstrate they have discussed the change with their Wyoming community college colleagues.

Names that narrow the scope or reflect short-term sub-areas or trends in research tools or methodology should be avoided. Proposals should be explicit about all the academic programs and structures that are included in a name change request. For example, list all departments, majors, degrees, certificates, centers, subject listings, minors or other academic elements that are included in the request.

Some common justifications for a change in name or CIP code are that the new name more accurately reflects the academic entity than the old name; that the activities of the faculty and the training they offer are more accurately reflected by the new name; and that the name of the discipline has changed and consequently the major should be renamed to reflect this change in the discipline.

Administrative Information

Complete all info in this box, and then complete the appropriate request on p. 4 or 5

1. Proposing Unit: **Department of Visual and Literary Arts**

2. Current College, Department, or Degree Program Title – *Current official name of the college, department, or degree program (e.g., College of Business, Department of Botany, Bachelor of Business Administration degree with a major in Accounting, etc.):* **Department of Visual and Literary Arts**

3. If Degree Program change, Current Degree Program CIP Code: **N/A**

4. Contact Person: *Provide contact information for the person who can answer specific questions about the degree program and change proposal.*

Name: **Doug Russell**

Title: **Department Head, Visual and Literary Arts – Professor of Art, Drawing**

E-mail: **drussell@uwyo.edu**

Phone: **307-766-3269**

Request for Change in College, Department, Degree Program Designation

Current Designation: **Visual and Literary Arts**

Proposed Designation: **Visual Arts**

Proposed Implementation Date (MM/DD/YYYY): **July 1, 2023**

Reason for Change:

- *Background: An overview explanation of why the change(s) is being requested; how will it improve the college, department, or degree program and benefit students and faculty?*
- *Proposed changes: List the specific rationale for that change.*
- *Logistics: When is the changed proposed to be effective. How will current students in the entity be handled? (Note: Generally, program changes are effective for the subsequent fall semester. Current students are assumed to be required to complete the requirements in place when they entered the program unless otherwise agreed upon by the student and program.)*
- **Background:** The University of Wyoming conducted a 2-13 review of the status and location of the Creative Writing MFA Program. The result was the mandate to move Creative Writing out of the Department of Visual and Literary Arts and to the Department of English. The benefits and improvements for degree programs, students, and faculty are in the Provost's final recommendations for this academic unit change.
- **Proposed changes:** Because Creative Writing is moving out of the Department of Visual and Literary Arts – a new name for the remaining department is required that removes “literary arts” is required. The new name will be Department of Visual Arts. The plural in this name is important helps to describe how we are not just one area or focus (we currently have five majors in art, design, art history, and art education.)
- **Logistics:** The Creative Writing MFA Program will no longer reside in the Department of Visual and Literary Arts starting July 1, 2023. Therefore the new name for our department (Visual Arts) should be implemented on July 1, 2023.

Request Change in CIP Code

Current Code:

Proposed Code:

Implementation Date (MM/DD/YYYY):

Reason for Change:

- Background: An overview explanation of why the change(s) is being requested; how will it improve the degree program and benefit students and faculty?
- Proposed changes: List each program for which you are requesting the CIP code change and the specific rationale for that change.
- Logistics: When is the changed proposed to be effective? How will current students in the program be handled? (Note: Generally, changes are effective for the subsequent fall semester. Current students are assumed to be required to complete the requirements in place when they entered the program unless otherwise agreed upon by the student and program.)

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Master of Engineering in Energy and Petroleum Engineering,
Ahern/Rasouli

- PUBLIC SESSION
 EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
 No

FOR FULL BOARD CONSIDERATION:

- Yes
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
 No

- Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

The new course-based MEng degree in Energy and Petroleum Engineering is consistent with the Department's new vision in broadening its energy offering and aims to attract and retain a wider, more diverse pool of applicants. All students who join the program are expected to pay the tuition and fees. The program will be delivered primarily on campus, but with a DED option. This is a course-based degree, where students need to complete 30 credits (10 courses of 3 credits each) to graduate. Students shall select five (5) specialized courses from a list of core courses defined for each discipline and the remaining courses can be taken as technical electives. The wide range of energy-related elective courses available across campus enhances the interdisciplinary nature of this new degree program.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

University of Wyoming Regulation 2-119 requires that the Board approve all new degree programs and lays out the process for that approval. The Academic and Student Affairs Committee will report to the Board on recommended action for approval of the new degree program.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Consideration for approval of the Request for Authorization for the Master of Engineering in Energy and Petroleum Engineering.

PROPOSED MOTION:

"I move that the Request for Authorization for the Master of Engineering in Energy and Petroleum Engineering be approved for full board consideration."

UNIVERSITY OF WYOMING

Office of Academic Affairs

1000 E. University Avenue
Dept. 3302, 312 Old Main
Laramie, WY 82071
307.766.4286 • fax: 307.766.2606

April 26, 2023

Board of Trustees:

This letter serves as a Letter of Commitment for a new Master of Engineering (MEng) degree in Energy & Petroleum Engineering to be offered by the Department of Energy & Petroleum Engineering, College of Engineering and Physical Sciences. The MEng program is different from the current Master of Science (plan B) program in Petroleum Engineering as it has a broad Energy focus that is in line with the energy transition and uses advanced technological and modern computational tools that are highly sought after by the industry. Thus, the degree program will prepare more qualified petroleum and energy engineers for employment in Wyoming and the country and attract working professionals from various backgrounds with the program's quick pace and flexible delivery.

Needs

Energy and Petroleum engineering is of critical importance to the state's stakeholders in the oil and gas and energy industries, as the major economic drivers of the state. Educating qualified engineers who can serve this industry in the future will support the economic growth of the state and help it to remain as one of the major energy suppliers in the country. Demand for qualified petroleum engineers remains high, while the availability of such professionals remains low. Innovative programs, such as the Master of Engineering in Energy & Petroleum Engineering, are needed to accommodate and attract students to meet industry demand. Furthermore, petroleum engineers are highly paid (median = \$130,850; U.S. Bureau of Labor Statistics).

Requirements

The 30 credit hours are required for this MEng degree. As a non-thesis program, all credit hours are earned via coursework (typically, 10 3-credit-hour courses). In addition to core classes, students can specialize in four areas: Energy, Advanced Drilling, Data Analytics, and Blockchain Technology. As employer and student needs change, the program will offer new specializations while sunsetting any that are no longer needed.

Resources

No additional faculty, administrators, or staff are needed to deliver this new MEng degree program as the program will generate sufficient revenue to cover its expenses and grow, as needed. MEng students will be self-funded, and no graduate assistantships will be needed to fund these students. The College of Engineering and Physical Sciences will return its portion of the funds generated by this program to the Department of Energy & Petroleum Engineering to cover the expenses of course delivery and associated student and staff salaries.

Timeline

The present implementation timeline is designed to enable students to enroll in this certificate program in the Fall 2023.

Campus Review

I affirm that the university community, including the Executive Team, Deans and Directors, Faculty Senate, Staff Senate and ASUW, have been provided the opportunity to review and present feedback on the proposed degree program.

Respectfully,



Kevin R. Carman
Provost and Executive Vice President

April 1st, 2023

TO: James Ahern, AVP For Graduate Education
FROM: Kam Ng, Graduate Council Chair
SUBJECT: Feasibility Study for the MEng in Energy and Petroleum Engineering

The University of Wyoming Graduate Council completed its review of the feasibility study for the MEng in Energy and Petroleum Engineering on March 22, 2023. The Graduate Council subsequently requested the clarification and statement on the admission criteria. Dr. Vamegh Rasouli, Head of the Energy and Petroleum Engineering Department, submitted a revised proposal including the admission criteria to the Graduate Council on March 23, 2023. An electronic vote was subsequently completed by 5 pm of Friday, March 31, 2023. The members of the Graduate Council collectively support the proposal. Twelve members of the Graduate Council voted – with two members voted against and no vote received from one member – in favor of the proposed MEng in Energy and Petroleum Engineering. If the Graduate Council can be of further service in this matter, please feel free to correspond with me accordingly.

Sincerely,

A handwritten signature in black ink, appearing to read "Kam Ng" with a stylized flourish at the end.

Kam Ng, Ph.D., P.E.
Provost Term Professorship Associate Professor
Department of Civil and Architectural Engineering and Construction Management
UW Graduate Council Chair, AY 2022-2023

MASTER OF ENGINEERING IN ENERGY AND PETROLEUM ENGINEERING

FEASIBILITY STUDY



CONTACTS:

Cameron Wright, Dean
Vamegh Rasouli, Head
Lamia Goual, Graduate Coordinator



UNIVERSITY
OF WYOMING

College of Engineering and
Physical Sciences
**Energy and Petroleum
Engineering**

Executive Summary

Degree Title

Master of Engineering (MEng) in Energy and Petroleum Engineering

Level of Degree

Graduate

Delivery Mode

On campus as well as Distance Education Delivery (DED), synchronous and asynchronous

Admission Criteria

2.5 GPA requirement using the Professional Experience Track for those applicants who meet that criterion (i.e., at least two years of post-baccalaureate professional experience), and for those who don't have that experience a 3.0 GPA would be required.

Estimated Startup Cost of Degree

We do not anticipate the need for any startup funding to begin offering this degree. Some of the existing courses in the Petroleum Engineering MS program will be shared with the MEng program. The courses, however, will be recorded for distance delivery beginning Fall 2023. The revenues generated from the delivery of this new degree will be used to provide seed funding to the faculty to develop new courses as part of this degree curriculum and to hire additional for administrative support and graduate teaching assistants. With strong financial support from corporate partners and industry, we also anticipate that some of the courses will be presented by well-known experts in the areas of oil and gas and energy free of charge and with permission to use their course material in future semesters. Ongoing costs have already been recouped via revenue from offering the individual graduate courses that would compose this proposed degree. According to our projections and strong demand evidence, including the early survey data we have collected, this MEng degree will be a net revenue generator for the University, due to its unique and innovative features.

Anticipated Launch Date

Fall 2023

Demand

The dynamic nature of the oil and gas industry and rapid change of technologies in exploration, development, and production, as well as the shift of the industry to new sources of energy, including geothermal and hydrogen, requires continuous revision and updates in the curricula of Petroleum Engineering and Energy programs. The proposed MEng program, with an initial four specialization options in energy-related disciplines (Energy, Advanced Drilling, Data Analytics, Blockchain) is a direct response to the high demand of the Energy and Petroleum industry worldwide to employ graduates with these skills. New specialization options will be added later as the industry interests change. While there are some online programs currently offered by other universities in the US, none present the unique features of this proposed degree, including its specialization options, flexibility, distance delivery, and admission of students from a wide range of backgrounds. Thus, we are confident that the proposed degree will attract many applicants from all around the world and our initial surveys prove this claim.

Description

The new course-based MEng degree in Energy and Petroleum Engineering is consistent with the Department's new vision in broadening its energy offering and aims to attract and retain a wider, more diverse pool of applicants. All students who join the program are expected to pay the tuition and fees. The program will be delivered primarily on campus, but with a DED option. This is a course-based degree, where students need to complete 30 credits (10 courses of 3 credits each) to graduate. Students shall select five (5) specialized courses from a list of core courses defined for each discipline and the remaining courses can be taken as technical

electives. The wide range of energy-related elective courses available across campus enhances the interdisciplinary nature of this new degree program.

Students can join the lectures, homework assignments, and tutorial sessions in person or remotely (synchronously or asynchronously). For the class projects, the on campus and distance students will form mixed groups and the exams will run at the same time for both on campus and distance students.

The current faculty in the Department of Energy and Petroleum Engineering (DEPE) have diverse backgrounds and expertise in multiple aspects of subsurface resource exploitation, with applications in the following four specialized energy-related disciplines including, but not limited to:

1. Energy Engineering
2. Advanced Drilling Engineering
3. Data Analytics
4. Blockchain Technology

The MEng degree will offer courses related to the above four specialization areas, based on the current expertise of the faculty and the industry needs. The recorded material can be used in the future, with minimal effort from the faculty for preparation and delivery, but more focus on projects and homework sessions, similar to flipped classrooms which shift instruction to a learner-centered model. New specialization options will be offered in the future as the industry direction shifts and the expertise of the EPE faculty varies.

Students with a bachelor's degree in petroleum engineering will select courses based on their interest to receive the MEng degree in Energy and Petroleum Engineering with a focus in any of the above specialized disciplines. Those with other engineering or related backgrounds will be required to take fundamental courses in petroleum engineering, designed for graduate-level students, in addition to courses in their specific fields of interest. The DED option of the program is expected to attract industry professionals due to the flexibility it offers and the opportunity to learn high-demand skills that have an expected positive return on their career outcomes.

The program of study (POS) will be defined during the first semester based on the background and interest of the student. Students can transfer up to 15 credits of graduate courses (non-degree awarded) from other programs with approval of their advisor and graduate committee. The expected duration of this program is 1-2 years. The curriculum will be designed to provide the students with hands-on, practical knowledge required to join the energy and petroleum industry workforce upon completion of the degree.

Learning Outcomes

The detailed learning outcomes, for each of the four specialization options are listed in Tables 2 - 5, respectively. However, the overall learning outcomes of the program can be summarized as the following:

Students will:

1. Improve soft skills, including communication, teamwork, collaboration efforts and promote diversity and inclusion through the class interactions.
2. Become knowledgeable in energy theories and clean energy production and storage technologies.
3. Build a critical thinking approach to modern well design and well control.
4. Develop effective written, oral, and digital communication skills to improve management and leadership skills.
5. Evaluate a given business or engineering problem in the current industry for the viability of data-driven solutions.
6. Apply the data mining pipeline process in a methodical fashion and identify the appropriate modeling techniques.
7. Become knowledgeable of blockchain development history, various blockchain platforms, digital assets, and cryptocurrencies

Feasibility Study for Master of Engineering in

Energy and Petroleum Engineering

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Overview and Description of Degree, Purpose, Strategic Plan Overlay

Objectives

The main objectives of the proposed MEng degree in EPE are to:

1. Provide more qualified Petroleum and Energy Engineers to the State of Wyoming and the country; and offset the huge decline in undergraduate enrollment in current Petroleum Engineering programs.
2. Attract engineers and scientists from various backgrounds to a quick pace program, beyond Petroleum Engineering, that can be completed in as little as one year as a path to learn fundamentals and practical applications in energy fields.
3. Extend the opportunity for industry professionals to learn high-demand skills that have an expected positive return on their career development. Such students can strengthen the learning outcomes of this program by sharing real case studies.
4. Provide the opportunity for current UW undergraduate students to consider this MEng program, as a Quick Start graduate degree.
5. Allow underperforming PhD students who already hold an MS degree in Petroleum Engineering to switch to the MEng program and graduate from our department.
6. Offer students the option to enroll in single or multiple courses from different specializations, similar to industry short courses. However, the courses offered under this program are more thorough, less costly, and count towards a degree if the students complete all the course requirements for the degree program.
7. Offer multiple specialization options under the same program to avoid creating many new degrees. This unique program will be a great revenue generation path for the University.
8. Expand the inter-departmental collaborations with different Colleges and Schools in order to jointly offer courses under the different specialization options, for example, Data Analytics and Blockchain.

Fit with current offerings

Currently, the DEPE offers one MS degree in Petroleum Engineering with two completion options: Plan A (with an original research component) and Plan B (mainly course-based). MS students take fundamental and applied PETE courses related to mineral resource exploration, extraction, and production. However, the number of courses in a given specialized area are currently very limited. For instance, there is only one advanced drilling course in the curriculum despite the high industry demand and the presence of state-of-the-art drilling facilities. Recently, DEPE faculty have started offering broader, energy-related courses as electives. However, most of those courses are done as special topics courses, with content that can vary from one semester to another. There is a need for a more structured degree program in DEPE, with more in-depth, specialized courses and focus areas that can be offered in a consistent and continuous manner.

In addition to PETE courses, we anticipate incorporating relevant courses from other departments and colleges to widen the range of offerings under this degree and promote collaborations across campus. For example, the Center for Blockchain and Digital Innovation in the College of Business has already agreed to offer some of their courses under the Blockchain specialization of the MEng degree, and we have had discussions with board members of the School of Computing regarding similar collaborations that could support the Data Analytics specialization.

Rationale

The Department recently changed its name from simply Petroleum Engineering to now Energy and Petroleum Engineering. The purpose of this is to signify that the department broadening its reach beyond petroleum alone and that it will continue to do so to help the State of Wyoming and the US meet the challenges of energy transition. The Department has a unique opportunity to expand education and equip graduates with critical expertise and leadership skills needed for the transition. The proposed MEng degree is consistent with the new Department vision and aims at attracting and retaining a wider and more diverse pool of applicants. This new degree program does not exist in any other University, to our best knowledge, because it offers four specialization areas that can be taken on-campus or remotely via DED. The implementation of new computational tools, such as

data analytics, blockchain and similar tools, within the petroleum and energy industries can be best achieved by those who have a background in both areas. This program can provide such a platform. Graduates from this program are already in high demand due to the shortage of Petroleum and Energy engineers that will continue in the foreseeable future.

Fit with UW's Strategic Plan

The proposed MEng degree will contribute to all four academic goals in UW's Breaking Through Strategic Plan. We present, in **Table 1**, the justifications under each of these goals.

Table 1. Alignment of the MEng degree program with UW's strategic plan

UW Goal	UW Target	Contribution of the new MEng Program
1. Driving Excellence	8 new academic programs	The proposed MEng degree is similar to the existing MS Plan B in PETE, but offers a broader range of subject matter specializations. It is an interdisciplinary program with unique structure and features.
2. Inspiring Students	Increase in overall enrollment	The new degree is expected to increase graduate enrollment due to its high accessibility and global interest in the specialization areas.
3. Impacting Communities	Increase community engagement	Energy, in many forms including oil and gas, is the main economic driver for the State of Wyoming. The proposed degree will promote growth and engagement with local communities and stakeholders.
4. A High-Performing University	Increase Total annual university revenue	The MEng is a self-funded, course-based program. Students will cover the costs of their tuition and fees. With increased enrollment, this program will become a revenue generator for the University with minimal effort and few new resources needed.

In terms of the University's emerging [4 Pillars](#), the proposed MEng degree contributes most noticeably to UW's goal of becoming more *digital*, as this program can be offered remotely and, from a technical perspective, the Data Analytics and Blockchain specializations have significant digital-based components, and the same description applies to various courses delivered under other specialization areas also. Being more *inclusive* is increasingly recognized as essential to successful energy and petroleum programs, and all PETE courses offered at UW emphasize this pillar. EPE itself is an interdisciplinary program, incorporating into its fold, environmental and natural resources sciences, chemical and mechanical engineering, geology and geological engineering and several other fields. Thus, our proposed degree will contribute to the more *interdisciplinary* pillar, both by covering concepts from multiple fields in our courses and by inviting students to join these courses from across campus as well as nationally and internationally. Industry involvement as an integrated as part of the curriculum, will prepare and inspire students to become more *entrepreneurial*.

Learning Outcomes

Tables 2 - 5 summarize the learning outcomes of our proposed 30-credit MEng degree program for the four specialization areas.

Table 2. Learning outcomes of the MEng degree in EPE with Specialization in Energy Engineering

Proposed learning outcomes	Core courses covering outcomes
Knowledgeable in energy theories	<ul style="list-style-type: none"> ▪ Thermodynamics ▪ Heat and Exergy Transfer
Knowledgeable in energy materials	<ul style="list-style-type: none"> ▪ Separation and Purification Technologies ▪ Subsurface Energy Storage ▪ Energy, Environment, and Materials
Knowledgeable in clean energy production and storage technologies	<ul style="list-style-type: none"> ▪ Subsurface Energy Storage ▪ Petroleum and Geothermal Energy ▪ Carbon Capture, Utilization and Storage ▪ Life Cycle Analysis ▪ Energy Economics
Capable in written and oral communications	<ul style="list-style-type: none"> ▪ Separation and Purification Technologies

Table 3. Learning outcomes of the MEng degree in EPE with Specialization in Advanced Drilling Engineering

Proposed learning outcomes	Core courses covering outcomes
Build a critical thinking approach to modern well design and engineering	<ul style="list-style-type: none"> ▪ Advanced Drilling Engineering ▪ Deepwater Drilling Engineering ▪ Horizontal Drilling and Completions
Practice creative problem-solving in drilling and well control operations	<ul style="list-style-type: none"> ▪ Advanced Drilling Engineering ▪ Advanced Well Control ▪ Drilling Problems and Solutions ▪ Advanced Well Intervention
Develop effective written, oral, and digital communication skills in drilling engineering	<ul style="list-style-type: none"> ▪ Advanced Drilling Engineering ▪ Advanced Well Control ▪ Managed Pressure Drilling ▪ Horizontal Drilling and Completions ▪ Drilling Data Analytics ▪ Non-Newtonian Fluids Characterization
Improve management and leadership skills in drilling engineering projects.	<ul style="list-style-type: none"> ▪ Advanced Drilling Engineering ▪ Drilling Problems and Solutions ▪ Managed Pressure Drilling ▪ Advanced Well Intervention ▪ Drilling Data Analytics
Deepen knowledge and skills in drilling engineering and well control research methods	<ul style="list-style-type: none"> ▪ Advanced Drilling Engineering ▪ Advanced Well Control ▪ Drilling Data Analytics

Table 4. Learning outcomes of the MEng degree in EPE with Specialization in Data Analytics

Proposed learning outcomes	Core courses covering outcomes
Evaluate a given business or engineering problem in the energy / oil and gas industry for the viability of data-driven solutions.	<ul style="list-style-type: none"> ▪ Data Mining - Introduction ▪ Programming Foundation ▪ Information Visualization ▪ Database Systems, Cloud and Data Engineering ▪ Time Series Analysis
Apply the data mining pipeline process in a methodical fashion from understanding data requirements, sourcing, integrating, preparing, and exploring the data.	
Identify the appropriate modeling techniques (supervised, unsupervised, timeseries, text mining etc.,) based on the business problem at hand and the available datasets.	
Apply advanced machine learning / deep learning algorithms and graph-based algorithms in the quest for optimum modeling solutions.	<ul style="list-style-type: none"> ▪ Data Mining - Advanced ▪ Natural Language Processing ▪ Deep Learning ▪ Graph Modeling
Communicate the results from the data analytics work effectively in oral or visual form.	<ul style="list-style-type: none"> ▪ Managing Data Science Projects
Understand how to manage machine learning projects based on the machine learning project lifecycle (MLOps / Data Ops) through collaboration and teamwork.	

Table 5. Learning outcomes of the MEng degree in EPE with Specialization in Blockchain Technology

Proposed learning outcomes	Core courses covering outcomes
Knowledgeable of blockchain development history, various blockchain platforms, digital assets, and cryptocurrencies	<ul style="list-style-type: none"> ▪ Fundamentals of Blockchain ▪ Business Application of Blockchain ▪ Blockchain in Energy
Understand how this technology is used to solve real-world problems in the energy sector	<ul style="list-style-type: none"> ▪ Case Studies in Blockchain ▪ Blockchain in Energy ▪ Applied Blockchain for Oil and Gas
Understand how blockchain technology disrupts legacy systems	<ul style="list-style-type: none"> ▪ Fundamentals of Blockchain ▪ Blockchain in Energy ▪ Applied Blockchain for Oil and Gas
Comprehend the competitive applications and opportunities of blockchain in the energy industry	<ul style="list-style-type: none"> ▪ Blockchain in Energy ▪ Applied Blockchain for Oil and Gas

Curriculum Map and Program Structure

Program Structure

Students enrolled in the MEng program will need to complete 30 credits (typically, 10 courses of 3 credits each) to graduate. Students with a bachelor's degree in petroleum engineering shall select a minimum of five (5) specialized courses from a list of core courses under each discipline and the remaining courses can be taken as technical electives in the department or from other programs across campus. Students with other engineering or related science backgrounds will be required to take five (5) graduate courses in Petroleum Engineering as electives in addition to the five (5) core courses in their specialized area. In some cases, and, if one without a prior degree in petroleum engineering, provides adequate evidence of past training or industry experience in the petroleum industry, the number of petroleum engineering electives may be reduced to allow for more courses in the specialized discipline.

An advisor will be assigned to each student upon admission or at the beginning of the first semester. The advisor may be the department head, the graduate coordinator, or the program administrator. The advisor will meet with the student to establish the Program of Study (POS) based on the background and interest of the student. This will help the student to clearly know their plan forward and manage their study and financial needs accordingly.

The diverse background of students who can join this program may require the POS to be different for each student, and the order of the courses that each student will take may also differ. As all courses are recorded and will be available in all semesters, including summer, there will be no issue in terms of offering all courses every semester, so no delay in student's progress and completion date is expected.

Core Courses

Tables 6 - 9 present the list and general order of core courses that the students are recommended to take, based on their specialized discipline. Each course listed is 3 credits.

Table 6. Core Courses in Energy Engineering

	Course	Status
1	Life Cycle Analysis	PETE 5050
2	Energy, Environment & Materials	PETE 5860
3	Thermodynamics	PETE 5020
4	Heat and Exergy Transfer	New
5	Subsurface Energy Storage	New
6	Petroleum and Geothermal Energy	New
7	Carbon Capture, Utilization and Storage	New
8	Energy Economics	New

Table 7. Core Courses in Advanced Drilling Engineering

	Course	Status
1	Advanced Drilling Engineering	PETE 5255
2	Rock Mechanics	PETE 5215
3	Advanced Well Control	New
4	Drilling Problems and Solutions	New
5	Deepwater Drilling Engineering	New
6	Managed Pressure Drilling	New
7	Horizontal Drilling and Completions	New
8	Advanced Well Intervention	New
9	Drilling Data Analytics	New
10	Non-Newtonian Fluids Characterization	New

Table 8. Core Courses in Data Analytics

	Course	Status
1	Data Mining - Introduction	PETE 5150
2	Data Mining - Advanced	New
3	Programming Foundation	New
4	Database Systems, Cloud and Data Engineering	New
5	Managing Data Science Projects	New
6	Time Series Analysis	New
7	Information Visualization	New
8	Natural Language Processing / Text Mining	New
9	Deep Learning	New
10	Graph Modeling	New

Table 9. Core Courses in Blockchain Technology

	Course	Status
1	Fundamentals of Blockchain	BKCH 3021*
2	Business Application of Blockchain	BKCH 4021*
3	Case Studies in Blockchain	BKCH 4121*
4	Blockchain in Energy	PETE 4820*
5	Applied Blockchain for Oil and Gas	New

*Graduate level courses are being developed to be cross-listed with these undergraduate courses.

New Course Descriptions

A brief description of courses offered in each specialization area is provided below.

Energy Engineering

*EPE 5*** – Heat and Exergy Transfer*

The course introduces the concepts of exergy, exergy destruction, and second-law efficiency, and the development of energy, entropy, and exergy balance equations for energy related processes, such as power plant, refrigeration, chemical process, thermal energy storage, hydrogen production, etc., which are needed to perform energy and exergy analyses. The outcomes of instruction are that (1) students can understand the fundamentals of exergy, exergy destruction, and second-law efficiency; (2) Students can develop energy, entropy, and exergy balance equations for simple and complex processes; and (3) Students can demonstrate their skills in energy and exergy analyses

*EPE 5*** – Separation and Purification Technologies*

The course is intended to direct students towards having a good command of modern separation and purification technologies (SPTs). It will enable students to choose the best one among available SPTs for a specific application in clean energy and chemical productions. The course materials are arranged to teach students how to compare the advantages and disadvantages of each SPT based on material and energy balances along with economic and environmental impact assessments, and thus equip students with basic life cycle analysis knowledge in energy generation areas. In addition, the teaching strategies to be used for the course are designed to lead students to practice one of the important engineering problem solving methods, i.e., breaking an engineering issue into different components, building the relationships among the known and unknown variables, collecting all the necessary information and making reasonable assumptions to get the unknowns, and eventually obtaining the solutions with appropriate experimental and computation tools.

*EPE 5*** – Subsurface Energy Storage*

This course covers the storage of energy from any source in subsurface facilities and the considerations involved in gravity energy storage and reservoir pressure cycling. The basics of geology and geophysics with regards to subsurface reservoirs will be covered at the beginning of this course. Related projects, such as Underground Gas Storage facilities and how they work will be discussed and related to energy storage through reservoir pressure cycling. Concepts associated with the repurposing of existing oil and gas facilities for gravity energy storage will be covered.

*EPE 5*** – Petroleum and Geothermal Energy*

In this course, the repurposing of technologies typically applied in the oil and gas industry will be discussed with regards to the development of geothermal energy. This will include topics such as geological and geophysical investigations, basin structural framework and thermal analysis, drilling technology and reservoir analysis. The basics of geology and geophysics will be briefly reviewed at the beginning of this course. The methods for identifying the optimum drilling locations within a basin for the development of geothermal energy will be discussed. The geological characteristics of potential reservoirs, through which fluids flow for the purpose of heating, will be reviewed. These will include both single and dual porosity reservoirs. The adaptation of drilling technologies used for oil and gas exploration and development of geothermal power generation facilities will be examined.

*EPE 5*** – Carbon Capture, Utilization and Storage*

This course covers the concepts of carbon capture, utilization and storage (CCUS). Its carbon capture section covers the principles and modern processes used for capture or removal of CO₂ from CO₂-containing point and nonpoint sources. Its capture utilization focuses on chemical transformation of CO₂ fuels and materials. Geosequestration and the considerations involved in the selection and operation of potential sequestration sites. The basics of geology and geophysics with regards to reservoir selection will be covered at the beginning of this course. The differences between CO₂ enhanced oil recovery (EOR) projects and geosequestration projects will be discussed.

*EPE 5*** – Energy Economics*

This course will cover principles of economics associated with engineering projects in general and energy-related projects in specific. NPV analysis, private and public sector projects with their corresponding attributes will be covered in enough details as well. Present and future worth, rate of return, payout and decisions under uncertainty, sensitivity analysis, taxation and depreciation will also be part of the course delivery plan. This course is designed to provide students with the fundamentals of Engineering Economics with specific attention allocated to Energy Engineering. Energy and Petroleum Engineers design optimum Energy production facilities from various energy sources and try to optimize energy generation and recovery. They also function as managers in the real world of decision making where the criteria include not only technological excellence, but also the cost. Upon the completion of this course, students should know when to repair or when to replace, when to make and when to buy. The engineer/ manager must understand how money works as well as how materials perform. Taxes and inflation can have significant impacts on the viability of projects. In a broader perspective, political and environmental considerations, social impacts, and new energy sources will have their due influence on the

economic viability of energy engineering projects. These contributors should also be incorporated into the process of decision making along with the technical considerations in engineering practices. This course is designed to introduce students to these concepts.

Advanced Drilling Engineering

*EPE 5*** – Advanced Well Control*

The course provides a comprehensive understanding of the methods, techniques, equipment, and calculations used in well control operations. Students will advance from vertical well control with water-based mud to horizontal well control and oil-based mud. Using field data and case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator. Students will also use industry software packages for advanced case studies.

*EPE 5*** – Drilling Problems and Solutions*

Successful drilling operations need knowledge and skills in predicting and minimizing downtimes. Increasing the drilling rate of penetration rates becomes secondary when drilling problems are encountered. Students will learn about problems specific to directional and horizontal drilling, multilateral drilling, coiled tubing drilling, and managed pressure drilling. Students will practice detecting and solving these problems using the full-size rig-floor drilling and well control simulator.

*EPE 5*** – Deepwater Drilling Engineering*

This course covers deepwater exploration, drilling, and completions. Students will learn deepwater well construction, drilling problems and solutions, as well as offshore rig and subsea equipment. Students will practice subsea kick detection and circulation methods using the state-of-the-art simulation facility. Students will explore different techniques, such as dual gradient drilling and continuous circulation methods for deepwater drilling. Using field data and case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

*EPE 5*** – Managed Pressure Drilling*

The course introduces the current underbalanced and managed pressure drilling techniques. Students will learn the why and how managed pressure drilling is becoming the default drilling technique in challenging wells. Students will explore different techniques, such as dual gradient drilling and continuous circulation methods. The course highlights the relevant issues that need to be addressed in well planning and design and the well integrity and well control aspects. Using field data and case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

*EPE 5*** – Horizontal Drilling and Completions*

This course provides a comprehensive understanding of the principles and practices for safe and cost-effective drilling of horizontal wells. The course covers well trajectory planning and surveying single-bore and multilateral wells. Students will also learn the strategies for completing horizontal wells, including cased-hole and open-hole configurations, with or without sand control and gravel packing. Students will also learn the dynamics of horizontal wells, including drill-in fluids, hole displacement, cementing, perforating, and stimulation. Using field data and case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

*EPE 5*** – Advanced Well Intervention*

The course provides an advanced understanding of well intervention techniques and equipment. Students will learn the role of engineers and field operators in planning and executing the intervention operations that add to the profitability and recoverable reserves. Students will also learn the significance of the team concept as a factor in optimizing operations success. Students will use the wireline and coiled tubing full-size simulators in planning and executing safe and efficient operations. Using field data and case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

EPE 5* – Drilling Data Analytics**

Drilling rigs and operations are now in a sea of data where big data is collected from virtually every sensor imaginable. This data can provide ways and means to go above and beyond traditional optimization techniques. Clustering techniques, neural networks, fuzzy logic, genetic algorithms, and other heuristics are becoming the new norm for data-driven modeling. Students will learn data collection, preparation, cleaning, visualization, and modeling. Using software packages, field data, and drilling case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

EPE 5* – Non-Newtonian Fluids Characterization**

The course covers non-Newtonian fluids, their behavior, and mechanical properties. Students will learn what characterizes non-Newtonian fluids and the basic equations in rheology and hydraulics. Students will also learn some linearly viscoelastic fluid models. The course covers Bingham Plastic Model, Power Law Model, and Hershel Bulkley Model. Using software packages, field data, and drilling case studies, the course provides research-based and hands-on knowledge using the full-size rig-floor drilling and well control simulator.

Data Analytics**EPE 5*** – Data Mining - Advanced**

This course builds on the data mining concepts introduced in the Data Mining- Introduction course and presents advanced data mining / machine learning algorithms such as Support Vector Machines, Artificial Neural Networks and Ensemble Methods for supervised classification and regression problems. It also introduces students to other clustering techniques such as Self-Organizing Maps, Density based and Spectral Clustering and Anomaly Detection techniques. Hands-on training will be provided to apply the CRISP Data Mining pipeline using Orange visual programming software and Python programming language on energy / oil and gas datasets. After successfully completing this course, students are expected to (i) identify relevant real-world datasets in the context of business challenges provided, integrate and prepare them for model training using the advanced data mining algorithms introduced and Python / Orange. (ii) Evaluate models' performance via various validation techniques appropriate for classification / regression problem and deploy the best model(s) for prediction. And (iii) apply clustering algorithms learnt to extract patterns in the dataset, interpret the clusters and compare them with base clustering algorithms. *Prerequisite: PETE 5150 (Data Mining – Introduction)*

EPE 5* – Programming Foundation**

This course provides an introduction to programming in the context of data mining using the Python programming language. Students will get hands-on training on writing programs for data analysis. Topics include data import / export, data types, control statements, functions, and data visualization. After successfully completing this course, students are expected to (i) write Python programs for data analysis and basic data modeling, and (ii) apply the programming knowledge and skills in exploring real-world datasets from the energy / oil and gas industry.

EPE 5* – Database Systems, Cloud and Data Engineering**

Provides an introduction to design and implementation of database systems and data models. Concepts around Cloud Computing, Cloud Data Platforms and the Data Engineering process will also be introduced to the students. Hands-on exposure to database design using SQL and using a cloud-based platform (e.g. Snowflake) will also be part of the course. After successfully completing this course, students are expected to (i) have a foundational understanding of database design and implementation and different data models, (ii) explain the concept of cloud computing and the data engineering pipeline, and (iii) list the requirements of a modern cloud platform.

EPE 5* – Managing Data Science Projects**

Business value is realized from data science projects only when they are deployed in a production environment. This course will introduce the students to the Machine Learning project life cycle and inherent challenges. Concepts such as DataOps, MLOps, Agile Data Science and MLOps Governance will also be presented. After successfully completing this course, students are expected to (i) explain the Machine Learning project lifecycle, terms such as DataOps, MLOps and Agile Data Science, and (ii) understand the framework to prepare and deploy Machine Learning models to production, monitoring and feedback loop.

*EPE 5*** – Time Series Analysis*

This course introduces the students to tools and techniques for building and interpreting valid models for univariate and multivariate timeseries data using real-world examples. Open-source programming language such as Python and visual programming software such as Orange will be used to provide students hands-on training in model building, validation, and analysis. After successfully completing this course, students are expected to (i) prepare time series data for modeling, (ii) identify properties of time series data such as stationarity, trend and seasonality, (iii) fit suitable models to time series data in the energy / oil and gas industry setting and interpret model results, and (iv) forecast future values using the model, validate and draw business conclusions.

*EPE 5*** – Information Visualization*

This course introduces students to information visualization and visual analytics concepts in a comprehensive manner. Students will gain the required background knowledge and skills for visual representation and analytics of complex data. Hands-on training will be provided using visual analytics software tools like Tableau and / or Power BI. After successfully completing this course, students are expected to (i) use visualization theory to effectively connect technical requirements and visualization design requirements, and (ii) apply visual analytics software tools such as Tableau or Power BI to create effective visualizations of the data from energy / oil and gas industry, identify meaningful patterns, extract valuable business insights and use visual storytelling to communicate results.

*EPE 5*** – Natural Language Processing / Text Mining*

This course introduces essential concepts of natural language processing (NLP) with emphasis on the methods to extract actionable insights from unstructured text data. The topics include text clustering and classification, similarity analysis, text summarization, and topic modeling. Hands-on training will be based on Python programming language and state-of-art NLP frameworks such as NLTK, Gensim, and spaCy for designing and evaluating the NLP models. Orange visual programming software may also be used for hands-on training. Datasets from the energy / oil and gas industry will be used. After successfully completing this course, students are expected to (i) have a foundational understanding of natural language processing and identify the challenges and constraints of mining text data, (ii) apply data *preprocessing techniques to address challenges specific to text data including structuring unstructured-data*, and dimensionality reduction according to linguistic context, (iii) build and evaluate NLP models using supervised and unsupervised machine learning techniques specific to text mining, and (vi) apply the state-of-art NLP frameworks designing and evaluating the NLP models including sentiment analysis, text summarization, topic modelling.

*EPE 5*** – Deep Learning*

This course introduces deep learning using convolutional and recurrent neural networks. Application of these models in image classification, text and sequence processing will be discussed using hands on training based on Python programming language and Keras / PyTorch deep learning framework and energy / oil and gas data sets. After successfully completing this course, students are expected to (i) demonstrate the understanding of tensors as the key data structure for deep learning, deep learning network architecture including dense layers, pooling, convolutional and recurrent layers, and (ii) prepare, clean, preprocess data, train deep learning models using Python and Keras / Pytorch, evaluate and optimize model performance using hyper parameter tuning and deploy best model(s) for prediction.

*EPE 5*** – Graph Modeling*

This course will provide students a fundamental understanding of graphs and graph data models. Students will learn how to represent relational data as graph data. The course will also introduce the concepts of knowledge graphs and graph visualization, graph algorithms such as clustering, page ranking and graph powered machine learning. Hands-on training will be provided using Python programming and NetworkX package and / or Neo4j Graph Data Platform. After successfully completing this course, students are expected to (i) have a good understanding of graph, graph networks, graph data models, knowledge graphs and graph algorithms, (ii) compare and contrast relational and graph data models. Migrate relational data to graph data, and (iii) apply Python and NetworkX or Neo4j to create a graph data model and graph visualization, carry out graph analytics and present results for a problem in the energy / oil and gas industry setting.

Blockchain Technology

EPE 5*** – Applied Blockchain for Oil and Gas

This is an applied course focusing on hands-on experience with developing applications for oil and gas operations. Students will learn blockchain development and advanced smart contract programming. We will then explore real-world case studies within the oil and gas industry. The students then apply the learned skills to develop term projects in the areas of sustainability, supply-chain management, carbon accounting, etc. *Prerequisite: PETE 4820 (Blockchain in Energy)*

Elective Courses

Students can take electives from all the specialization areas of MEng, PETE courses, or the following list of approved courses across campus. Each course is 3 credits. Other electives may be selected with advisor approval.

Table 10. List of Approved Technical Electives

Course	Number	Department/School
Blockchain: Design/Programming	COSC 5010	Computer Science
Solar and Geothermal Engineering	ESE 4460	Mechanical Engineering
Wind and Ocean Energy Engineering	ESE 4470	
Energy Methods	ME 5474	
Conduction and Radiation	ME 5475	
Environmental Engineering Chemistry	CE 5430	Civil Engineering
Carbon Capture and Storage	CE 5700-3	
Water for Energy	CE 5700-6	
Groundwater Hydrology	CE 5810	
Water Resource Engineering	CE 5870	Geology and Geophysics
Petroleum Geology	GEOL 4190	
Environmental Data Analysis	GEOL 5225	
Mathematical Geosciences	GEOL 5250	
Introduction to Geomodeling	GEOL 5470	
Geochemistry of Natural Waters	GEOL 5777	
Applied Geophysics	GEOL 5835	Economics
Environmental Economics	ECON 4400	
Natural Resource Economics	ECON 4410	
Energy Economics	ECON 4430	
Advanced Resource & Environmental Economics	ECON 5400	School of Energy Resources
Solar Energy Conversion	ERS 4050	
Oil and Gas Law	ERS 4130	
Advanced Oil and Gas Law	ERS 4135	Haub School of Environment and Natural Resources
Environmental Politics	ENR 4051	
Federal Land Politics	ENR 4052	
Techniques in Environmental Data Management	ENR 5050	
Environmental Science: Perspectives and Methods	ENR 5150	
Risk Analysis	ENR 5500	
Environmental Data Analysis	ENR 5525	
ENR Law and Policy	ENR 5750	
Energy Industry Value Chain	MGT 5504	Business
Energy Finance: Securities, Hedging, and Trading	MBAM 5506	
Energy Economics and Policy	MBAM 5501	
Energy Research Method	EPE 5090	EPE
Energy Technology Seminar	EPE 5890	

Assessment Plan

Each course uses its own combination of assessment tools to determine students' mastery of the learning objectives, and these will be outlined in detail in the course syllabi. Assessment tools include standard, regular exams, discussions and quizzes and homework to monitor student engagement with course material plus course projects that assess learning via scientific communications, creating group presentations and other forms of audio and/or visual media. To receive their Graduate MEng degree, students must earn a final grade of a C or better in each of the 10 courses that they need to complete.

Degree Program Evaluation

To evaluate success of our students after earning the proposed Graduate MEng degree in EPE, we anticipate using different approaches, where applicable. Exit surveys for students to collect their feedback about the program at the time of graduation, feedback from the employers of those students who work in the industry or the Alumni, and review of the entire course materials by the department's industry advisory board (IAB) are examples of methods that we will be using to evaluate the quality of the program.

Substantive Change Determination

The proposed Graduate MEng degree in EPE is not a substantive change, but rather a formalization and expansion of the current MS degree in Petroleum Engineering.

New Resources Required

Faculty and instructional staffing

The DEPE has employed two new faculty members in Fall 2022, one Full Professor with teaching experiences in drilling and one Associate Professor skilled in Data Analytics. Two Research Associates faculty members were also hired this year with teaching experiences in drilling and data analytics, respectively. The Department has already one faculty with long term experience in developing courses in Blockchain and has a close working relationship with the Center for Blockchain and Digital Innovation. We also have four faculty members who have developed courses in the area of Energy Engineering and delivered them as elective courses at the graduate level. Therefore, the Department has already an adequate number of faculty to effectively offer the courses under all the four specialization areas proposed under this MEng degree program.

Program administration and staff support

We expect the number of students joining this program to grow rapidly after the first couple of years. Therefore, there may be a need for a non-academic program coordinator, ideally have a background in business administration, to support the administrative side of the program. The salary for this person will be covered from the revenue that will be generated from the delivery of the MEng program. The role of this person includes, but not limited to, the following:

- Administratively coordinate the overall MEng program
- Oversee recruiting, advertising, applications, and formal admissions to the proposed Graduate MEng program
- Provide university and division service
- Distance education liaison and resource: Ensuring program uses best practices in distance education – pedagogical and technological
- Potentially, interdepartmental liaison for cross-disciplinary program development
- Budget Planning
- As the program develops, serves as the program coordinator
- Market the programs and recruit MEng students via low-cost options including networking both nationally and internationally
- Engage MEng students, eventually including maintaining an alumni network.

Technology

There will be no technological expenses associated with the delivery of the proposed MEng program. All courses in the proposed degree program will be available using existent software for UW's online courses.

Library and digital resources

There will be no need for the library to make any changes to the services it currently provides to meet the needs of the proposed MEng program. Librarians are available to help MEng students with the same resources available to all students, and, thus, an increase in total enrollment would not substantially impact library resources.

Marketing

We have budgeted \$5,000 for our first fiscal year of the MEng program, decreasing to \$2,000 per year after that. The administrative coordinator will work with UW marketing staff to develop materials and methods and will continue this relationship. We also plan to use Work Study employee time for marketing assistance.

Support

We do not foresee needing any additional support.

Executive Summary of Demand Statistics

The Department of Energy and Petroleum Engineering at the University of Wyoming has a long history of excellence in teaching and research. The existence and continuation of this program is of critical importance to the state's stakeholders in the oil and gas and energy industries, as the major economic drivers of the state. Educating qualified engineers who can serve this industry in the future will ensure the economic growth of the state and help it to remain as one of the major energy suppliers in the country.

With the significant decline in the number of undergraduate students in petroleum engineering in all universities worldwide (see **Figure 1**, official data from Petroleum Engineering Department Heads Association, PEDHA), some of the programs had to merge or terminate their petroleum engineering programs. As stated above, this is not a strategy that we would like to ever consider again in Wyoming. Instead, we are committed to growing the education, research, and job opportunities in this field for the people of Wyoming.

The current shortage of petroleum engineers in North America and worldwide, and the consequential threat to the energy and oil and gas industries has been addressed by multiple sources. Here, some example quotes are presented in **Appendix 1**, which urge the need to change the trend by using innovative models, such as the proposed MEng program, and graduating more energy and petroleum engineering students. The data in Appendix 1 also shows the high demand for petroleum engineers in Wyoming and the top rate salary that is offered to graduates from petroleum engineering programs.

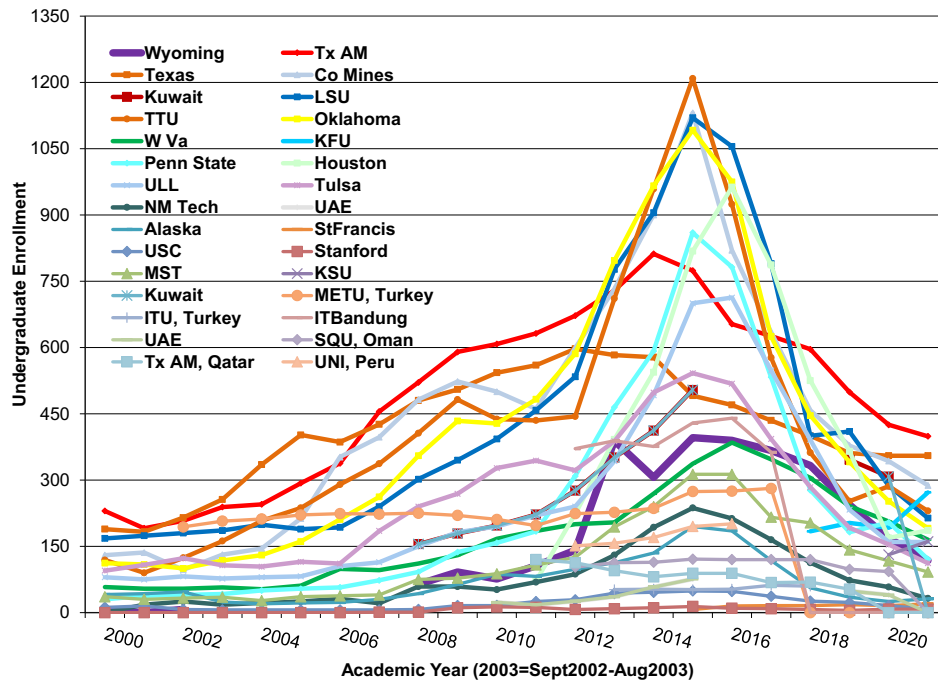


Figure 1. Number of undergraduate enrollments in petroleum engineering in universities worldwide (Petroleum Engineering Department Heads Association, PEDHA).

Appendix 1- Statistical Data and Facts on Petroleum Engineers

US Bureau of Labor Statistics (<https://www.bls.gov/ooh/architecture-and-engineering/petroleum-engineers.htm>)

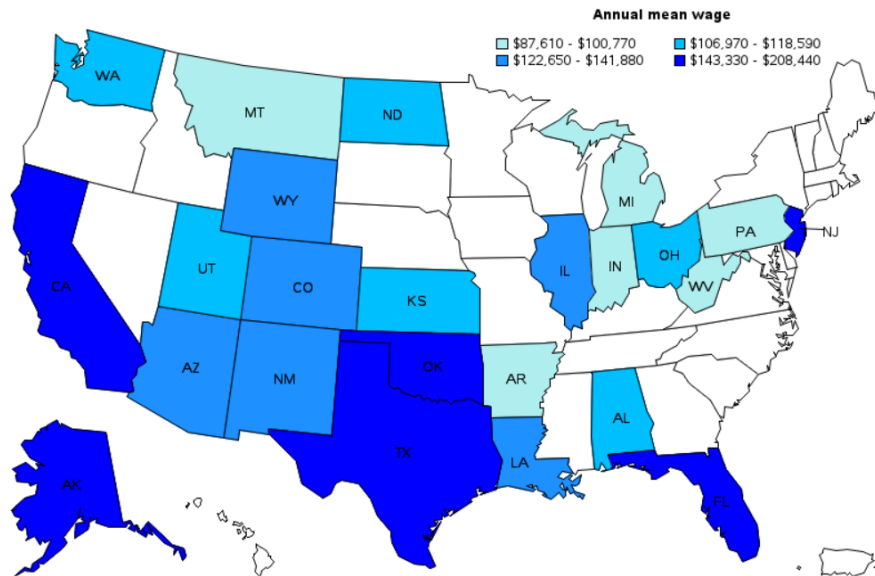
Quick Facts: Petroleum Engineers	
2021 Median Pay ?	\$130,850 per year \$62.91 per hour
Typical Entry-Level Education ?	Bachelor's degree
Work Experience in a Related Occupation ?	None
On-the-job Training ?	None
Number of Jobs, 2021 ?	22,800
Job Outlook, 2021-31 ?	8% (Faster than average)
Employment Change, 2021-31 ?	1,900

US Bureau of Labor Statistics (<https://www.bls.gov/oes/current/oes172171.htm>)

States with the highest concentration of jobs and location quotients in Petroleum Engineers:

State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Oklahoma	1,910	1.23	7.81	\$ 68.91	\$ 143,330
Wyoming	320	1.21	7.74	\$ 58.97	\$ 122,650
Alaska	350	1.19	7.61	\$ 81.77	\$ 170,080
Texas	10,900	0.89	5.68	\$ 72.80	\$ 151,420
North Dakota	270	0.68	4.34	\$ 51.58	\$ 107,280

Annual mean wage of petroleum engineers, by state, May 2021



Reuters, April 28, 2022 (<https://www.reuters.com/business/energy/n-american-oil-companies-scramble-find-workers-despite-boom-2022-04-29/>)

North American oil companies scramble to find workers despite boom.

Mark Marmo, CEO of Deep Well Services, an oilfield firm based in Zelienople, Pennsylvania, said fracking work in places like West Texas is currently delayed about two weeks to a month because of a lack of labor. "We hired 350. If we could hire another 350, we'd put them all to work," he said.

U.S. and Canadian production is anticipated to grow even with a tight labor market, but executives said output could surpass expectations if more workers were available.

In the United States, output is expected to grow by about 800,000 barrels per day (bpd) in 2022 to average 12 million bpd, the Energy Information Administration (EIA) forecast, short of 2019's all-time high of 12.3 million bpd. Canada's production, including natural gas liquids, is forecast to rise by 190,000 bpd to 5.75 million bpd, the EIA said.

Braingainmag (<https://www.braingainmag.com/petroleum-engineering-graduates-are-the-hottest-commodity-in-the-us.htm>)

There is a shortage of specialty engineers, so poaching is rife. Supply of talent is short, putting a premium on petroleum engineering graduates as well as industry veterans who know how to get the most value out of wells that can cost tens of millions of dollars to drill.

"We know it will be a challenge to get our share of the talent to meet our growth needs," Frank Rudolph, executive vice president of human resources at Devon told Reuters.

A recent Schlumberger Business Consulting survey of 37 global firms found that they might have to delay projects, as they can't find enough petroleum engineers.

"The technical complexity of future oil supply requires both technology and qualified petrotechnical professionals in greater number" said Al Escher, area director of North and South America for Schlumberger Business Consulting and a petroleum engineer.

Salary comparison site, PayScale, surveyed 2.3 million graduates from over 2,700 colleges across the US and found that the highest-paying college major isn't business, and it isn't computer science either.

The highest-paying college major? Petroleum engineering.

According to PayScale, workers with this degree earn around \$100,000 at the beginning of their careers, and an occupation-wide average of \$175,000 a year.

HARTENERGY (<https://www.hartenergy.com/opinions/university-houston-addresses-petroleum-engineer-shortage-122226>)

University of Houston addresses petroleum engineer shortage.

Over the next four years, our vision is to go from 1,500 students to more than 4,000 students being trained for energy industry jobs. We're building a first-class research center, and petroleum engineering is the hook that will be a big part of it.

The Fuse (<https://energyfuse.org/petroleum-engineering-enrollment-is-in-decline-should-industry-worry/>)

This year the nation's 22 petroleum engineering programs enrolled nearly 2,000 seniors—roughly 1,800 fewer than in 2016. In total, more than 4,500 U.S. undergraduates were pursuing petroleum engineering degrees in 2019, down 60%.

Petroleum engineers earn starting salaries of approximately \$84,000, with standard licensure and a Bachelor of Science degree. This exceeds the second-highest starting salaries of chemical engineers by more than 15%. Last year, on average, the Bureau of Labor Statistics (BLS) says petroleum engineers earned \$137,000.

Anticipated Revenues & Expenses

Name of Proposed Program: **Master of Engineering (MEng) in Energy and Petroleum Engineering**

	FY2024	FY2025	FY2026	FY2027	Comments
Revenue					
Tuition & Educational Fees Net					
Tuition					
Tuition - Main Campus	-	-	-	-	Assumes 15 credit hours per student per year
Tuition - Distance	53,205	130,790	287,733	408,073	
Financial Aid					
Financial Aid - Graduate					
Educational Fees					
Main Campus Mandatory Fees	-	-	-	-	Based on FY23 mandatory fees for full-time main campus students (\$791.76 per semester for graduate students)
Distance Mandatory Fees	4,125	9,900	20,625	28,875	Based on FY23: \$55/credit hour (Distance students assumed to be enrolled in online coursework)
Miscellaneous Fees					
Subtotal: Tuition & Educational Fees Net	\$ 57,330	\$ 140,690	\$ 308,358	\$ 436,948	
Sales of Goods & Services					
Other Operating Revenue					
Total Revenue	\$ 57,330	\$ 140,690	\$ 308,358	\$ 436,948	
Operating Expense & Internal Allocations					
Salary, Wages & Benefits					
Faculty Salary	6,000	10,000	20,000	25,000	Faculty summer salary to develop new courses *possibility to hire program coordinator after Year 4
Staff Salary	-	-	-	-	
Part-time Salary	-	-	-	-	
Graduate Assistant Stipends	-	-	-	-	
Supplemental Pay (Faculty - AY)	-	-	-	-	
Fringe Benefits Expense	2,658	4,430	8,860	11,075	Fringe calculations are based on FY23 (non-sponsored program) rates.
Subtotal: Salaries, Wages & Benefits	\$ 8,658	\$ 14,430	\$ 28,860	\$ 36,075	
Services, Travel and Supplies					
Professional Services					
Travel					
Supplies					
Other Expense					
Utilities					
Repairs & Maintenance					
Rentals & Leases					
Capital Equipment					
Other		5,000	2,000	2,000	2,000 Marketing
Internal Allocations & Sales					
Internal Service Allocation: Plant Operations					
Internal Service Allocation: Info Tech					
Internal Service Allocation: Other					
Internal Sales: Auxiliaries					
Total Operating Expense & Internal Allocations	\$ 13,658	\$ 16,430	\$ 30,860	\$ 38,075	
Statement of Activities Net Result	\$ 43,672	\$ 124,260	\$ 277,498	\$ 398,873	

	Academic Year 2023-2024		Academic Year 2024-2025				Academic Year 2025-2026				Academic Year 2026-2027				Comments
	New Admitted Students	Total Student Credit Hours	New Admitted Students	2nd Year Students	Total Enrollment	Total Student Credit Hours	New Admitted Students	2nd Year Students	Total Enrollment	Total Student Credit Hours	New Admitted Students	2nd Year Students	Total Enrollment	Total Student Credit Hours	
Main Campus*															
Resident		0.0		0	0	0.0		0	0	0.0		0	0	0.0	
Non-resident		0.0		0	0	0.0		0	0	0.0		0	0	0.0	
Distance*															
Resident	2	30.0	3	2	5	75.0	7	3	10	150.0	8	7	15	225.0	
Non-resident	3	45.0	4	3	7	105.0	11	4	15	225.0	9	11	20	300.0	
	5	75.0	7	5	12	180.0	18	7	25	375.0	17	18	35	525.0	

Enter the anticipated number of students admitted to the program each year by student type in the yellow cells.

*Main Campus and Distance refer to the *program* type (i.e., how the student is classified), not the the location of any particular course offerings.

If you are proposing a program with a tuition rate other than the standard university rate, please contact the Budget Office.

	Academic Year 2023-2024			Academic Year 2024-2025			Academic Year 2025-2026			Academic Year 2026-2027		
	<i>Projected Tuition Rates</i>	<i>Student Credit Hours</i>	<i>FY25 Projected Revenue</i>	<i>Projected Tuition</i>	<i>Student Credit Hours</i>	<i>FY26 Projected Revenue</i>	<i>Projected Tuition</i>	<i>Student Credit Hours</i>	<i>FY27 Projected Revenue</i>	<i>Projected Tuition</i>	<i>Student Credit Hours</i>	<i>FY28 Projected Revenue</i>
Main Campus												
Resident	\$323	0.0	\$ -	\$336	0.0	\$ -	\$349	0.0	\$ -	\$363	0.0	\$ -
Non-resident	\$967	0.0	\$ -	\$1,006	0.0	\$ -	\$1,046	0.0	\$ -	\$1,088	0.0	\$ -
Distance Education												
Resident	\$323	30.0	\$ 9,690	\$336	75.0	\$ 25,194	\$349	150.0	\$ 52,404	\$363	225.0	\$ 81,749
Non-resident	\$967	45.0	\$ 43,515	\$1,006	105.0	\$ 105,596	\$1,046	225.0	\$ 235,329	\$1,088	300.0	\$ 326,323
		75.0	\$53,205		180.0	\$130,790		375.0	\$287,733		525.0	\$408,073

Use this workbook to reflect anticipated revenue and expense associated with the proposed program.

Only include revenues and expenses that are truly new to the university.

Use the "Program of Study" worksheet to enter the expected coursework path for a student in the proposed program. Enter the number of students you anticipate will be admitted to the program in each year on the "Enrollment Projection" sheet. The "Salary Projection" sheet is for new personnel associated with the proposed program. Enter additional known revenue and expense as appropriate in any of the yellow cells on the "Budget Summary" sheet. Comment fields are available throughout to include additional detail.

Tuition

The tuition calculations are based on the figures entered on the "Enrollment Projection" sheet. Enter the projected number of students admitted to the program each year by student type.

Note that "Main Campus" and "Distance" refer to the *program* type, rather than the site of any given course offered. For example, the Online MBA is an entirely distance education program, so all students admitted to it would be counted as "Distance," whereas all students in the standard MBA program would be counted as "Main Campus" (even if students in either program may complete some coursework online).

If you are proposing a program with a tuition rate that differs from standard university rates, please contact the Budget Office.

Financial Aid

Include anticipated scholarship payments in this area with a **negative** dollar value. If including financial aid expense, please indicate the intended source of funding (e.g., unrestricted operating, Foundation funds, grants, etc.).

Fees

Mandatory fees are calculated automatically based on the rates published in the FY23 fee book. If you plan to assess additional fees, please indicate these in the "Miscellaneous Fees" area and use the comments filed to give further detail.

Other Revenue

Enter additional revenue from sources outside the university as a **negative** value. Income that is internal (e.g., IDTs) should be indicated in the "Internal Allocations & Sales" area below.

Salary, Wages & Benefits

Use the "Salary Projection" sheet to list new personnel associated with the proposed program. Be sure to select a "Type" (Faculty, Staff, etc.) and only enter gross salary amounts: fringe expense is calculated automatically on the "Budget Summary" sheet.

Internal Allocations & Sales

List expenses and revenues internal to the university, such as the following:

Plant Operations (UW Operations)

Info Tech (data & telephone charges)

Other (e.g., UW Catering)

Auxiliaries (copier, postal, fleet service rentals)

Use a **negative** value to indicate funds being received by the program.

Contact the Budget Office if you have additional questions or for further clarifications:

budgetoffice@uwyo.edu or 766-8064

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Request for Authorization, Honors Interdisciplinary Inquiry Concurrent Major, (Barrett, Parolin)

- PUBLIC SESSION
 EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
 No

FOR FULL BOARD CONSIDERATION:

- Yes
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
 No

Attachments/materials are provided in advance of the meeting.

EXECUTIVE SUMMARY:

The proposed concurrent bachelor's degree is a major housed in the Honors College. It is an expansion of our longstanding and highly subscribed interdisciplinary Honors minor, with a current enrollment of 680 students. We propose an innovative interdisciplinary major offered both on-campus and fully available online within the Honors College to be taken concurrently with another major. Students majoring in Honors Interdisciplinary Inquiry will explore the interdisciplinary nature of our past, present, and future – of humans, technology, our environment, and the world – in concentrations of their choosing, which include Environment, Ethics, and Humankind; Health, Policy, and the Body; Technology, Society, and the Future; and Creativity, Social Justice, and our World. The proposed degree has completed the review process and we seek approval of the Request for Authorization. A letter of commitment from Provost Carman is included.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

University of Wyoming Regulation 2-119 requires that the Board approve all new degree programs and lays out the process for that approval. The Academic and Student Affairs Committee will report to the Board on recommended action for approval of the new degree program.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Consideration for approval of the Request for Authorization for the concurrent Honors major

PROPOSED MOTION:

“I move that the Request for Authorization for the Honors Interdisciplinary Inquiry Concurrent Major be approved for full board consideration.”

UNIVERSITY OF WYOMING

Office of Academic Affairs

1000 E. University Avenue
Dept. 3302, 312 Old Main
Laramie, WY 82071
307.766.4286 • fax: 307.766.2606

April 27, 2023

Board of Trustees:

This letter serves as a Letter of Commitment for the concurrent BA in Honors Interdisciplinary Inquiry.

Needs

The UW interdisciplinary Honors major would be highly distinctive, and even one-of-a-kind, in offering a fully online option. None of our peer institutions in the region offer equivalent interdisciplinary concurrent Honors majors. At the national level, the most similar program is Texas Tech's major in Honors Sciences and the Humanities. This program offers four specific concentrations tailored to students' desired career paths. Overall, they have 1700 Honors students, with 9-12 core faculty members, and 80 graduates per year.

Requirements

The concurrent degree requirements include:

- **Core Credits:** Students are required to complete 20 core credits: the first year Colloquium sequence, six non-western credits, two one-credit research methods courses, the capstone seminar, and an internship
- **Concentrations:** Alongside the 20 core credits, students choose 15 additional credits from one area.

Resources

No additional faculty, administrators, or staff are needed to deliver this new concurrent degree program. A startup cost of \$5,000 will be reallocated from current Honors budget.

Total resources requested: \$0.

Timeline

The present implementation timeline is designed to enable students to enroll in this degree program in the Fall 2024.

Campus Review

I affirm that the university community, including the Executive Team, Deans and Directors, Faculty Senate, Staff Senate and ASUW, have been provided the opportunity to review and present feedback on the proposed certificate program.

Best,

A handwritten signature in black ink, appearing to be 'K. Carman', written in a cursive style.

Kevin Carman
Provost and Executive Vice President

Feasibility Study for Bachelor's in Honors Interdisciplinary Inquiry

Executive Summary a/o November 8, 2023

Degree or Certificate Title: BA in Honors Interdisciplinary Inquiry

Level of Degree or Certificate: Undergraduate

Delivery Mode(s): On-campus, on-line

Estimated Startup Cost of Degree: \$5,000 (reallocated funds from current Honors budget)

Estimated Additional Funds: \$0

Anticipated Launch Date: Fall 2024

Description:

- The proposed *concurrent* bachelor's degree is a major housed in the Honors College. It is an expansion of our longstanding and highly subscribed interdisciplinary Honors *minor*, with a current enrollment of 680 students. We propose an innovative interdisciplinary major offered both on-campus and fully available online within the Honors College to be taken concurrently with another major. Students majoring in Honors Interdisciplinary Inquiry will explore the interdisciplinary nature of our past, present, and future – of humans, technology, our environment, and the world – in concentrations of their choosing, which include *Environment, Ethics, and Humankind; Health, Policy, and the Body; Technology, Society, and the Future; and Creativity, Social Justice, and our World.*

The mission of the University of Wyoming Honors College

- To provide a diverse body of motivated students with an interdisciplinary academic experience that positions them for success. The Honors College is an inclusive community that challenges students to think ethically, creatively, and collaboratively and to cultivate inquiry, reflection, engagement, and growth. We ask students to explore multiple academic fields, experience co-curricular activity, and produce original research or creative work. Honors promotes the intellectual experimentation and discovery that attract and retain some of UW's finest students and faculty.

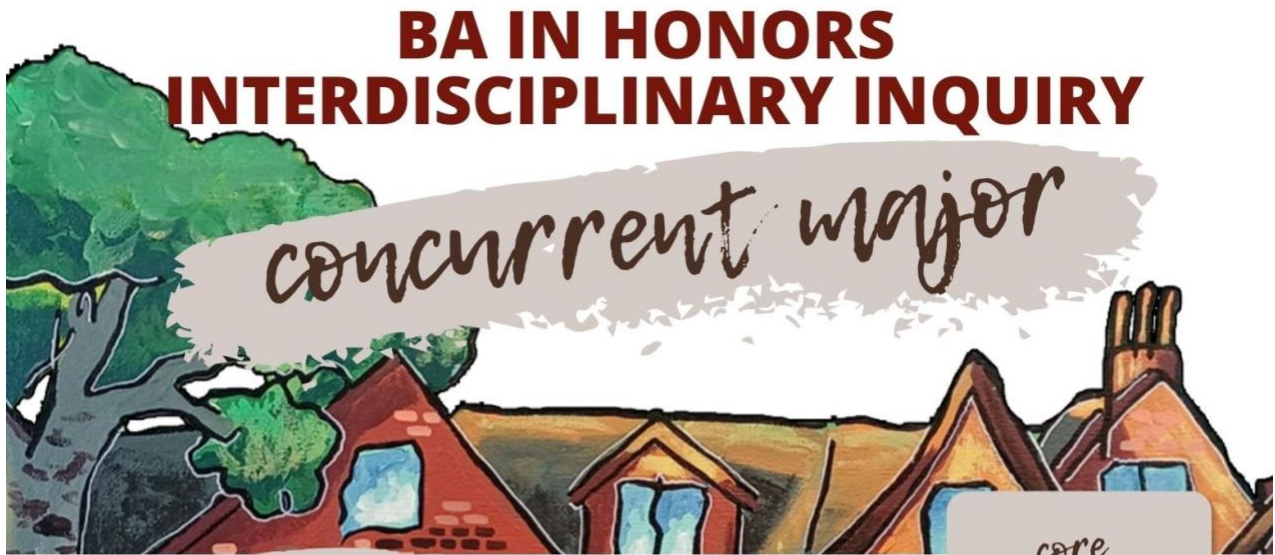
In the most recent survey of 244 current First and Second year Honors College students, (with a 34% response rate), students were asked two questions. The results are below:

1. If this Honors concurrent major degree option was available to them when they began researching their college major, **57%** would be *very likely* or *somewhat likely* to consider adding this concurrent major. (23% would be very likely to consider adding this major while 34% would be somewhat likely to add this major)

2. If this concurrent degree were to be offered beginning Fall 2023 and would not delay their graduation, 61% would be *very likely* or *somewhat likely* to consider adding this concurrent major. (28% would be very likely to consider adding this major while 33% would be somewhat likely to add this major)

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What is the Honors major?

Explore the interdisciplinary nature of our past, present, and future in a concentration of your choosing.

core
20
credits

What are the interdisciplinary concentrations?



Environment, Ethics, & Humankind



Health, Policy, & the Body



Technology, Society, & the Future



Creativity, Social Justice, & our World

concentration
15
credits

Why an interdisciplinary degree?

Career Flexibility

Pursue a career in a wide variety of fields from medicine to technology and education to management, and everything in between.

[Data USA](#)

Grad School Prep

42% of interdisciplinary majors in the workforce have advanced degrees.

[US Bureau of Labor Statistics](#)

In-demand skills

Gain skills employers are looking for:

- teamwork -
- communication skills -
- problem solving -
- critical thinking -

[Data US](#)

key experiences

- internship -
- study abroad -
- capstone project -
- experiential learning -



Learning Outcomes

Describe and outline the learning outcomes of the degree or certificate, focusing on the core competencies you expect graduates to exhibit and accumulate as they complete the degree or certificate.

SLO 1: Interdisciplinary Perspectives

- Students will demonstrate interdisciplinary perspectives by comparing, contrasting, and interpreting the relationships between multiple disciplines.

SLO 2: Applied Knowledge

- Students will apply knowledge and skills, both collaboratively and individually, by utilizing experiential learning.

SLO 3: Communication Skills

- Students will demonstrate effective communication skills using a multitude of platforms for a variety of audiences.

SLO 4: Global Cultural Perspectives

- Students will cultivate an understanding of diversity and the importance of global cultural competence.

SLO 5: Research or Creative Competency

- Students will undertake a coherent research or creative project, service project, community engagement project, or entrepreneurial project to contribute to the creation of new knowledge.

SLO 6: Critical Thinking

- Students will employ critical thinking to work towards solving problems of the future.

Curriculum Map and Program Structure

For undergraduate degrees: Map out the four-year plan for the expected course sequence, including USP courses, college requirements, and degree requirements. Be sure to notate which courses are existing and which are new. Describe whether each course will be available in Laramie, Casper, other sites, and/or online.

Degree Requirements

HP 1020 First Year Colloquium 1 (COM1)*	= 3 credits
HP 2020 First Year Colloquium 2 (COM2)*	= 3 credits
HP xxxx Intro to Research Methods I*	= 1 credit
HP xxxx Intro to Research Methods II*	= 1 credit
HP xxxx Honors Non-Western Perspective Courses	= 6 credits
HP xxxx Upper Division Interdisciplinary Courses	= 15 credits (see concentrations)
HP xxxx Capstone Seminar Course	= 3 credits
HP xxxx Internship	= 3 credits
Total credits	= 35 credits

*Above, the * indicates prerequisite courses. All students must complete the First Year Colloquium series prior to any upper division course in the concurrent major and Intro to Research Methods I and II prior to Capstone Seminar*

Honors study abroad courses may apply to fulfilling degree requirements

Core Credits: Complete **20** core credits: the first year Colloquium sequence, six non-western credits, two one-credit research methods courses, the capstone seminar, and an internship

Concentrations: Alongside the **20** core credits, choose **15** additional credits from one area
indicates a course that is approved as Honors Non-Western
** indicates a course that is taught on-line*

Environment, Ethics, and Humankind

Amidst a range of global environmental challenges, it has become increasingly critical to understand how human beliefs, values, and imagination shape our relations to the

environment and drive environmental decision-making. Moreover, the complexity of entangled human and environmental issues must be addressed both locally and globally and across disciplines. In this concentration, students will ask: how can interdisciplinary conversations deepen our understanding of human-nature entanglements? How can understanding human values and cultures help us strive towards solutions that prioritize sustainability and social equity?

- Environmental Art*
- Inuit Environmental Dilemmas*#
- Eastern Thought and American Culture#
- Outbreaks and Pandemics*#
- Climate Change and Colonialism#
- Hydro Narratives: Water and Culture in the American West
- Petrocultures: Energy, Climate, and Culture
- The Empire Writes Back#
- Futurism 001*
- Moby Dick
- Engineering, Ethics, and Energy
- Global Public Health Structures on the Brink#
- History of Money
- Indian Short Story#
- Wildlife, Ranching, Resource Extraction – An interdisciplinary approach to figuring out how people, animals, and our environment can coexist
- Wyoming Walkabout
- Global Cities #
- Sisters
- Quitting: What, Why and How?

Health, Policy, and the Body

The study of the human body unites a wide range of academic disciplines. Drawing on fields as diverse as art history, neuroscience, literature, and economics, students in this concentration will gather complex, interdisciplinary methods for examining the body. They will ask, how do other time periods or cultures envision health? What are the material conditions of well-being? How can healthcare today develop compassionate, humane strategies for caregiving in the modern era? Aiming to bring abstract theories and ideals into everyday practice is a shared pursuit of this concentration.

- Picturing Mental Illness*
- Medical Humanities*
- Medicine and Art
- Inuit Environmental Dilemmas*#
- Climate Change and Colonialism#
- Hydro Narratives: Water and Culture in the American West

- History of Diseases
- Outbreaks and Pandemics*#
- History, Philosophy, Methodology and Application of Traditional Asian Martial Arts#
- Chinese Medicine and Models of Healthcare#
- Literature and Medicine
- Neuroscience and Law
- Explorations in Medicine, Science, and Art in Florence, Italy
- The Body: Conceptualizing our Corporeality
- Anger

Technology, Society, and the Future

Society shapes technology; technology in turn shapes society. Disruptive technological advancements have defined epochs of human history. As the development of new technology has accelerated - with information, communication and computation all growing exponentially - the pace of societal change has also accelerated. Each day we face new risks and new opportunities. This concentration challenges students to explore the nexus of technology and society. What does the future hold? How will we navigate new challenges?

- Data Science Deep Dive*
- Futurism 001*
- Climate Change and Colonialism#
- Business Application of Blockchain and Fintech
- Hydro Narratives: Water and Culture in the American West (proposed course)
- Petrocultures: Energy, Climate, and Culture (proposed course)
- Ideation, Innovation, and Invention
- Engineering, Ethics, and Energy
- Mass Media and Collective Consciousness*
- Nanotechnology
- Neuroscience and Law
- Outbreaks and Pandemics*#
- Wildlife, Ranching, Resource Extraction – An interdisciplinary approach to figuring out how people, animals, and our environment can coexist
- Global Cities#
- Secular Stock Cycles

Creativity, Social Justice, and our World

At the root of an Honors degree is interdisciplinary thinking and experience, and in this concentration, students are asked to explore complex questions such as: Where and how do creativity, social justice, and our larger world intersect? In what manner is our everyday life

impacted by social issues and the arts? Where does creativity engage society? How might understanding the relationships between these elements lead to a better world for all? Bringing the past into the present with an eye towards the future is a consistent theme for students choosing this concentration.

- Picturing Mental Illness*
- Film and Social Construction of Race*
- Environmental Art*
- Saffron Silk, and Broadswords*#
- Inuit Environmental Dilemmas*#
- Eastern Thought and American Culture#
- Climate Change and Colonialism#
- Hydro Narratives: Water and Culture in the American West
- The Empire Writes Back#
- Futurism 001*
- Ideation, Innovation, and Invention
- Moby Dick
- Arts in Social Justice
- American Biographies: History and Story
- Indian Short Story#
- Disney Discourse
- Mass Media and Collective Consciousness
- Race and Marketing
- Wyoming Walkabout
- History of U.S. Military Theory and Operations
- Race and Racism
- Shakespeare in England and Italy
- Documentary Photography and Film
- Modern Japanese Society and Culture (study abroad) #
- Race in a Consumer Culture
- Creativity and Making Change
- Free Speech and Censorship
- Music and Identity

Concentration and Course Map

Honors Courses	Environment, Ethics, Humankind	Health, Policy, and the Body	Technology, Society, and the Future	Creativity, Social Justice, and Our World
American Biographies: History and Story				X
Anger		X		
Arts in Social Justice				X
Chinese Medicine and Models of Healthcare #		X		
Climate Change and Colonialism #	X	X	X	X
Creativity and Making Change				X
Data Science Deep Dive *			X	
Disney Discourse				X
Documentary Photography and Film				X
Eastern Thought and American Culture #	X			X
Engineering, Ethics, and Energy	X		X	
Environmental Art *	X			X
Explorations in Medicine, Science, and Art in Florence, Italy		X		
Film and Social Construction of Race *				X
Free Speech and Censorship				X
Futurism 001 *	X		X	X
Global Cities #	X		X	
Global Public Health Structures on the Brink #	X			
History of Diseases		X		
History of Money	X			
History of U.S. Military Theory and Operations				X
History, Philosophy, Methodology and Application of Traditional Asian Martial Arts #		X		
Hydro Narratives: Water and Culture in the American West	X	X	X	X
Ideation, Innovation, and Invention			X	X
Indian Short Story #	X			X
Inuit Environmental Dilemmas * #	X	X		X
Literature and Medicine		X		
Mass Media and Collective Consciousness *			X	X
Medical Humanities*		X		
Medicine and Art		X		
Moby Dick	X			X
Modern Japanese Society and Culture (study abroad) #				X
Music and Identity				X
Nanotechnology			X	
Neuroscience and Law		X	X	
Outbreaks and Pandemics * #	X	X	X	
Petrocultures: Energy, Climate, and Culture	X		X	
Picturing Mental Illness *		X		X
Quitting: What, Why and How?	X			
Race and Marketing				X
Race and Racism				X
Race in a Consumer Culture				X
Saffron Silk, and Broadwords * #				X
Secular Stock Cycles			X	
Shakespeare in England and Italy				X
Sisters	X			
The Body: Conceptualizing our Corporeality		X		
The Empire Writes Back#	X			X
Wildlife, Ranching, Resource Extraction – An interdisciplinary approach to figuring out how people, animals, and our environment can coexist	X		X	
Wyoming Walkabout #	X			X

indicates a course that is approved as Honors Non-Western

* indicates a course that is taught on-line

Sample Student Degree Map: Psychology with an Honors Concurrent Major

Semester	Psychology & Honors Concurrent Majors Honors Concentration in Health, Policy and the Body	Course Credits	Semester Credits
First Year FALL	<ul style="list-style-type: none"> • HP 1020 - First Year Colloquium 1 (COM1) • PSYC 1000 – General Psyc • USP Q – Math 1000/1400 • USP PN (ASG) – ANTH 1300 - Archeology • USP V – POLS 1000 	3 3 3 3 3	15
First Year SPRING	<ul style="list-style-type: none"> • HP 2020 - First Year Colloquium 2 (COM2) • STAT 2050 • USP PN – LIFE 1010 – General Biology • USP H – SOC 1000 – Intro Sociology 	3 4 4 3	14
Second Year FALL	<ul style="list-style-type: none"> • HNW – HP 3152 Inuit Environmental Dilemmas • HP - History of Diseases • PSYC 2000 – Research Psyc • PSYC 2380 – Social Psyc • USP H – COMM 1040 – Intro Human Com 	3 3 4 3 3	16
Second Year SPRING	<ul style="list-style-type: none"> • HNW – HP 3152 Modern Japanese Society & Culture • HP - Medicine and Art • PSYC 2210 – Drugs & Behavior • PSYC 2340 – Abnormal Psyc • SOC 2400 - Criminology 	3 3 3 3 3	15
Third Year FALL	<ul style="list-style-type: none"> • Honors Intro to Research Methods I • HP Picturing Mental Illness • Honors Internship • PSYC 3250 – Health Psychology • (Psyc STEM) KIN/ZOO 2040 – Human Anatomy • (ASD) – SOC 3500 – Sociology of Gender 	1 3 3 3 3 3	16
Third Year SPRING	<ul style="list-style-type: none"> • Honors Intro to Research Methods II • HP Neuroscience and the Law • HP Outbreaks and Pandemics • PSYC 4070 – Motivation • PSYC 3120 – Cognitive Psyc • PSYC 4350 – Psychology of Adulthood 	1 3 3 3 3 3	16
Fourth Year FALL	<ul style="list-style-type: none"> • Honors Capstone Seminar (COM 3) • HP The Body: Conceptualizing our Corporeality • HP Medical Humanities • PSYC 4040 – Cognitive Neuroscience • <i>Optional: HP 4976 Honors Capstone Independent Study</i> 	3 3 3 4 (1-3)	13
Fourth Year SPRING	<ul style="list-style-type: none"> • HP Exploration of Medicine, Science and Art in Italy (<i>summer study abroad</i>) • HP Anger • CNSL 4250 – Fundamentals of Counseling • PSYC 3150 – Moral Development • SOC 3110 – Self and Society • <i>Optional: HP 4976 Honors Capstone Independent Study</i> • <i>Optional: HP Capstone Seminar</i> 	3 3 3 3 3 (1-3) (3)	15
Total			120 credits

Course Descriptions

Provide short course descriptions for new courses, including possible modes of delivery.

The new courses required for this major include a three-course series on research which will be offered both in-person and online. Students may take Intro to Research Methods I or II in either order, but both are prerequisites for the Capstone Seminar.

1. Intro to Research Methods I: This course will explore how a variety of disciplines within the humanities, social sciences, and arts think, refine, analyze, and evaluate research/creative projects to provide students the exposure to amplify their experiences both within their concentration and in their independent research projects. Intro to Research Methods I is a prerequisite for Capstone Seminar.
2. Intro to Research Methods II: This course will explore how a variety of disciplines within the sciences think, refine, analyze, and evaluate research/creative projects to provide students the exposure to amplify their experiences both within their concentration and in their independent research projects. Intro to Research Methods II is a prerequisite for Capstone Seminar.
3. Capstone Seminar: Students will learn to analyze and effectively communicate their capstone projects while collaborating with their peers and capstone mentor to produce a significant work situated in ongoing disciplinary and/or creative conversations, and effectively communicated in writing, on a digital platform, and in public oral presentation.

Assessment Plan

Describe how the learning outcomes outlined above will be met through the proposed curriculum. How will student work be evaluated, and at which points, in the context of the overall assessment of learning outcomes?

The Honors College will build on the current assessment procedure including an Honors College Assessment Committee comprised of faculty and staff within the college to devise, implement, and perform assessment strategies for the major. Both direct and indirect assessment measures will be used to assess the learning outcomes of the Honors College Major. Direct assessment will be achieved through student work and assignments while student exit surveys and interviews will provide indirect assessment measures.

Curriculum Map

The curriculum map below indicates specific program requirements of the major that meet individual learning outcomes. This curriculum map shows where across the curriculum individual components of the major address the learning outcomes of the Honors College Interdisciplinary Inquiry major.

Curriculum Map	Learning Outcomes					
Required Courses/Experiences	Inter-disciplinary Perspectives	Applied Knowledge	Communication Skills	Global Cultural Perspectives	Research or Creative Competency	Critical Thinking
Colloquium		X	X			X
Research Methods		X			X	X
Non-Western			X	X		X
Upper Division	X	X	X			X
Capstone		X	X		X	X
SOAR	x			X		X
Internship	X	X				X
Study Abroad			X	X		X

Learning Outcomes

SLO 1: Interdisciplinary Perspectives

- Students will demonstrate interdisciplinary perspectives by comparing, contrasting, and interpreting the relationships between multiple disciplines.

SLO 2: Applied Knowledge

- Students will apply knowledge and skills, both collaboratively and individually, by utilizing experiential learning.

SLO 3: Communication Skills

- Students will demonstrate effective communication skills using a multitude of platforms for a variety of audiences.

SLO 4: Global Cultural Perspectives

- Students will cultivate an understanding of diversity and the importance of global cultural competence.

SLO 5: Research or Creative Competency

- Students will undertake a coherent research or creative project, service project, community engagement project, or entrepreneurial project to contribute to the creation of new knowledge.

SLO 6: Critical Thinking

- Students will employ critical thinking to work towards solving problems of the future.

Feasibility Study Required Contents:

Overview and Description of Degree or Certificate, Purpose, Strategic Plan Overlay

Describe and outline:

- *The degree's objectives*
 1. To respond to the changing desires and demands of today's student population, many of whom desire more flexibility in their course of studies, clearer pathways to jobs that don't yet exist, and more digital offerings, and to prepare students for life after college with 'real world' problem solving skills that lead to jobs, and/or that make them competitive candidates for graduate programs.
 2. To provide an option for a concurrent degree with an interdisciplinary focus to supplement nearly any discipline-specific degree.
 3. To increase diversity in our student body in the Honors College and attract students who might not normally see themselves as Honors students, i.e., students who are non-traditional, working, parenting young children, and/or dealing with a physical challenge, or are place or site-bound.
 4. To create pathways for highly motivated students to fast-track to graduate programs at UW. Future pathway agreements under discussion include a 3+3 partnership with the College of Law, and a 3+2 partnership with the Master of Public Administration (MPA) program.
 5. **To be an economic investment. This degree will require minimal additional funds to implement and may even be revenue generating for the Honors College.** This degree can be offered with a majority of courses that are already in place and will be taught by Honors faculty and associates who already teach these classes. In addition, the degree may yield new populations of students and increased credit hours from students we already have.
 6. To be affordable. The price of this degree at UW compared to universities in the region will be significantly less. With proper advertising combined with excellent faculty and our program's reputation, we can expect to attract students from across the nation.
 7. To promote and engage with the University of Wyoming's mission and vision. This degree proposal aligns with all four pillars of seeking to be more: Interdisciplinary, Entrepreneurial, Inclusive, and Digital.
 8. To be nationally distinctive. Few comparator institutions, whether regionally or across the country, offer a full interdisciplinary honors major, and none offer it simultaneously online. Offering a degree such as this would help us attract more diverse students.

- *Its fit with the unit's current offerings*

All courses, apart from a new Interdisciplinary Research Methods course, are regularly offered and taught in the Honors College as part of the existing minor. New topics

courses for the Honors College are regularly solicited on an annual basis from across the University and will be selected to support the major's concentrations in both traditional and online modalities. This nimbleness and flexibility within the degree program will serve to make the degree consistently topical, and relevant to the most current grand challenges and job market demands.

- *The rationale for the program, and niche/gap the degree will fill. Why will it appeal to students? To employers? Graduate schools?*

As part of the early research phases for the proposed degree program, the Honors College conducted a preliminary market analysis with Wiley Educational Services and other sources. We learned that multi/interdisciplinary programs are on the rise with increasing employer demand (see Executive Summary of Demand Statistics, p. 22).

The concept of multi/interdisciplinary studies programs includes a variety of program types (e.g., American Studies, Gender and Women's Studies, Science and Technology Studies, etc.). The research indicates a strong and growing student demand for interdisciplinary studies in Honors. The word "interdisciplinary," while debated, primarily denotes an approach "involving two or more academic, scientific, or artistic disciplines." An interdisciplinary degree does just that: it brings interdisciplinary range to bear on a broad range of practical and relevant subjects necessary for developing a complex understanding of learning and society.

While some programs achieve interdisciplinarity by allowing students to take courses from multiple departments, the Honors College seeks to provide synthesis *within* and *across* Honors courses, utilizing faculty expertise to foster new knowledge, research and creative activity that can be used in solving complex issues. The four proposed concentrations center around well-established interdisciplinary inquiries that will synergize well with a wide variety of other majors offered on campus.

In an anecdotal sense, each year we receive queries from high school students, their guidance counselors, and potential transfer students asking about the possibility of "double-majoring" with Honors. As job markets become increasingly competitive, these students look for ways to set themselves apart from their peers. **Nationally, graduate schools and many employers recognize that students who graduate with honors degrees or designations are high achieving, creative, adaptable, and motivated individuals able to think outside the box. These are the kinds of skills and attributes that employers seek.**

While the vast majority of four-year accredited institutions offer some kind of Honors program, surprisingly few institutions nationwide offer concurrent degrees in Honors. Most of our regional and comparator institutions (e.g., U Colorado, CSU, U Montana) offer honors tracks or programs of study with academic partner units (e.g., major in Engineering Honors or Business Honors). In the latter case, Honors students either take

“Honors only” sections of required courses in their home department, or, more typically, take the same courses as non-Honors majors but complete additional requirements. These programs do not offer opportunities to investigate questions as deeply and differently within an Honors-specific college as UW does. We seek to build on our college’s existing excellence in developing the more expansive major course of study. Our proposal – a concurrent major in Honors offered both on campus and fully online and focused on interdisciplinary challenges – has the potential to be pathbreaking. The few institutions in the U.S. that offer standalone Honors majors (e.g., Texas Tech, Ohio University) are not only highly subscribed programs, but they are also innovative, student-centered, experiential, and personalized educational experiences that equip their graduates with the skills they need for their lives beyond college. This is the kind of program we aim to stand up at the University of Wyoming, and offering a concurrent major in Honors Interdisciplinary Inquiry would give us a competitive edge within the region for attracting students. Offering a major would also put us on par with other colleges on campus in providing at least one major in our college.

Recruiting more high-quality students from diverse backgrounds is an important goal for our college, as it is for UW. This degree will allow us to expand our reach and recruit new majors to the Honors College and the university. In particular, we believe that in addition to the in-person offerings, the online option to complete this degree would allow us to reach new audiences. Additionally, our college consistently provides a robust offering of J-Term and summer courses, which can allow for greater flexibility and efficiencies for a student’s successful graduation.

Furthermore, we are in the process of working on several synergies for the degree program to offer fast-track pathways for highly motivated students to continue their studies at the graduate level. Not only will these pathways be a recruiting tool to attract high quality students to Honors, but they also create cross-campus partnerships that assist some of UW’s graduate programs to recruit top students as well. Current proposed pathways include a 3+3 partnership with the College of Law, and a 3+2 partnership with the Master of Public Administration (MPA) program.

- *How will the degree support UW’s Mission?*

The scope of our Honors degree program aligns with all four points of UW’s mission as articulated in the current Academic Plan:

- **Graduate students who have experienced the frontiers of scholarship and creative activity and who are prepared for the complexities of an interdependent world.**

With a stimulating and diverse curriculum, a thematic focus on interdisciplinarity, and a capstone experience integrated into the course of study, this degree program will prepare students to think critically and creatively about the challenges the world faces and how our students can be agents of change; not only providing them with the ability to adapt to change, but to be the **change-makers**.

- **Cultivate a community of learning energized by collaborative work among students, faculty, staff, and external partners.**

The Honors College already has a strong collaborative spirit – across campus and beyond. The establishment of “pathways” with campus partners in the College of Law and the Master of Public Administration creates an even more collaborative community and gives Honors students the chance to fast-track to graduate programs at UW. The Honors College continues to administer an extensive **Community Internship Program** that places students at the forefront of the workplace while engaging in their academic pursuits (see list of external partners [HERE](#)).

- **Nurture an environment that values and manifests diversity, internationalization, free expression, academic freedom, personal integrity, and mutual respect.**

This environment is at the core of the Honors College ethos. By establishing a concurrent major in Honors that is offered both on campus and fully online, we are “walking the walk,” and seeking to attract and include diverse student populations in our Honors community. Another way that Honors is currently valuing economic diversity is through funding those important, but expensive academic experiences -- like locating paid internships and offering study abroad scholarships. Currently, the Honors College is supporting 18 paid internships with community partners. We are standing up an impressive array of faculty-led study abroad courses within the College, positioning ourselves as a **leader on campus in internationalization**. In addition, Honors supplements the Cheney Fund with funds for all students wishing to have a study abroad experience.

- **Promote opportunities for personal health and growth, physical health, athletic competition, and leadership development for all members of the university community.**

We value learning beyond the classroom, and we believe that these experiences enrich students’ education in meaningful ways and form the foundation for leadership development. At UW, the SOAR program organizes students’ approach to the co-curricular events, trainings, and opportunities that

enhance their college experience. Thus, we have fully integrated the UW-wide SOAR co-curricular program into the Honors College minor through an Honors-specific customized badge system. Completing the Honors SOAR badge is now a requirement for all Honors minors. We will extend this requirement to the major.

The proposed degree also aligns with Goals 1 and 2 of *Breaking Through*, the 2017-2022 Strategic Plan.

GOAL 1 - Driving Excellence

- **Foster entrepreneurship and collaboration in research and teaching [...] Fully recognize the role of interdisciplinarity and integration in teaching, research, service and outreach in performance evaluations and tenure and promotion decisions.**

The Honors College has interdisciplinarity at our core, both in our curriculum, and in all the scholarly and co-curricular activities we undertake.

- **Achieve consistently excellent teaching and mentoring that give students the knowledge, ability, determination, and innovation to meet tomorrow's challenges with sustainable solutions [...] Incentivize revision and development of courses and curricula that includes technology-enhanced learning, online delivery and high-impact teaching practices.**

With a dedicated advising team in the Honors College that includes a career counselor, we are equipped to welcome new students – and more of them – into our new major. Moreover, with our current minor, and the proposed new degree program offered fully online as well as on campus, we are embracing innovative teaching practices and meeting students' demands for flexible learning environments, including site-bound and distance education students. Finally, our courses and our capstone requirement all tend to nurture the deep mentor-mentee relationships between faculty and students that contribute to student success.

GOAL 2 - Inspiring Students

- **Engage and graduate well-rounded and creative thinkers, capable of meeting unpredictable and complex challenges.**

With a thematic focus on interdisciplinarity within a concentration of their choice, this degree program presents an exciting academic journey for students who want to make a difference in the world. The applied aspects of their studies, including the interdisciplinary Research Methods courses, co-curricular classroom requirements via SOAR, internship, and the Capstone

Experience, will allow students to put theory into practice and solve real-world problems.

- **Build pathways to academic, cultural, professional, and entrepreneurial opportunity and leadership at undergraduate and graduate levels.**

As previously mentioned, the Honors College administers an extensive professional **Community Internship Program** that places students at the forefront of the workplace while engaging in their academic pursuits (see list of external partners [HERE](#)). These are all *paid* internships, supported in some cases by a partnership between the Honors College and the Wyoming Department of Workforce Services, and in some cases solely by the Honors College. The proposed major also continues the college's efforts to establish "pathways" to graduate education for highly motivated students. Explorations of current "pathways" with the College of Law, the Master of Public Administration, and potentially the Master of Business Administration will create an even richer community by giving Honors graduates the chance to fast-track to graduate programs at UW. At the same time, these graduate programs will have access to top students.

- *How the Academic Program aligns with Honors College's strategic plan?*

The proposed major supports the four major goals in the Honors College's strategic plan.

Goal 1: Develop and Implement Strategies to Recruit, Enroll and Retain High-Achieving Students

By offering an excitingly innovative major unlike anything available at our comparator institutions, we will enhance our ability to recruit high-caliber students, serve them well, and hence retain them. With the university's move to block tuition, our concurrent major is well suited to be a value add for many students and an intriguing proposition to students moving forward that will set them apart from their peers only achieving a disciplinary major.

Goal 2: Nurture Comprehensive Curriculum Enhancement and Innovative Educational Opportunities

The proposal expands our curriculum, particularly regarding research methods. It develops new opportunities for students and deepens existing ones. It expands our commitment to educational diversity, and it will continue Honors' practice of linking our courses with USP requirements to enable students to progress efficiently toward their degrees. The very fact that an Honors major is so uncommon nationally offers our students the opportunity of further educational distinction.

Goal 3: Expand Undergraduate Research, Creative Work and Experiential Learning Opportunities for Students

The proposed major scales up classroom support for undergraduate research and creative endeavors, through one- and three-credit research methods classes. The plan also offers fast-track pathways to graduate school. The plan additionally extends the Honors College's commitment to experiential learning opportunities through the co-curricular SOAR requirement and the promotion of internships and study abroad opportunities. Future innovative internship relationships with *Impact 307* and the *Ellbogen 50K Competition* will be explored. A list of current Honors College internship partners in 2021-22 follows:

Honors Internship Partners:

- [Center For Entrepreneurship & Innovation](#)
- [City Of Laramie](#)
- [Cyberwyoming](#)
- [Interfaith](#)
- [Laramie Main Street Alliance](#)
- [Leadership Wyoming](#)
- [Native American Summer Institute](#)
- [Science Loves Art](#)
- [UW Art Museum](#)
- [United Way Of Albany County](#)
- [UW Major Scholarship Initiative](#)
- [UW Science Communication Initiative](#)
- [UW Tech Transfer And Research Products Center](#)
- [Wyoming State Science Fair](#)

Goal 4: Develop the Infrastructure to Support the Honors College Strategic Plan

This goal was designed to help Honors develop a college infrastructure. The proposal for a new major further enhances the college's infrastructure. Specifically, we will continue to build our teaching faculty through our Clay Fellows program, and we will continue to develop our advising capacity through advising students on new pathways. We will need to scale up our assessment and marketing to accommodate the needs of a major. We will strengthen partnerships with other colleges and programs via advising and curricular agreements. Finally, simply having a major will put Honors more on the same footing as other UW colleges.

Evaluation

Explain how the program will be evaluated. Will you use exit surveys of graduates, employer surveys, mid- or end-of-program feedback through focus groups or surveys, etc.? Remember that by policy, all new degree will be evaluated within 5 years of startup, so this will help you in gathering artifacts upon which that evaluation can be based.

The evaluation of the Honors College major will focus on the 1) quality of the education we deliver as well as the 2) size and growth of major (measured yearly) through the following criteria:

- **Mid-point Surveys**

These mid-point surveys will be administered in the Intro to Research Methods I & II courses to gauge students' continued interest, progress, and perceived value in the design of the major.

- **Entrance and Exit Surveys**

These surveys and or interviews will consist of a pre/post assessment of student academic interest and satisfaction. These surveys will occur upon arrival to the major, in the final semester of their graduation, and in a follow up of alumni five years after graduation.

- **Data collection**

We will track the number of majors enrolled in the degree from year to year and pertinent demographic and academic information (i.e. Ask students questions like: new first-year students or shift from the minor? Standalone major vs. Concurrent?)

Substantive Change Determination

Higher Learning Commission (HLC), UW's regional accrediting agency, must approve all substantive changes to UW's offering. HLC considers substantive change as the addition of a program (degree or certificate/credential level) not previously included in the institution's accreditation, usually judged to be a program that is a significant departure from normal offerings, the addition of a program with 50%+ new coursework required, or the addition or change to an existing program which will be delivered 50%+ through alternative (hybrid, online) delivery. Substantive change may also be defined as a new program which does not meet the above guidelines, but which requires a significant amount of financial investment to be made. Please contact the HLC Accreditation Liaison Officer (currently Steve Barrett, SteveB@uwyo.edu) to make this determination.

New Resources Required

Describe new resources required.

- Faculty and instructional staffing
 - No new faculty or staffing is required. A combination of the core Honors College faculty and the newly established Clay Fellows instructors, (selected annually from across campus) will be sufficient to deliver the courses).
- Program administration and staff support
 - All program administration and staff support are currently in place to

support the new degree.

- Technology
 - Online delivery technology is currently in place, thanks to the past two years of online course delivery due to Covid.
- Library and digital resources
 - With the hiring of the McMurray Excellence Librarian, the Honors College is well-situated and resourced in Library and digital resources
- Marketing
 - A small increase in the market budget may be required to advertise, recruit and roll out the new degree program. The Honors College is prepared to absorb this increase internally.

Executive Summary of Demand Statistics

Describe and outline: Market area and primary target markets, Educational market and student demand statistics, including peer comparisons of the size of enrollment, completions, and size trajectory (growth, decline) of comparator programs, Employment trends and projections given core competencies of the degree or certificate, Graduate salary trends and other post-completion trends.

Key Takeaways from Research

- The number of multi/interdisciplinary programs has increased 175% nationwide from 2012-19.
- 89% of interdisciplinary majors have a clear destination following graduation, including employment, advanced degrees, internships, or entrepreneurial projects.
- Most interdisciplinary majors (59%) are employed upon graduation and earn an average starting salary of \$48,000.
- 42% of interdisciplinary degree holders in the workforce today hold an advanced degree.
- The Learning Outcomes of the proposed major map onto core aptitudes and career competencies desired by today's employers, including skills like judgement, critical thinking, and problem solving.

Sources of Data

For a more complete picture of the educational market, we expanded beyond Gray's Data to survey a variety of authoritative sources. We have compiled demand statistics using [U.S. Bureau of Labor Statistics](#), the [National Association of Colleges and Employers](#), and [Data USA](#), a joint project by Deloitte and MIT that compiles data from across several government agencies. These sources allow us to analyze many kinds of interdisciplinary majors and the employment landscapes they enter. We also draw on a market analysis commissioned from Wiley Educational Services to study the growth of interdisciplinary majors in higher education. Finally, we looked at a peer institution, Texas Tech, which offers a stand-alone, interdisciplinary Honors major that is unlike anything available at our geographical neighbor institutions (CSU, U Colorado, or U

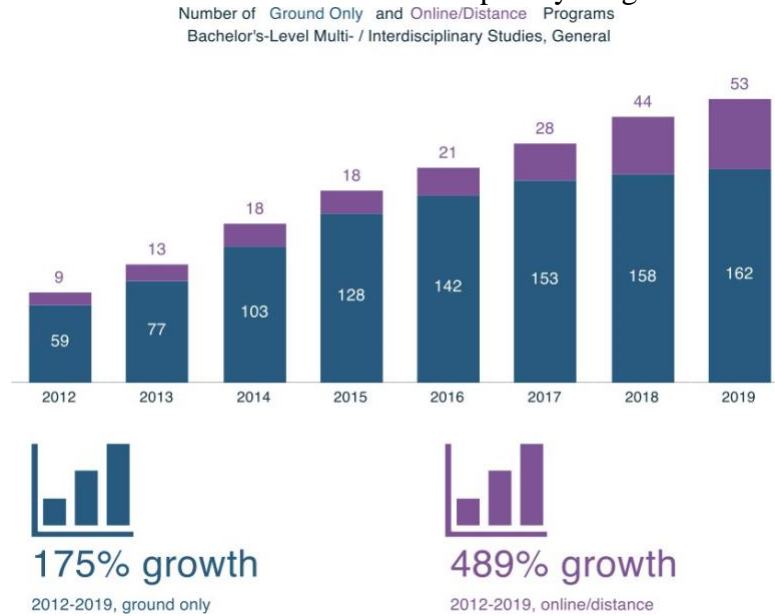
Montana).

Market Area and Primary Target Markets

According to a preliminary market analysis from Wiley Educational Services, since 2010 there has been a steady rise nationwide (10% increase yearly) in the number of graduates from multi/interdisciplinary studies programs (from 171 reporting institutions).

Correspondingly, the number of multi/interdisciplinary studies programs nationwide has grown 175% (from 68 programs in 2012 to 215 programs in 2019). Additionally, 25% of these programs are offered fully online, as student demand for distance-only interdisciplinary studies programs has increased a whopping 489% since 2012. For these reasons, we expect to be nationally competitive in attracting students who are looking for innovative interdisciplinary programs and immersive Honors experiences. Additionally, with a fully online option, we can attract site-bound and non-traditional students from across the country.

Figure 1: Growth of Online and In-Person Interdisciplinary Programs from 2012-2019



Visualization provided by Wiley Educational Services; Research is Proprietary and Confidential

Educational Market and Peer Institutions

As stated above, our interdisciplinary Honors major would be highly distinctive, and even one-of-a-kind, in offering a fully online option. None of our peer institutions in the region offer equivalent interdisciplinary concurrent Honors majors. At the national level, the most similar program is Texas Tech's major in Honors Sciences and the Humanities. This program offers four specific concentrations tailored to students' desired career paths. Overall, they have 1700 Honors students, with 9-12 core faculty members, and 80 graduates per year.

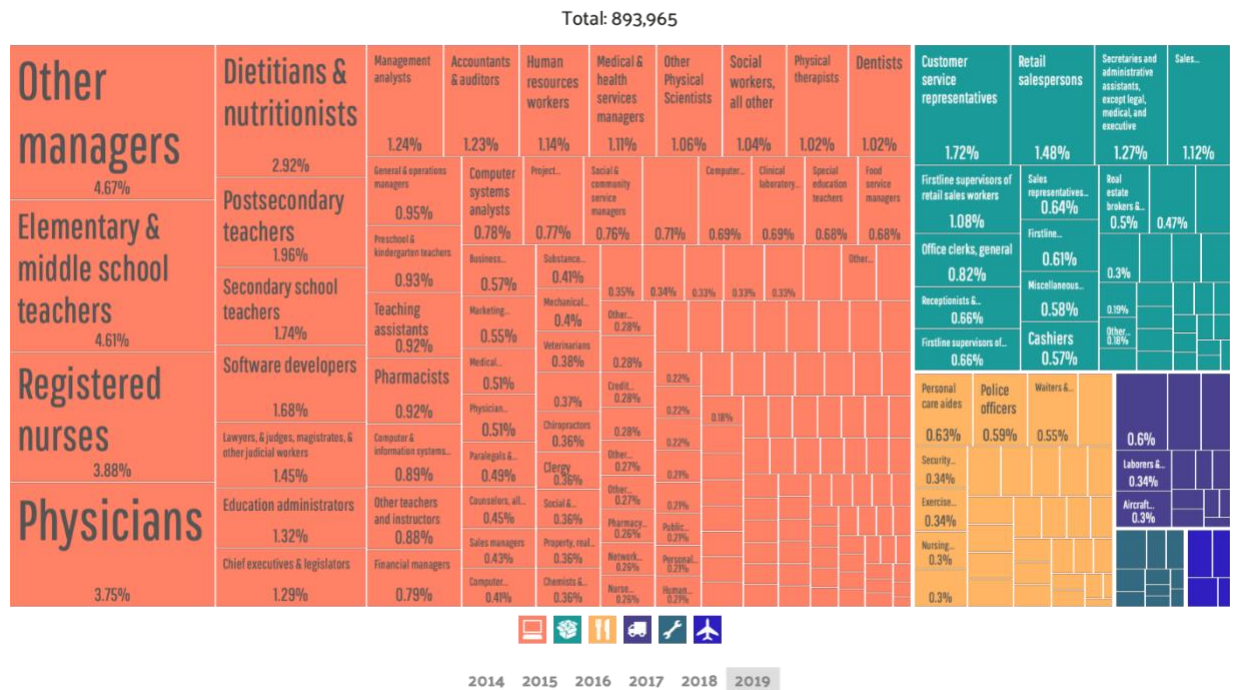
Employment and Salary Trends for Interdisciplinary Majors

Data USA reports that the broad field of Interdisciplinary Studies has grown across the country, with 109,814 degrees awarded in 2019, a 5.87% increase from the year before. Currently there are 940,066 people in the US workforce who possess an interdisciplinary degree, a number that is also on the rise (increasing by 5.18% from 2018 to 2019). The average salary for workers with interdisciplinary majors, across all stages of career, is \$78,616.

Interdisciplinary majors graduate with a variety of post-college plans, according to surveys run by The National Association of Colleges and Employers (NACE). Nationally, 89% of interdisciplinary majors have an established next step upon graduation, a number on par with the rates for all graduating seniors. Most interdisciplinary majors (59%) are employed upon graduating, with an average starting salary of \$48,800. Another 10% have other confirmed plans, such as internships, volunteer positions, or entrepreneurial projects. Additionally, 20% of interdisciplinary majors pursue graduate degrees immediately after college. In fact, the Occupational Outlook Handbook, a publication of the U.S. Bureau of Labor Statistics, reports that 42% of interdisciplinary studies majors in the workforce today hold an advanced degree. Our major is designed to build pathways to all of these possible futures, including through paid internships that help students build their work resumes and our partnerships with UW's own graduate programs.

In terms of careers, interdisciplinary majors pursue a wide variety of jobs. As the visualization below reveals, the most common careers for interdisciplinary majors are physicians, nurses, teachers, and managers, yet these top five career outcomes together account for less than 17% of the overall total. The other 83% of interdisciplinary majors currently in the workforce are spread across dozens of industries and vocations, from nutritionists (2.92%) to software developers (1.68%) to social workers (1.04%). In the face of today's ever-shifting labor market, these findings show that interdisciplinary degrees offer much-needed flexibility in career options.

Figure 2: Interdisciplinary Majors' Chosen Occupations in 2019
[Click here to enlarge and interact with data visualized below:](#)



Visualization by [Data USA](#), Using Information from the Census Bureau

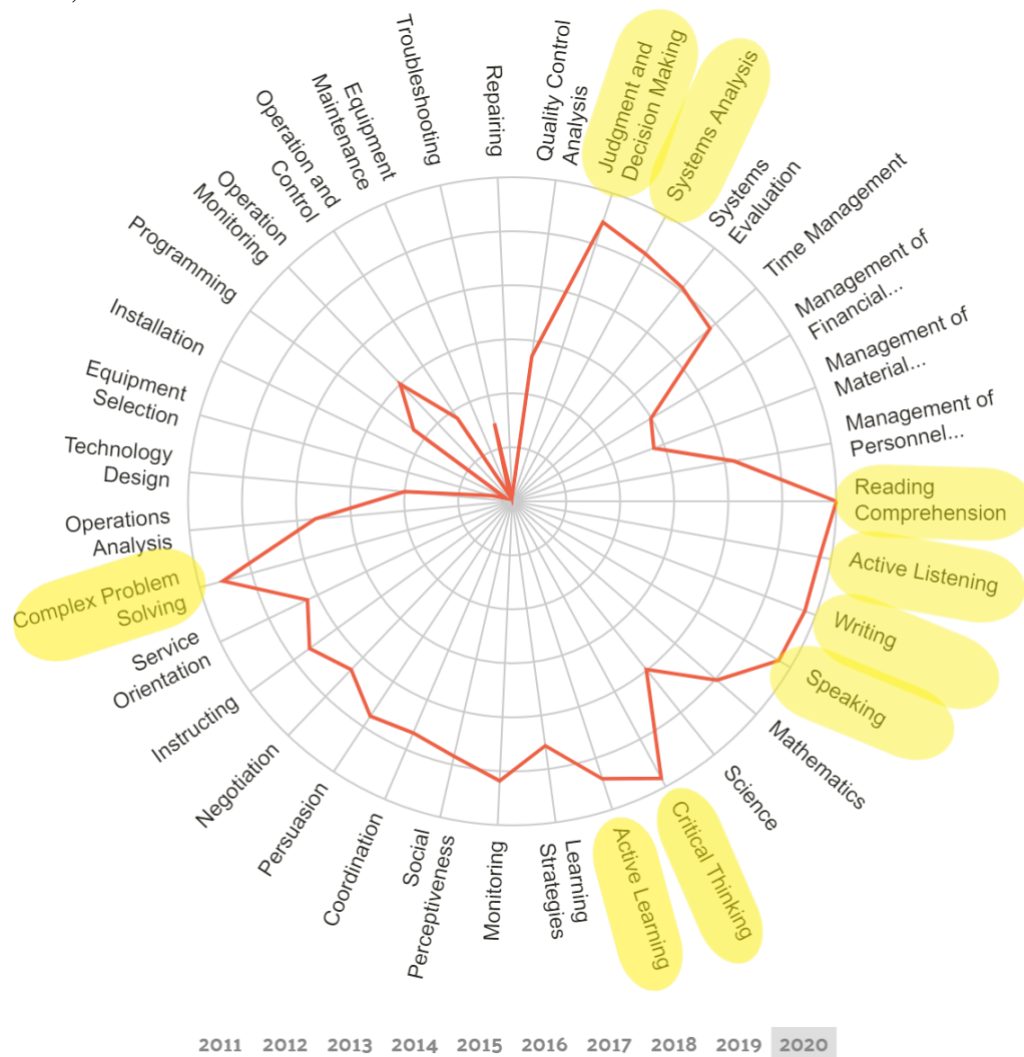
Employability

Core Competencies/Skills

The learning outcomes of this major are targeted to address key skills desired by employers. O*NET, a research database run by the U.S. Department of Labor, tracks the specific skills interdisciplinary studies majors report needing to compete in today's labor market. The Honors Interdisciplinary Inquiry concurrent major tackles these skills directly, as seen in our Learning Outcomes, so that students who graduate from this program have in-demand skills that can appeal to a wide variety of employers. According to O*NET, the most in-demand skills for interdisciplinary majors include:

- Reading Comprehension (Learning Outcomes 1, 2, 5)
- Critical Thinking (4, 6)
- Complex Problem Solving (1, 2, 4, 5, 6)
- Systems Analysis (1, 4, 6)
- Writing/Speaking/Listening (2, 3, 5, 6)
- Judgement and Decision Making (4, 5, 6)

Figure 3: The Relative Need for Specific Job Skills, as reported by Employed Interdisciplinary Majors, With Highlights of Skills Related to Our Major’s Learning Outcomes, 2020



Visualization by [Data USA](#), Using Information from O*Net Online, A Database From the US Department of Labor

Important Student Attributes

In designing this major, we consulted data about in-demand workforce skills. The NACE Job Outlook 2021 Spring Update reports “attributes” (skills gained and practiced in college) which are most sought after by employers when they evaluate the resumes of college graduates for possible employment.

In the graph below, we capture the top ten attributes desired by at least 60% of employers in the survey (left column). Additionally, we have mapped our Learning Outcomes (specified in the right column) directly to these desired skills. In most cases, these employee attributes are cultivated through more than one of our Learning Outcomes.

Attributes Employers Seek on a Candidate’s Resume (Top 10 of 20), data from NACE

ATTRIBUTE	PERCENT OF RESPONDENTS	Honors Major Learning Outcome
Ability to work in a team	81.0%	3, 4, 6
Problem-solving skills	79.0%	1, 2, 4, 6
Analytical/quantitative skills	76.1%	1, 2, 5, 6
Communication skills (verbal)	73.2%	1, 3, 4, 6
Communication skills (written)	72.7%	1, 3, 4, 6
Initiative	67.8%	5
Leadership	67.8%	5, 6
Technical skills	67.8%	1, 2, 5
Flexibility/adaptability	65.9%	1, 2, 6
Strong work ethic	65.4%	all

Influence of Student Attributes

Our research revealed that, if candidates are “equally qualified,” employers lean on internships (within the organization and within the industry) as the most influential factor to select the best candidate (see table below). As discussed above, all Honors students have the opportunity to participate in unique Honors internships in the community of Laramie, around the state of Wyoming, or in their hometown and internships will be mandatory part of the major. These internship opportunities are discussed above, and more information can be found here: www.uwyo.edu/honors/internships

NACE Job Outlook 2021 Spring Update

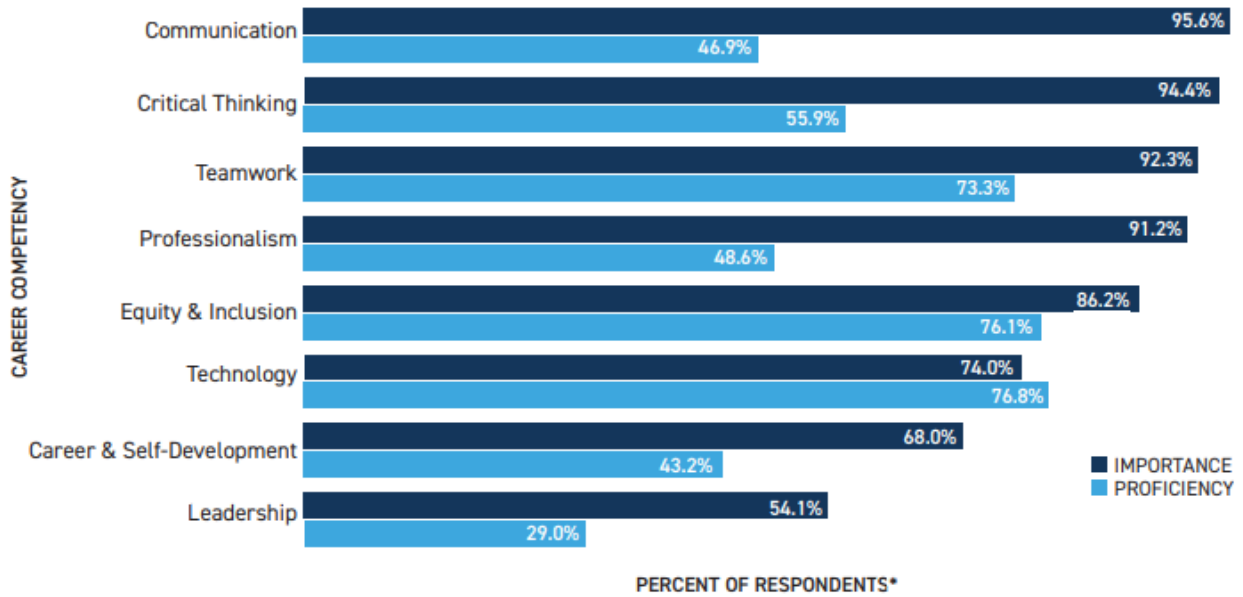
Influence of Attributes (Top 7 of 14)

ATTRIBUTE	2021 AVERAGE INFLUENCE RATING*
Has completed an internship with your organization	4.5
Has internship experience in your industry	4.3
Major	3.8
Has held leadership position	3.6
Has general work experience	3.6
Has been involved in extracurricular activities (clubs, sports, student government, etc.)	3.4
High GPA (3.0 or above)	3.2

*5-point scale
where 1=No influence at all
2=Not much influence
3=Somewhat of an influence
4=Very much influence
5=Extreme influence.

Additionally, the most recent NACE 2023 Job Outlook Report continues to affirm employers are looking for students to possess career readiness competencies upon graduation; competencies such as communication, critical thinking, teamwork, professionalism, and equity and inclusion. However, there is a demonstrated gap between the skills employers are seeking and the competency demonstrated by students at the time of graduation. The learning outcomes for the Honor Interdisciplinary Concurrent Major will provide opportunity for UW students to bridge this gap between employer needs and student competencies and will therefore create more marketable students upon graduation.

FIGURE 46: IMPORTANCE VS. PROFICIENCY ON CAREER READINESS COMPETENCIES, BY PERCENT OF RESPONDENTS



*The percentages corresponding to "importance" represent, among all responding employers, the percentage that, on a five-point scale, indicated that the respective competency was either "very important" (4) or "extremely important" (5) for college graduates to have to enter their workforce. The percentages corresponding to "proficiency" represent, among all responding employers, the percentage that, on a five-point scale, rated recent graduates either "very" (4) or "extremely" (5) proficient in the respective competency.

In summary, the Honors Major Learning Outcomes and unique internship opportunities will align our graduates to be prepared for a competitive job market, develop the skills and attributes most desired by potential employers, and help distinguish them from other qualified candidates.

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: MS in Nutrition and Dietetics QuickStart (4+1), Ahern/Keith

- PUBLIC SESSION
- EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
- No

FOR FULL BOARD CONSIDERATION:

- Yes

[Note: If yes, materials will also be included in the full UW Board of Trustee report.]

- No

- Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

The proposed M.S. program will be part of a quick-start (4+1) program delivered by the Human Nutrition and Food faculty in the Department of Family and Consumer Sciences, in collaboration with the College of Health Sciences. The accredited program will prepare entry-level Registered Dietitian Nutritionists (RDNs) to practice in areas of clinical, community/public health, and foodservice nutrition. This degree would allow students to complete their Bachelor of Science, Master of Science, and Dietetic Internship in a time-efficient manner all through the University of Wyoming (UW). This program would move UW towards the forefront of dietetic education standards and prepare graduates for immediate job placement as RDNs in the state of Wyoming, nationally, and globally.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

University of Wyoming Regulation 2-119 requires that the Board approve all new degree programs and lays out the process for that approval. The Academic and Student Affairs Committee will report to the Board on recommended action for approval of the new degree program.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Consideration for approval of the Request for Authorization for the MS in Nutrition and Dietetics.

PROPOSED MOTION:

“I move that the Request for Authorization for the MS in Nutrition and Dietetics be approved for full board consideration.”

UNIVERSITY OF WYOMING

Office of Academic Affairs

1000 E. University Avenue
Dept. 3302, 312 Old Main
Laramie, WY 82071
307.766.4286 • fax: 307.766.2606

April 26, 2023

Board of Trustees:

This letter serves as a Letter of Commitment for a new Master of Science degree in Nutrition and Dietetics to be offered by the Department of Family and Consumer Sciences, College of Agriculture, Life Sciences, and Natural Resources. The accredited degree program will prepare entry-level Registered Dietitian Nutritionists (RDNs) to practice in areas of clinical, community/public health, and foodservice nutrition.

Needs

In 2024 the credentialing agency for Registered Dietitian Nutritionists (RDNs) will require a master's degree before students can take the national RDN credentialing exam. To remain competitive with peer institutions and attract quality students, as well as to be ready to produce students who can sit for the RDN exam, the UW Program in Nutrition and Dietetics program must move away from an undergraduate program and toward a 4+1 ("QuickStart") master's degree. Nationally, the U.S. Bureau of Labor Statistics predicts that the number of jobs for registered dietitians and nutritionists will increase by 11% between 2020 and 2030.

Requirements

30 credit hours are required for this M.S. degree. As a 4+1 QuickStart, 6 credit hours will be double counted for both the undergraduate degree and the M.S. The M.S. is being proposed here as a new degree program, while the undergraduate degree part of the 4+1 QuickStart is the B.S. in Human Nutrition and Food, which was previously approved by the Board.

Resources

Currently, the Department of Family & Consumer Sciences has 2 tenure-track faculty and 1 assistant lecturer in the area of human nutrition and food. The new M.S. program will need an additional faculty line as well as 3 temporary clinical internship coordinators, one temporary community nutrition internship coordinator, and one temporary food service coordinator position. Additionally, once the program is up and running, it will require a single (1 FTE) staff position to support the program and its students. The College of Agriculture, Life Sciences, and Natural Resources has requested one faculty line in its FY24 CPM request (for hire in FY25). The additional resources will be covered by the revenue generated from the program beginning in its third year, with the deficit in the first two years of the program to be covered by the college and department.

Total resources requested: \$0 from the Board, \$92,352 in salary and employee benefits for a single faculty line has been requested as part of Central Position Management.

Timeline

The present implementation timeline is designed to enable students to enroll in this degree program in the Fall 2025. Please see the addendum attached to the proposal.

Campus Review

I affirm that the university community, including the Executive Team, Deans and Directors, Faculty Senate, Staff Senate and ASUW, have been provided the opportunity to review and present feedback on the proposed degree program.

Best,

A handwritten signature in black ink, appearing to be 'K. Carman', written in a cursive style.

Kevin R. Carman
Provost and Executive Vice President



College of Agriculture, Life Sciences and Natural Resources
Family and Consumer Sciences
Dept. 3354 • 1000 E. University Avenue • Laramie, WY 82071
(307) 766-4145 • fax (307) 766-5686 • www.uwyo.edu/fcs

April 25, 2023

Addendum to FGM Feasibility Study – Dietetics

Board of Trustees,

Based on feedback received during the campus review of our FGM Feasibility Study for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics, we have created a revised curricular table and list of courses that clarifies which courses are new and which are revisions of existing courses. These revisions are included below.

In addition, we would like to provide an update on our proposed timeline. After this feasibility study was submitted for review, the Didactic Program in Nutrition and Dietetics (DPND) Director Megan Skinner took another position in November 2022. We are happy to report that we have hired an excellent new DPND Director who will start Fall 2023. However, due to the transition in directors, we are not able to have our ACEND Candidacy for Accreditation site visit in Fall 2023, as originally planned. Instead, our site visit will occur in Fall 2024, with accreditation and our first cohort to begin Fall 2025.

Thank you,

Christine Wade
Department Head

Curriculum Map and Program Structure

Below is the proposed curriculum map for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics, which includes USP courses, college requirements, and degree requirements. The program follows 4+1 requirements and includes at least 120 undergraduate credits, 30 graduate credits, and no more than 6 dual listed credits for a total of at least 150 university credits. New courses and delivery options are also noted.

Nutrition & Dietetics, Quick-Start (4+1) BS/MS

Course Prefix	Course Number	Course Title	Credit Hours	USP	New?	Delivery
Year 1 Fall (Semester 1)						
	1XXX	USP First-Year Seminar	3	FY		
ENGL	1010	USP Communication 1	3	C1		
FCSC	1141	Principles of Nutrition	3			Laramie, online
MATH	1400	College Algebra	3	Q		
LIFE	1010	General Biology	4	PN		
Credit hours subtotal:			16			
Year 1 Spring (Semester 2)						
CHEM	1020	General Chemistry I	4	PN		
FCSC	1410	Scientific Study of Food	3	PN		Laramie
FCSC	1411	Scientific Study of Food Lab	1			Laramie
POLS	1000	American and Wyoming Government	3	V		
PSYC	1000	General Psychology	3	H		
SOC	1000	Sociological Principles	3	H		
Credit hours subtotal:			17			
Year 2 Fall (Semester 3)						
CHEM	1030	General Chemistry II	4	PN		
FCSC	2141	Nutrition Controversies	2			Laramie, online
MOLB	2021	General Microbiology	4			
STAT	2050	Fundamentals of Statistics (may sub STAT 2070)	4			
HLED	1006	Personal Health	3	H		
Credit hours subtotal:			17			
Year 2 Spring (Semester 4)						
CHEM	2300	Intro to Organic Chemistry (may sub CHEM 2420)	4			
FCSC	2200	Professionalism and Communication	3	C2		Laramie, online
LIFE	3050	Genetics	4			
HLED	3020	Community and Public Health	3			
FCSC	2XXX	Life Cycle Nutrition I – Childhood/Adolescence	2		New	Laramie, online
Credit hours subtotal:			16			

Year 3 Fall (Semester 5)

MOLB	3610	Principles of Biochemistry	4		
KIN	2040	Human Anatomy	3		
KIN	2041	Human Anatomy Lab	1		
ENGL	4010	Technical Writing in the Professions (or sub Scientific Communication ZOO/BOT 4100/4101)	3	C3	
MGT	3210	Management and Organization	3		
Credit hours subtotal:			14		

Year 3 Spring (Semester 6)

FCSC	3142	Life Cycle Nutrition II – Adults/Older Adults	2	Revised	Laramie, online
ZOO	3115	Human Systems Physiology	3		
MOLB	4100	Clinical Biochemistry	4		
FCSC	3145	Sports Nutrition & Metabolism	3		Laramie, online
FCSC	3150	Therapeutic Foods	3	Revised	Laramie
Credit hours subtotal:			15		

Year 4 Fall (Semester 7)

FCSC	4145	Advanced Nutrition and Metabolism	4		Laramie, online
FCSC	4XXX	Professionalism in Dietetics	3	Revised	Laramie, online
FCSC	3152	Food Management and Production	3	Revised	Laramie
		Elective	3		
Credit hours subtotal:			13		

Year 4 Spring (Semester 8)

FCSC	4XXX	Community and Public Health Nutrition	3	Revised	Laramie, online
FCSC	4044	Life Cycle Nutrition III – Maternal/Infant	3	Revised	Laramie, online
FCSC	4147	Nutrition and Weight Control	3		Laramie, online
FCSC	4XXX	Foodservice Management and Leadership Internship	3	New	Laramie, online
Credit hours subtotal:			12		

Year 4 Summer

FCSC	5XXX	Community Nutrition Internship	6	New	Laramie, online
Credit hours subtotal:			6		

Year 5 Fall (Semester 9)

FCSC	5210	TN1: Advanced Nutrition Assessment	4		Laramie, online
STAT	5050	Statistical Methods in Biological Sciences	3		Laramie, online
KIN	5085	Research Methods	3		Online
HLSC	5990	Justice, Equity, Diversity, and Inclusion in STEM and Health Sciences	1		Online
FCSC	5XXX	Clinical Nutrition Internship I	3	New	Laramie, online
Credit hours subtotal:			14		

Year 5 Spring (Semester 10)

FCSC	5220	TN2: Clinical Conditions and Medical Nutrition Therapy	4		Laramie, online
FCSC	5XXX	Therapeutic Nutrition Counseling	2		Laramie, online
FCSC	5XXX	Clinical Nutrition Internship II	5	New	Laramie, online
FCSC	5XXX	Dietetics Capstone	2	New	Online
Credit hours subtotal:			<u>13</u>		
Total Credit Hours:			<u>153</u>		
Undergraduate: 120		Graduate: 33			

Course Descriptions

For all new (denoted with XXX) or revised (carry an existing CRN) classes, a CARF will be submitted to either create or update the following courses. Course descriptions for all existing FCSC required courses can be found below in Table 1.

Proposed new courses in program:

FCSC 2XXX Lifecycle Nutrition I: Childhood/Adolescence Nutrition (2). Encompasses childhood and adolescent nutrition requirements, physiological changes, and social issues.

FCSC 5XXX Dietetics Capstone (3). The capstone course of the program focuses on resume building, career exploration, job placement preparation, and RDN exam preparation.

FCSC 5XXX Food Service Management Internship (3). A food service management internship/practicum that applies the concepts of institutional food service systems.

FCSC 5XXX Community Nutrition Internship (6). A guided internship/practicum where students will obtain first-hand experience working with local community nutrition organizations and leaders. Experiences will include nutrition education and curriculum development, program planning and management, and community needs assessments.

FCSC 5XXX Clinical Nutrition Internship I & II (3, 5). A hospital-based internship/practicum divided into three corresponding periods where students work under the direct supervision of RDNs in clinical settings administering Medical Nutrition Therapy to patients with a variety of clinical conditions.

Proposed revised courses in program:

FCSC 3142 Lifecycle Nutrition II: Adults/Older Adults Nutrition (2). Studies nutrition requirements in adults and older adults as influenced by physiological changes with aging and the impact of nutrition and healthy lifestyle on prevention and treatment of age-related conditions, diseases, and social issues.

FCSC 4044 Lifecycle Nutrition III: Maternal/Infant Nutrition (3). Addresses nutrition requirements prior to and during pregnancy and lactation and continuing through infancy and the physiological and endocrine changes influencing such requirements. Discusses dietary patterns and practices and the importance of healthy lifestyles during these periods for disease prevention and treatment.

FCSC 3150 Therapeutic Foods (3). Addresses wide ranging introductory topics in areas of food service and clinical nutrition as well as cultural awareness relating to food and eating practices.

FCSC 3152 Food Management and Production (3). Examines food management concepts such as the service of safe food, modified menu development, and understanding of federal food regulations for food and nutrition labeling.

FCSC 4XXX/5XXX Community Nutrition (3) (previously FCSC 3147). Project based class providing students with competencies to assess factors that influence the nutritional status of the population; conduct community assessments; and design, implement, and evaluate public health nutrition programs.

FCSC 4XXX Professionalism in Dietetics (3) (previously a special problems 4106 course). This course will prepare students for their internship experiences, focusing on how to engage ethically, meaningfully, and professionally with communities and preceptors.

March 16th, 2023

TO: James Ahern, AVP For Graduate Education
FROM: Kam Ng, Graduate Council Chair
SUBJECT: Feasibility Study for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics

The University of Wyoming Graduate Council completed its review of the feasibility study for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics on Wednesday, March 8th, 2023. An electronic vote was subsequently completed by 5 pm of Friday, March 10th, 2023. The members of the Graduate Council collectively support the proposal. Thirteen members of the Graduate Council voted – with one member voted against and no vote received from one member – in favor of the proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics. If the Graduate Council can be of further service in this matter, please feel free to correspond with me accordingly.

Sincerely,

A handwritten signature in black ink, appearing to read "Kam Ng" with a stylized flourish at the end.

Kam Ng, Ph.D., P.E.
Provost Term Professorship Associate Professor
Department of Civil and Architectural Engineering and Construction Management
UW Graduate Council Chair, AY 2022-2023

New Degree or Certificate Proposal Feasibility Study Template

Feasibility Study for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics

Executive Summary

Degree or Certificate Title: Quick-Start (4+1) BS/MS in Nutrition and Dietetics

Level of Degree or Certificate: Graduate Degree

Delivery Mode(s): The Quick-Start (4+1) BS/MS in Nutrition and Dietetics degree will be delivered primarily on campus with a distance education component (with online coursework while students are in their clinical practice phase of study) and clinical and community-based supervised experiential learning throughout the state of Wyoming.

Estimated Startup Cost of Degree: See ProForma Budget

Anticipated Launch Date: Fall 2024

Description: The proposed program will be a quick-start (4+1) program delivered by the Human Nutrition and Food faculty in the Department of Family and Consumer Sciences, in collaboration with the College of Health Sciences. The accredited program will prepare entry-level Registered Dietitian Nutritionists (RDNs) to practice in areas of clinical, community/public health, and foodservice nutrition. This degree would allow students to complete their Bachelor of Science, Master of Science, and Dietetic Internship in a time-efficient manner all through the University of Wyoming (UW). This program would move UW towards the forefront of dietetic education standards and prepare graduates for immediate job placement as RDNs in the state of Wyoming, nationally, and globally.

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Overview and Description of Degree, Purpose, Strategic Play Overlay

Overview and Description of Degree:

The Didactic Program in Nutrition and Dietetics (DPND) is an accredited program through the Accreditation Council for Education in Nutrition & Dietetics (ACEND; recognized by the U.S. Department of Education as a Title IV gatekeeper). Like many other allied health professionals in the U.S., as of 2024 the credentialing agency for Registered Dietitian Nutritionists (RDNs) will require a master's degree before students can take the national RDN credentialing exam. In order to remain competitive with peer institutions and attract quality students, as well as be ready to produce students who can sit for the RDN exam, the UW DPND program must move away from an undergraduate DPND and toward a 4+1 master's degree. Our proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics will be delivered through the Department of Family and Consumer Sciences (FCS), in the College of Agriculture, Life Sciences and Natural Resources. **The first three years of the degree will be delivered on campus. During the last two years of the program, students will enroll in mostly online courses** while completing supervised experiential learning requirements across Wyoming at sites such as hospitals, medical clinics, schools, University of Wyoming Extension offices, and public health agencies. We would work with similar existing programs in the College of Health Sciences (i.e., Nursing, Communication Disorders, etc.) to develop and maintain clinical- and community-based experiences.

The overall objective of this program is to graduate students that will be eligible to take the Commission on Dietetic Registration examination to qualify them to become nationally credentialed RDNs. This RDN credential enables graduates to work in an array of areas including, but not limited to, healthcare/hospitals, community/public health settings, entrepreneurial/private practice, and food service/hospitality industries.

Degree's Fit with Current Unit Offerings:

In many senses, the proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics would not be a new Academic Program but instead an expansion of the current Didactic Program in Nutrition and Dietetics (DPND) offering through FCS. The current DPND program is a nationally accredited undergraduate program that prepares students for their "next steps" in dietetics education. These next steps include either entry into an accredited dietetic internship or an accredited coordinated graduate degree program (combination of both dietetic internship and master's degree). The proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics degree would take **the current BS dietetics program concentration and add the MS and dietetic internship components, enabling students to complete all their dietetics education in the state of Wyoming through UW.** The current DPND offering would be discontinued and replaced with the new nationally accredited Quick-Start (4+1) BS/MS in Nutrition and Dietetics. The current nutrition and dietetics program offerings are:

- BS in Human Nutrition and Food
 - Provides students a foundation for a Master's in Nutrition or Food Science or related field, pre-health professions (medical, dental, pharmacy, or physician's assistant school). Students are also prepared for careers in nutrition research. Students with this degree also go directly into a career in food product development, food product testing or quality assurance, and management, Cooperative Extension Service, consumer education, sales and marketing, and public relations.

- Minor in Human Nutrition
- BS, Dietetics Concentration/Didactic Program in Nutrition and Dietetics (DPND)*
 - Prepares students for entrance into an accredited dietetics internship and/or coordinated graduate degree program that is a necessary step for a professional dietitian.

**The BS, Dietetics Concentration/Didactic Program in Nutrition and Dietetics (DPND) would be discontinued and replaced with the new Quick-Start (4+1) BS/MS in Nutrition and Dietetics degree. The new program would enable students to complete all components of their dietetics education through UW. The BS in Human Nutrition and Food and Minor in Human Nutrition would remain in place.*

Rationale for the Program:

Changing Dietetics Education Requirements

Starting January 1st, 2024, a **master's degree will be required** by the Commission on Dietetic Registration to take the RDN credentialing exam. This is a shift from the current requirement of a bachelor's degree. To remain competitive with peer institutions and relevant to students in the future, the UW DPND must pursue status as a graduate degree program. Without implementing this new master's level program at UW in response to the shifting national educational requirements in dietetics education, the current BS dietetics program would be in jeopardy of decreased student enrollment and could become an irrelevant program for students.

Emergent Dietetic Education Standards and Increasing Student Employment Readiness

The DPND at UW is accredited by the [Accreditation Council for Education in Nutrition and Dietetics \(ACEND\)](#). ACEND is the accreditation agency for education programs preparing students to begin careers as RDNs. Recently, ACEND released the Future Education Model Accreditation (FEM) Standards for Graduate Programs (GP) in Nutrition and Dietetics, which are competency-based education (CBE) programs that integrate classroom learning with hands-on supervised experiential learning activities. Nutrition and Dietetics is joining other health professions that have transitioned to a CBE model, such as physical therapy, speech language pathology, occupational therapy, audiology, nursing, and pharmacy. Essentially, CBE fosters work readiness and employers see potential value in job applicants who will study using CBE since it aligns academics with the skills they seek in their employees.

ACEND is not requiring that all dietetic programs adopt these standards; however, we see the importance of implementing these new standards in the curriculum as it will better prepare students and increase their job readiness. Thus, the proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics at UW is being developed based upon these emerging education standards.

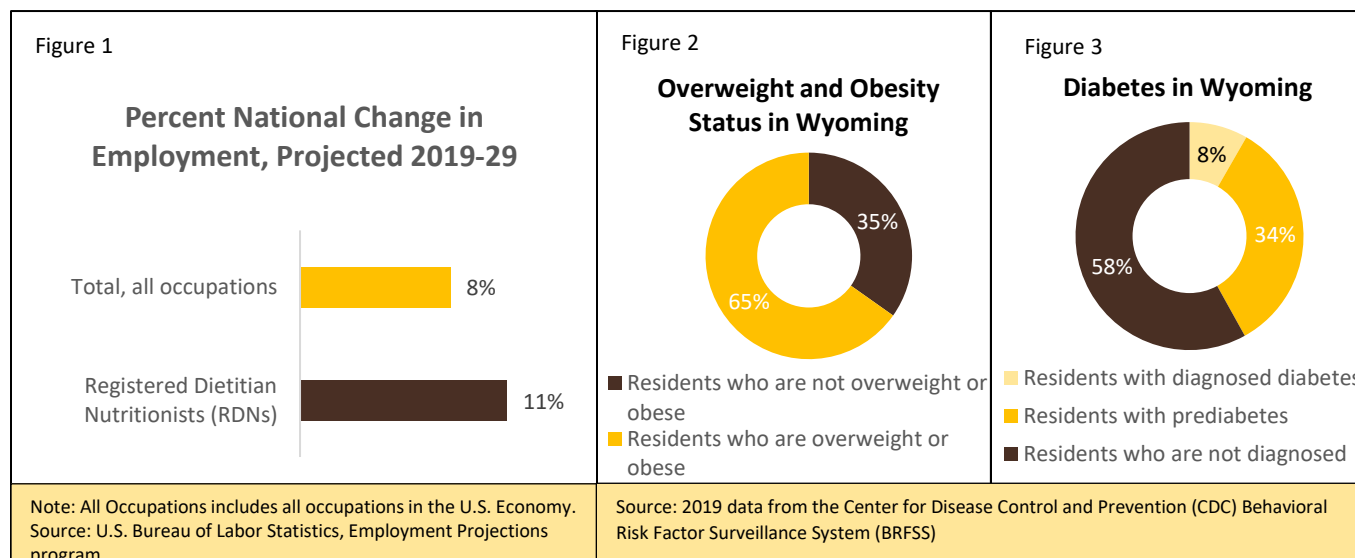
Keeping Tuition Dollars at UW

Right now, there are no options for students to stay in the state of Wyoming to complete all the requirements necessary to become RDNs through UW. Although our current DPND provides the required undergraduate education, we do not offer the Dietetic Internship necessary before students can sit for the RDN exam. Therefore, students from the UW DPND either leave the state of Wyoming to obtain graduate degrees and Dietetic Internships, or they stay in the state and pay other institutions (such as the University of Northern Colorado and Kansas State University) to complete their internships here. In the former scenario, students take tuition dollars and highly needed entry-level health

professionals out of the state of Wyoming. In the latter scenario, those students wanting to become RDNs in Wyoming are opting for “distance” Dietetic Internship and master’s degree options. Essentially, this means that students can live in Wyoming and complete their internship experiences at local hospitals, clinics, etc., but are sending their tuition dollars to other institutions. The proposed program would enable students to fulfill the education requirements to become RDNs all within the state of Wyoming and complete their degree at UW at in-state tuition rates.

Keeping High-demand Health Professionals in Wyoming

Currently, there are a limited number of practicing RDNs and health professionals in Wyoming, creating a high need to educate, train, employ, and retain Wyoming RDNs for the future. Focus group feedback from Wyoming RDNs at the 2019 Wyoming Academy of Nutrition and Dietetics (WAND) conference indicated that many hospitals, organizations, and agencies in Wyoming find it challenging to hire and retain RDNs. Additionally, the percent national change in employment for RDNs is almost double the projected need compared to other occupations (Figure 1), thereby also stressing the need for more RDNs in Wyoming and across the U.S. Moreover, obesity, diabetes, heart disease and other chronic diseases related to dietary choices are increasing in prevalence in the U.S. as well as in the state of Wyoming (Figure 2 and Figure 3), emphasizing the demand and importance of training and educating more RDNs.



Alignment with Strategic Plans:

Alignment with UW’s strategic plan: The proposed program aligns with all four of the University of Wyoming’s goals in the Five-Year Strategic Plan (*Breaking Through*) and with the current strategic goals of: institutional excellence, student success, and service to the community. Here, we will highlight the goals that most closely align to our proposed program. Further this program aligns with College goals of growing knowledge, people and communities.

- Goal 1 emphasizes the promotion of “academic programs that address workforce needs of the state and region.” As indicated by the Gray Associate’s data (which can be found later in this study) and feedback from Wyoming Academy of Nutrition and Dietetic members, there is a high need for RDNs in Wyoming and nationally.
- Goal 2 addresses the need to “engage and graduate well-rounded and creative thinkers, capable of meeting unpredictable and complex challenges”. The nature of this program will produce students who understand nutrition and communities, equipping students to understand and support children, families, and those in need in a holistic way. The Quick-Start (4+1) BS/MS in Nutrition and Dietetics will also provide opportunities for students to engage in internships throughout the program at various locations throughout Wyoming.
- Goal 3 encourages programs to “build a statewide community of learners by collaborating with schools, community colleges and tribal nations to connect students and citizens”. Serving the community engagement is an important goal of the College and providing educational programs that serve this goal meet this mission. The proposed program supports these efforts through student placement in student learning experiences across the state. We hope to partner with these communities in an effort to better prepare our students to provide instruction and support to diverse populations.
- Goal 4 focuses on the University as a whole through maintaining and strengthening its “marketing effectiveness, financial resources, and human capital.” This program will supplement these efforts by offering a competitive and novel educational experience.

Alignment with President Seidel’s Four Pillars: The proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics program aligns with President Seidel’s Four Pillars: interdisciplinary, digital, entrepreneurial, and inclusiveness and diversity.

- Interdisciplinary - The current interdisciplinary nature of the DPND program will carry over and expand in the Quick-Start (4+1) BS/MS in Nutrition and Dietetics (e.g., exposing students to the biological, physical and social science, medicine and business). Further collaboration with existing UW entities such as Extension, and other allied health profession majors at UW (e.g., nursing, pharmacy, and social work). Nutrition and dietetics faculty have consistently been involved in the WWAMI program. Ongoing collaboration between the nutrition and dietetics faculty and WWAMI ensures better educational outcomes for students, increased research collaborations, and faculty development opportunities.
- Digital - Students will be placed around the state in clinical, food service, and community sites thus requiring many courses to be moved to distance/online delivery. This will not only increase online course offerings but also help expand UW’s digital platform. Distance learning with digital support will supplement further student engagement with their designated communities, helping to solve nutritional problems across Wyoming. Our students have been involved with the delivery of telehealth services across the state.
- Entrepreneurial - By training more qualified RDNs, not only will hospitals across the state be better equipped with dietitians, but there will also be more potential for RDN-owned private practices and nutrition businesses in Wyoming. An increase in RDN-owned businesses will help grow the pool of qualified professionals in related fields such as nutritional coaching/counseling,

the food service industry, food science and small food business development, and community nutrition education.

- Inclusiveness and Diversity - Curriculum will require immersive experiential learning experiences within community, hospital, and foodservice settings across Wyoming. These will focus on marginalized groups and solving health disparities in our communities including food insecurity. Nutrition and dietetics faculty have research collaborations with other departments, colleges, universities, and a diverse array of community organizations. Students are exposed to different perspectives through the lenses of these organizations.

College of Agriculture, Life Sciences and Natural Resources Strategic Priorities: The proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics program aligns with the five goals outlined in the strategic framework, *Impact 2020: Defining Our Future*, of the College of Agriculture, Life Sciences and Natural Resources.

- Goal 1: Student Success Amplified – This goal includes increasing student access to internships and community engagement, service learning, off campus experiences, real-world career experiences, and interactions with professionals. The proposed program requires that students participate in many experiential learning opportunities and internship hours with UW entities such as dining, Extension, student health services, ACRES, and athletics, as well as community hospitals and agencies across the state.
- Goal 2: Academic Innovation and Distinction – This goal includes commitment to supporting high-quality research and creative scholarship of faculty, staff, and students. The Quick-Start (4+1) BS/MS in Nutrition and Dietetics will increase the number of graduate students working with UW nutrition and health-related faculty on unique and relevant projects and research. This, in turn, will help increase research output and funding.
- Goal 3: Community Engagement and Strategic Partnerships – This goal includes building community-based collaborations, promoting rural community vitality and health across Wyoming, and meeting workforce needs. The partnerships created by this program will build statewide collaborations that benefit both students and partners; further demonstrating UW's commitment to rural community health. In addition, the prevalence of overweight and obesity, as well as chronic diseases related to dietary choices, has increased in the U.S. and the state of Wyoming. Because of this, the demand for RDNs is increasing (supported by BLS projections), and we must continue to prepare students to meet this workforce demand.
- Goal 4: Transformational Driver of Economic Growth – This goal includes increasing educational and experiential learning opportunities that lead to job creation in the state. By engaging students across the state through this graduate program, we will demonstrate the impact the College of Agriculture, Life Sciences and Natural Resources can have on quality of life for Wyoming citizens and how that can translate into meaningful and exciting career opportunities.
- Goal 5: Marketing and Branding – We plan to increase awareness across campus and Wyoming about this new, innovative program that we believe will be competitive on a regional and national scale. This new program will also keep the dietetics program offering at UW relevant to contemporary student demand and need.

Alignment with the Family and Consumer Sciences Department Mission: The proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics aligns with the Family and Sciences Department as it innately has a focus on community, family, and individual health. The new program is innovative and interdisciplinary. It will offer authentic learning experiences for students while striving for excellence in teaching and research.

Learning Outcomes

Learning outcomes are based on the Accreditation Council for Education in Nutrition and Dietetics (ACEND) [competencies](#) for FEM graduate programs, which are knowledge of the following:

Unit 1: Foundational Knowledge

- 1.1: Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease.
- 1.2: Applies an understanding of anatomy, physiology, and biochemistry.
- 1.3: Applies knowledge of microbiology and food safety.
- 1.4: Integrates knowledge of chemistry and food science as it pertains to food and nutrition product development and when making modifications to food.
- 1.5: Applies knowledge of patho-physiology and nutritional biochemistry to physiology, health, and disease.
- 1.6: Applies knowledge of social, psychological, and environmental aspects of eating and food.
- 1.7: Integrates the principles of cultural competence within own practice and when directing services.
- 1.8: Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy.
- 1.9: Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health, and wellness
- 1.10: Applies knowledge of math and statistics.
- 1.11: Applies knowledge of medical terminology when communicating with individuals, groups, and other health professionals.
- 1.12: Demonstrates knowledge of and is able to manage food preparation techniques.
- 1.13: Demonstrates computer skills and uses nutrition informatics in the decision-making process.
- 1.14: Integrates knowledge of nutrition and physical activity in the provision of nutrition care across the life cycle.
- 1.15: Applies knowledge of nutritional health promotion and disease prevention for individuals, groups, and populations.
- 1.16: Gains a foundational knowledge on public and global health issues and nutritional needs.

Unit 2: Client/Patient Services

- 1.1: Applies a framework to assess, develop, implement, and evaluate products, programs, and services.
- 1.2: Selects, develops and/or implements nutritional screening tools for individuals, groups, or populations.

- 1.3: Utilizes the nutrition care process with individuals, groups, or populations in a variety of practice settings.
- 1.4: Implements or coordinates nutritional interventions for individuals, groups, or populations.
- 1.5: Prescribes, recommends, and administers nutrition related pharmacotherapy.

Unit 3: Food Systems Management

- 1.1: Directs the production and distribution of quantity and quality food products.
- 1.2: Oversees the purchasing, receipt and storage of products used in food production and services.
- 1.3: Applies principles of food safety and sanitation to the storage, production, and service of food.
- 1.4: Applies and demonstrates an understanding of agricultural practices and processes.

Unit 4: Community and Population Health Nutrition

- 1.1: Utilizes program planning steps to develop, implement, monitor, and evaluate community and population programs
- 1.2: Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy.

Unit 5: Leadership, Business, Management and Organization

- 1.1: Demonstrates leadership skills to guide practice.
- 1.2: Applies principles of organization management.
- 1.3: Applies project management principles to achieve project goals and objectives.
- 1.4: Leads quality and performance improvement activities to measure, evaluate and improve a program's services, products and initiatives.
- 1.5: Develops and leads implementation of risk management strategies and programs.

Unit 6: Critical Thinking, Research and Evidence-Informed Practice

- 1.1: Incorporates critical thinking skills in practice.
- 1.2: Applies scientific methods utilizing ethical research practices when reviewing, evaluating, and conducting research.
- 1.3: Applies current research and evidence-informed practice to services.

Unit 7: Core Professional Behaviors

- 1.1: Assumes professional responsibilities to provide safe, ethical, and effective nutrition services.
- 1.2: Uses effective communication, collaboration, and advocacy skills.

Curriculum Map and Program Structure

Below is the proposed curriculum map for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics, which includes USP courses, college requirements, and degree requirements. The program follows 4+1 requirements and includes at least 120 undergraduate credits, 30 graduate credits, and no more than 6 dual listed credits for a total of at least 150 university credits. New courses and delivery options are also noted.

Nutrition & Dietetics, Quick-Start (4+1) BS/MS

Course Prefix	Course Number	Course Title	Credit Hours	USP	New?	Delivery
Year 1 Fall (Semester 1)						
	1XXX	USP First-Year Seminar	3	FY		
ENGL	1010	USP Communication 1	3	C1		
FCSC	1141	Principles of Nutrition	3			Laramie, online
MATH	1400	College Algebra	3	Q		
LIFE	1010	General Biology	4	PN		
Credit hours subtotal:			16			
Year 1 Spring (Semester 2)						
CHEM	1020	General Chemistry I	4	PN		
FCSC	1410	Scientific Study of Food	3	PN		Laramie
FCSC	1411	Scientific Study of Food Lab	1			Laramie
POLS	1000	American and Wyoming Government	3	V		
PSYC	1000	General Psychology	3	H		
SOC	1000	Sociological Principles	3	H		
Credit hours subtotal:			17			
Year 2 Fall (Semester 3)						
CHEM	1030	General Chemistry II	4	PN		
FCSC	2141	Nutrition Controversies	2			Laramie, online
MOLB	2021	General Microbiology	4			
STAT	2050	Fundamentals of Statistics (may sub STAT 2070)	4			
HLED	1006	Personal Health	3	H		
Credit hours subtotal:			17			
Year 2 Spring (Semester 4)						
CHEM	2300	Intro to Organic Chemistry (may sub CHEM 2420)	4			
FCSC	2200	Professionalism and Communication	3	C2		Laramie, online
LIFE	3050	Genetics	4			
HLED	3020	Community and Public Health	3			
FCSC	2XXX	Life Cycle Nutrition I – Childhood/Adolescence	2		New	Laramie, online
Credit hours subtotal:			16			
Year 3 Fall (Semester 5)						

MOLB	3610	Principles of Biochemistry	4		
KIN	2040	Human Anatomy	3		
KIN	2041	Human Anatomy Lab	1		
ENGL	4010	Technical Writing in the Professions (or sub Scientific Communication ZOO/BOT 4100/4101)	3	C3	
MGT	3210	Management and Organization	3		
Credit hours subtotal:			14		

Year 3 Spring (Semester 6)

FCSC	3142	Life Cycle Nutrition II – Adults/Older Adults	2	New	Laramie, online
ZOO	3115	Human Systems Physiology	3		
MOLB	4100	Clinical Biochemistry	4		
FCSC	3145	Sports Nutrition & Metabolism	3		Laramie, online
FCSC	3150	Therapeutic Foods	3	New	Laramie
Credit hours subtotal:			15		

Year 4 Fall (Semester 7)

FCSC	4145	Advanced Nutrition and Metabolism	4		Laramie, online
FCSC	4XXX	Professionalism in Dietetics	3	New	Laramie, online
FCSC	3152	Food Management and Production	3	New	Laramie
		Elective	3		
Credit hours subtotal:			13		

Year 4 Spring (Semester 8)

FCSC	4XXX	Community and Public Health Nutrition	3	New	Laramie, online
FCSC	4044	Life Cycle Nutrition III – Maternal/Infant	3	New	Laramie, online
FCSC	4147	Nutrition and Weight Control	3		Laramie, online
FCSC	4XXX	Foodservice Management and Leadership Experience	3	New	Laramie, online
Credit hours subtotal:			12		

Year 4 Summer

FCSC	5XXX	Community and Public Health Nutrition Experience	6	New	Laramie, online
Credit hours subtotal:			6		

Year 5 Fall (Semester 9)

FCSC	5210	TN1: Advanced Nutrition Assessment	4		Laramie, online
STAT	5050	Statistical Methods in Biological Sciences	3		Laramie, online
KIN	5085	Research Methods	3		Online
HLSC	5990	Justice, Equity, Diversity, and Inclusion in STEM and Health Sciences	1		Online
FCSC	5XXX	Clinical Nutrition Experience I	3	New	Laramie, online
Credit hours subtotal:			14		

Year 5 Spring (Semester 10)

FCSC	5220	TN2: Clinical Conditions and Medical Nutrition Therapy	4		Laramie, online
FCSC	5XXX	Therapeutic Nutrition Counseling	2		Laramie, online
FCSC	5XXX	Clinical Nutrition Experience II	5	New	Laramie, online
FCSC	5XXX	Dietetics Capstone	2	New	Online
Credit hours subtotal:			<u>13</u>		
Total Credit Hours:			<u>153</u>		
Undergraduate: 120		Graduate: 33			

Course Descriptions

For all new (denoted with XXX) or revised (carry an existing CRN) classes, a CARF will be submitted to either create or update the following courses. Course descriptions for all existing FCSC required courses can be found below in Table 1.

Proposed new courses in program:

FCSC 2XXX Lifecycle Nutrition I: Childhood/Adolescence Nutrition (2). Encompasses childhood and adolescent nutrition requirements, physiological changes, and social issues.

FCSC 3142 Lifecycle Nutrition II: Adults/Older Adults Nutrition (2). Studies nutrition requirements in adults and older adults as influenced by physiological changes with aging and the impact of nutrition and healthy lifestyle on prevention and treatment of age-related conditions, diseases, and social issues.

FCSC 4044 Lifecycle Nutrition III: Maternal/Infant Nutrition (3). Addresses nutrition requirements prior to and during pregnancy and lactation and continuing through infancy and the physiological and endocrine changes influencing such requirements. Discusses dietary patterns and practices and the importance of healthy lifestyles during these periods for disease prevention and treatment.

FCSC 3150 Therapeutic Foods (3). Addresses wide ranging introductory topics in areas of food service and clinical nutrition as well as cultural awareness relating to food and eating practices.

FCSC 3152 Food Management and Production (3). Examines food management concepts such as the service of safe food, modified menu development, and understanding of federal food regulations for food and nutrition labeling.

FCSC 4XXX/5XXX Community and Public Health Nutrition (3). Project based class providing students with competencies to assess factors that influence the nutritional status of the population; conduct community assessments; and design, implement, and evaluate public health nutrition programs.

FCSC 4XXX Professionalism in Dietetics (3). This course will prepare students for their internship experiences, focusing on how to engage ethically, meaningfully, and professionally with communities and preceptors.

FCSC 5XXX Dietetics Capstone (3). The capstone course of the program focuses on resume building, career exploration, job placement preparation, and RDN exam preparation.

FCSC 5XXX Food Service Management Internship (3). A food service management internship/practicum that applies the concepts of institutional food service systems.

FCSC 5XXX Community Nutrition Internship (6). A guided internship/practicum where students will obtain first-hand experience working with local community nutrition organizations and leaders. Experiences will include nutrition education and curriculum development, program planning and management, and community needs assessments.

FCSC 5XXX Clinical Nutrition Internship I & II (3, 5). A hospital-based internship/practicum divided into three corresponding periods where students work under the direct supervision of RDNs in clinical settings administering Medical Nutrition Therapy to patients with a variety of clinical conditions.

Table 1 – Course title and descriptions for existing FCSC courses that will be required in the Quick-Start (4+1) BS/MS in Nutrition and Dietetics

Course Title	Course Description
FCSC 1141 Principles of Nutrition	This course will provide an introduction to the fundamental concepts of nutrition science and the role of nutrition in overall health. Students develop an understanding of nutritional requirements as related to metabolism of nutrients in various physiological states. Designed for nutrition majors and interested non-majors.
FCSC 1410 Scientific Study of Food	Comprehensive introduction to the study of food. Food science theories relative to composition are applied through the laboratory experiences.
FCSC 1411 Scientific Study of Food Lab	
FCSC 2141 Nutrition Controversies	This course expands upon nutrition concepts covered in <i>FCSC 1141</i> by exploring current nutrition-related controversies. Skills related to the interpretation of research literature will be emphasized.
FCSC 2200 Professionalism and Communication	An introduction to the field of Family and Consumer Sciences. Students will learn the history and approaches to problem solving using the body of knowledge in the field. The course will focus on professionalism and communication strategies using our departmental competencies.
FCSC 3145 Sports Nutrition & Metabolism	Discusses roles played by carbohydrate, fat, protein, water, and key vitamins and minerals as they relate to physical exercise. Applies principles of nutrition.
FCSC 4145 Advanced Nutrition & Metabolism	Discusses functions of components of diet in human metabolism. Applies principles of nutrition.

FCSC 4147 Nutrition & Weight Control	Advanced course in physiological and metabolic determinants of weight control emphasizing pathology, psychodynamics, assessment and treatment of obesity.
FCSC 5210 Therapeutic Nutrition 1: Advanced Nutrition Assessment	Nutrition assessment and diagnosis as part of the nutrition care process; experience in dietary and nutrient assessment of the apparently healthy and sick individual with discussion of case studies.
FCSC 5220 Therapeutic Nutrition 2: Clinical Conditions & Medical Nutrition Therapy	Rationale for dietary modifications in pathological conditions; experience with learning and applying the nutrition care process to develop nutrition care plans for individuals with various medical conditions with discussion of case studies.
FCSC 5230 Therapeutic Nutrition Counseling	Course is designed to help students develop basic nutrition counseling and communication skills. Students will learn how to apply the concepts learned during lecture through interactive classroom experiences with peers and outside of the classroom experiences with an assigned client.

Assessment Plan

In alignment with our accrediting body, student performance will be assessed based on [ACEND standards for graduate programs](#). Our program will continually assess student achievement through ACEND's 37 required competencies for graduate students. Competency assessments will be integrated throughout the program during coursework and internship activities (i.e., when students are at clinical, community, and foodservice rotation/sites). For each competency, there are a variety of more targeted performance indicators (PIs). All competencies and selected PIs are [mapped](#) throughout our proposed curriculum.

Students will be evaluated on selected PIs in each competency at different levels – the “knows” level, “shows” level, and “does” level (this framework is based on Miller’s Pyramid of Assessment). For example:

- The “knows” level assesses student knowledge and could include administering an exam or quiz on a given topic (e.g., an exam is given assessing knowledge about how to properly place a feeding tube into a patient’s gastrointestinal tract).
- The “shows” level assesses the student’s ability to display their knowledge through demonstration. An assessment for the “shows” level could include assigning a student to successfully describe a process through a presentation (e.g., student would give a presentation on how to properly place a feeding tube into a patient’s gastrointestinal tract).

- The “does” level is the highest level of assessment and evaluates the student’s ability to demonstrate their integration of knowledge and skills into successful performance (e.g., student would place a feeding tube into either a simulated or actual patient at bedside).

Degree Program Evaluation

Program evaluation for the Quick-Start (4+1) BS/MS in Nutrition and Dietetics will occur in several ways:

1. In alignment with ACEND accreditation requirements, the program director will recruit an advisory committee comprised of key stakeholders, including past program graduates, administrators, faculty, preceptors, and practicing RDNs, to review the curriculum and program outcomes annually.
2. Assessment data related to student performance will be collected as described above and used to assess learning outcomes on an ongoing basis. In alignment with ACEND accreditation, our program will continuously assess student achievement of required competencies and will collect and analyze aggregate data on student competency attainment. The results of this assessment will be used to evaluate and improve the curriculum in order to enhance the quality of the education provided to students.
3. The proposed program will have a well-defined mission statement with supporting goals and objectives by which it will aim to prepare students for practice as RDNs (see below for detail). In alignment with ACEND accreditation, the program will have an evaluation plan to continuously evaluate the achievement of these mission, goals, and objectives. The program director and support staff will collect data continuously and will aim to improve the program based on findings. Data will be collected in a variety of ways, including through review of graduation records, exit surveys of program graduates, surveys of employers of program graduates, and review of RDN examination pass/fail rates.

Our Program’s Mission: The mission of UW’s Quick-Start (4+1) BS/MS in Nutrition and Dietetics will be to prepare registered dietitian nutritionists (RDNs) to be leaders in nutrition and dietetics through effective classroom teaching and practical community, clinical, and food service experiences in the state of Wyoming and surrounding areas.

Goal #1: To provide an educational environment that enhances students’ problem solving, critical thinking, and decision-making skills ultimately producing graduates that will be leaders in the field of nutrition and dietetics.

Objectives:

- At least 90% of students will rate the program as “meets expectations” or higher on program exit survey. (program satisfaction)
- At least 80% of program students will complete program requirements within 150% of program length. (program completion)
- The program’s one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for RDNs at least 80%. (registration exam)

- At least 80% percent of program graduates will take the CDR credentialing exam for RDNs within 12 months of program completion. (registration exam)
- Of graduates who seek employment, at least 70% percent are employed in nutrition and dietetics or related fields within 12 months of graduation. (graduate employment)
- At least 80% of employers will rate our graduates as “meets expectation” or higher when asked on employer survey.

Goal #2: To prepare competent entry-level nutrition and dietetic practitioners that are prepare for entry level positions.

Objectives:

- 90% of students will receive a satisfactory or passing mark in the clinical nutrition experience III.
- 90% of students will receive a satisfactory or passing mark in the community nutrition experience.
- 90% of students will receive a satisfactory or passing mark in the food service experience.
- At least 90% of graduates will “agree” or “strongly agree” that the program prepared them for their first nutrition and dietetics related position.

New Resources Required

To transition the current DPND into the more relevant and competitive proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics, new resources will be required, including: faculty and instructional staffing; program administration and staff support; technology; and marketing. Below is a clarification of each additional resource needed.

- *Faculty and instructional staffing:*

Since 2016, the Human Nutrition and Food unit has lost numerous faculty positions through retirements and resignations that have not been replaced. The proposed program would require the **addition of at least 1 faculty/lecturer position beyond its current faculty capacity, which is 2 tenure-track faculty and 1 assistant lecturer.** In addition, to provide students with instruction and support during internship components of the program, we will need **three adjunct clinical internship coordinator positions, one adjunct community nutrition internship coordinator position, and 1 adjunct food service coordinator position.**

- *Program administration and staff support:*

There will be a heavy administrative burden with this new program due to student internship placement, contract development and maintenance with external placement sites, and student competency assessment. **One administrative staff member will be needed** to support this aspect of the proposed program.

- *Technology:*

The amount of student assessment and data tracking in this new program is substantial. Program software will be needed to track competencies (37 total) and performance indicators (over 200) for

a total of 15-20 students during the academic year. **Assessment software** specific to dietetics graduate programs is available for purchase and price estimates range from \$3,000-\$6,000/year for subscriptions.

- *Accreditation Site Visit Fees:*

For our program to gain full accreditation with ACEND, we will need to go through **two site visits which will total \$14,200**. The first site visit (\$7,100) is to gain Candidacy for Accreditation with ACEND and will happen in prior to the first cohort of students matriculating in the program. This will happen in the summer of 2024. The next site visit (\$7,100) is to gain Full Accreditation with ACEND and will happen three years after the first cohort matriculates which will be in 2027. After gaining full accreditation, no additional resources will be required beyond what is currently needed for accreditation of the DPND.

Substantive Change Determination

The proposed Quick-Start (4+1) BS/MS in Nutrition and Dietetics is not a substantive change, but rather the replacement of the existing undergraduate DPND.

Executive Summary of Demand Statistics

Overall, the projected demand for RDNs is high, giving UW the opportunity to capitalize on this market. This is demonstrated through national, regional, and state survey data; reports from Gray Associates; the U.S. Bureau of Labor Statistics; the Commission on Dietetic Registration (CDR); and the Wyoming Academy of Nutrition and Dietetics (WAND).

According to Gray Associates' data, Human Nutrition and Food has an overall score in the 98th percentile with moderate student demand while Dietetics has an overall score in the 70th+ percentile with low to moderate demand. Although Dietetics has a low to moderate student demand, the employment outlook for RDNs is expected to increase much faster than average occupation (U.S. Bureau of Labor Statistics, 2021).

Nationally, the U.S. Bureau of Labor Statistics predicts that the number of jobs for registered dietitians and nutritionists will increase by 11% between 2020 and 2030 (Figure 1, page 4); however, we believe that even more RDNs will be needed, due to nutrition related negative health trends in the U.S. and the state (Figures 2 and 3, page 4). Avoidable diseases and conditions such as hypertension, cardiovascular disease and diabetes are on the rise, but can be avoided if there are enough RDNs who are able to deliver services in the communities where it is most needed (Brunton et al., 2021; Ellis, 2022; Lee et al., 2022; Pastors et al., 2002).

Data from CDR's workforce 2011 demand study workgroup indicate that there is only one RDN for every 3,610 individuals in the U.S. population. This is augmented by state data from the Occupational Employment and Wage Statistics program—as of May 2021, Wyoming has a below average location quotient (0.95) and a minimal employment quotient (0.45) (U.S. Bureau of Labor Statistics, 2022). The

location quotient is generated from the area's concentration of RDNs compared to the national average, and the employment quotient refers to the number of practicing RDNs in that area per 1,000 jobs. Wyoming also has the second lowest number of practicing RDNs across the whole state, with Alaska harboring the least (U.S. Bureau of Labor Statistics, 2022).

In addition to the Gray Associates' and U.S. Bureau of Labor Statistics data, a focus group with nearly 20 Wyoming RDNs at the 2019 WAND conference found that many hospitals, organizations, and agencies in Wyoming that employ RDNs find it challenging to hire and retain qualified nutrition professionals. The consensus of this focus group was that a program dedicated to training RDNs in Wyoming is needed.

References

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Anticipated Revenues & Expense

Name of Proposed Program: **Quick-Start (4+1) BS/MS in Nutrition and Dietetics**

	FY2025	FY2026	FY2027	FY2028	Comments
Revenue					
Tuition & Educational Fees Net					
Tuition					
Tuition - Main Campus	99,660	149,704	239,499	249,079	
Tuition - Distance	-	-	-	-	
Financial Aid					
Financial Aid - Graduate	(15,000)	(30,000)	(45,000)	(45,000)	Foundation account scholarships - \$5000/student, max \$45,000
Educational Fees					
Mandatory Fees	9,789	13,705	19,578	19,578	Based on FY23 mandatory fees for full-time main campus students: \$791.76 for graduate students per semester (Fall & Spring) + \$374.32 (6 credits in summer session) = \$1,957.84 per year.
Online Delivery Fee	-	-	-	-	Based on \$14/credit hour (Distance students assumed to be enrolled in online coursework)
Miscellaneous Fees	25,000	35,000	50,000	50,000	One-time practicum/internship fee of \$5000/student
Subtotal: Tuition & Educational Fees Net	\$ 119,449	\$ 168,409	\$ 264,077	\$ 273,657	
Sales of Goods & Services					
Other Operating Revenue					
Total Revenue	\$ 119,449	\$ 168,409	\$ 264,077	\$ 273,657	
Operating Expense & Internal Allocations					
Salary, Wages & Benefits					
Faculty Salary	64,000	64,000	64,000	64,000	
Staff Salary	45,000	45,000	45,000	45,000	
Part-time Salary	72,000	72,000	72,000	72,000	
Graduate Assistant Stipends	-	-	-	-	
Supplemental Pay (Faculty - AY)	10,000	10,000	10,000	10,000	
Fringe Benefits Expense	57,253	57,253	57,253	57,253	Fringe calculations are based on FY23 (non-sponsored program) rates.
Subtotal: Salaries, Wages & Benefits	\$ 248,253	\$ 248,253	\$ 248,253	\$ 248,253	
Services, Travel and Supplies					
Professional Services					
Travel	2,000	2,500	3,000	3,000	Annual travel costs for program administration to visit internship sites within state. Annual dollar amount will increase as program grows (increase in sites).
Supplies					
Other Expense					
Utilities					
Repairs & Maintenance					
Rentals & Leases					
Capital Equipment					
Other	15,300	5,350	5,425	12,600	Annual subscription for student assessment software (\$3000); annual ACEND Accreditation fee (\$2275 in FY2025 and increasing by \$75 each year); Self-Study/Site-Visit Fee for Candidacy in FY2025 (\$7100); Self-Study/Site-Visit Fee for Full Accreditation in FY2028 (\$7100)
Internal Allocations & Sales					
Internal Service Allocation: Plant Operations					
Internal Service Allocation: Info Tech					
Internal Service Allocation: Other					
Internal Sales: Auxiliaries					
Total Operating Expense & Internal Allocations	\$ 265,553	\$ 256,103	\$ 256,678	\$ 263,853	
Statement of Activities Net Result	\$ (146,104)	\$ (87,694)	\$ 7,399	\$ 9,804	

	Academic Year 2024-2025		Academic Year 2025-2026		Academic Year 2026-2027		Academic Year 2027-2028		Comments
	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	
Main Campus*									
Resident	3	99.0	4	132.0	5	165.0	5	165.0	
Non-resident	2	66.0	3	99.0	5	165.0	5	165.0	
Distance*									
Resident		0.0		0.0		0.0		0.0	
Non-resident		0.0		0.0		0.0		0.0	
	5	165.0	7	231.0	10	330.0	10	330.0	

*Main Campus and Distance refer to the *program* type (i.e., how the student is classified), not the the location of any particular course offerings.

	Academic Year 2024-2025		Academic Year 2025-2026		Academic Year 2026-2027		Academic Year 2027-2028		Comments
	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	Total Enrollment	Total Student Credit Hours	
Main Campus*									
Resident	3	99.0	4	132.0	5	165.0	5	165.0	
Non-resident	2	66.0	3	99.0	5	165.0	5	165.0	
Distance*									
Resident		0.0		0.0		0.0		0.0	
Non-resident		0.0		0.0		0.0		0.0	
	5	165.0	7	231.0	10	330.0	10	330.0	

*Main Campus and Distance refer to the *program* type (i.e., how the student is classified), not the the location of any particular course offerings.

Use this workbook to reflect anticipated revenue and expense associated with the proposed program.

Only include revenues and expenses that are truly new to the university.

Use the "Program of Study" worksheet to enter the expected coursework path for a student in the proposed program. Enter the number of students you anticipate will be admitted to the program each year on the "Enrollment Projection" sheet. The "Salary Projection" sheet is for new personnel associated with the proposed program. Enter additional known revenue and expense as appropriate in any of the yellow cells on the "Budget Summary" sheet. Comment fields are available throughout to include additional detail.

Tuition

The tuition calculations are based on the figures entered on the "Enrollment Projection" sheet. Enter the projected number of students admitted to the program each year by student type.

Note that "Main Campus" and "Distance" refer to the *program* type, rather than the site of any given course offered. For example, the Online MBA is an entirely distance education program, so all students admitted to it would be counted as "Distance," whereas all students in the standard MBA program would be counted as "Main Campus" (even if students in either program may complete some coursework online).

If you are proposing a program with a tuition rate that differs from standard university rates, please contact the Budget Office.

Financial Aid

Include anticipated scholarship payments in this area with a **negative** dollar value. If including financial aid expense, please indicate the intended source of funding (e.g., unrestricted operating, Foundation funds, grants, etc.).

Fees

Mandatory fees are calculated automatically based on the rates published in the FY23 fee book. If you plan to assess additional fees, please indicate these in the "Miscellaneous Fees" area and use the comments filed to give further detail.

Other Revenue

Enter additional revenue from sources outside the university as a **negative** value. Income that is internal (e.g., IDTs) should be indicated in the "Internal Allocations & Sales" area below.

Salary, Wages & Benefits

Use the "Salary Projection" sheet to list new personnel associated with the proposed program. Be sure to select a "Type" (Faculty, Staff, etc.) and only enter gross salary amounts: fringe expense is calculated automatically on the "Budget Summary" sheet.

Internal Allocations & Sales

List expenses and revenues internal to the university, such as the following:

Plant Operations (UW Operations)

Info Tech (data & telephone charges)

Other (e.g., UW Catering)

Auxiliaries (copier, postal, fleet service rentals)

Use a **negative** value to indicate funds being received by the program.

Contact the Budget Office if you have additional questions or for further clarifications:

budgetoffice@uwyo.edu or 766-8064

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: UW Regulation 2-13: Science and Math Teaching Center (SMTC) to the College of Education, Ahern

- PUBLIC SESSION
- EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
- No

FOR FULL BOARD CONSIDERATION:

- Yes

[Note: If yes, materials will also be included in the full UW Board of Trustee report.]

- No

- Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

Under the auspices of University Regulation 2-13, the Provost and Executive Vice President, the Vice Provost of Graduate Education, and the Dean of the College of Education here present a proposal to move the Science and Mathematics Teaching Center (SMTC) from its current administrative home in the School of Graduate Education to the College of Education. This reorganization is intended to take place at the beginning of FY24. Additionally, as part of the present 2-13 proposal, both the M.S. in Natural Science and the M.S.T. in Natural Science be moved to the College of Education. If approved, the M.S. in Natural Science will no longer be listed under Academic Affairs and the M.S.T. will no longer be listed under the College of Arts & Sciences. The 2023 Master List of Degrees, as submitted for review in the May 2023 meeting, reflects these changes.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

University of Wyoming Regulation 2-13 requires that the Board of Trustees approve the reorganization/consolidation of academic programs.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

Consideration for approval of the integration of the Science and Math Teaching Center (SMTC) and associated degrees be moved to the College of Education.

PROPOSED MOTION:

“I move that the Science and Math Teaching Center (SMTC) and associated degrees move to the College of Education. be approved for full board consideration.”



UNIVERSITY
OF WYOMING

Office of Academic Affairs

Office of Academic Affairs
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Laramie, WY 82071
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October 10, 2022

Re: UW Regulation 2-13: Science and Math Teaching Center (SMTC)

Under the auspices of University Regulation 2-13, the Provost and Executive Vice President, the Vice Provost of Graduate Education, and the Dean of the College of Education here present a proposal to move the Science and Mathematics Teaching Center (SMTC) from its current administrative home in the School of Graduate Education to the College of Education. This reorganization is intended to take place at the beginning of FY23.

Teachers and other educational leaders are cornerstones of the foundation for Wyoming's new economy. As units that educate current and future teachers and provide crucial professional development to Wyoming's school districts, the Science and Mathematics Teaching Center and the College of Education share a core mission. This administrative move of SMTC would strengthen it and the College of Education. This reorganization would be consistent with President Seidel's focus on "building a best-in-class 21st-century land grant university true to its Wyoming roots." collaborations and synergies already exist between SMTC and the College of Education. These would only be significantly strengthened and expanded by bringing the former into the latter.

Background

The Science and Mathematics Teaching Center was created more than fifty years ago as a joint enterprise of the College of Arts & Sciences and the College of Education. The Center was founded as an interdisciplinary collaboration that promotes excellence in pre-K-20 science and mathematics teaching and learning. At its core, SMTC:

1. Facilitates collaboration between UW faculty and K-12 educators;
2. Serves as a resource center for teachers;
3. Conducts research;
4. Provides professional development and outreach services for Wyoming school districts and beyond;
5. Offers the Master of Science in Natural Science degree program, which includes foci in Middle-Level Mathematics (MMA), Middle-Level Science (MSC), and Natural Science Education (NED).

SMTC flourished and excelled at its core activities for more than forty years. It was the hub of collaboration for mathematics and science education. In the 2000s, SMTC saw a decline in research productivity, its internal and external relations, reputation, and alignment with STEM education. Due to budget cuts and leadership issues, SMTC was [proposed for elimination](#) in 2016.

Following the review process (governed by the now sunset Regulation 6-43), Provost Kate Miller [recommended](#) that SMTC be dissolved within a year and replaced by another "university-wide center . . . that will effectively support the University's priorities with regard to STEM education." As an interim home for SMTC was needed, it was placed directly under

Academic Affairs, first reporting to the AVP for Undergraduate Education and beginning in 2018 to the AVP/VP for Graduate Education. The provost moved SMTC under Graduate Education since its involvement in degree programs is only at the graduate level.

As priorities changed with leadership changes and other events, the proposed university-wide STEM education center to replace or absorb SMTC has yet to come to fruition, although discussions are ongoing). Although no longer supported nor administered by the College of Arts & Sciences and the College of Education, the value of SMTC remains. Its personnel administer, teach, and advise the M.S. in Natural Science degree and its sub-programs. This degree is among the highest in all UW master's programs in terms of enrollments. Crucially, SMTC is also very active in providing professional development to K12 teachers throughout the state and has multiple contracts with districts and the Wyoming Department of Education. Thus, Academic Affairs recommends against eliminating SMTC. It further recommends moving it under a college where its efforts will be best supported. Given overlaps in personnel and mission, this college should be the College of Education.

Teach-Out Plan

No teach-out plan is needed since no degree programs are proposed for elimination.

Timeline

Upon approval, the College of Education will begin a revision of its By-Laws in anticipation of the move, which is proposed for July 1, 2023.

SMTC faculty and staff will continue to participate in College of Education regular faculty/staff meetings.

The College's business office will work with SMTC staff and the School of Graduate Education to align personnel, business processes, and budgets in anticipation of a transfer to the College of Education on July 1, 2023. These plans will be finalized by January 31, 2023.

All processes and programming will be incorporated into the College of Education on July 1, 2023.

Regards,



Kevin R. Carman, Provost and Executive Vice President

UNIVERSITY OF WYOMING

Office of Academic Affairs

1000 E. University Avenue
Dept. 3302, 312 Old Main
Laramie, WY 82071
307.766.4286 • fax: 307.766.2606

April 26, 2023

Board of Trustees:

This letter serves as addendum to the UW Regulation 2-13 proposal to move the Science & Math Teaching Center from the School of Graduate Education to the College of Education.

The Science and Math Teaching Center has two graduate degree programs: M.S. in Natural Science and M.S.T. in Natural Science. Formerly, the M.S. in Natural Science was conferred under both the College of Arts & Sciences and the College of Education, while the M.S.T. was only conferred under the College of Arts & Sciences. As part of a clean-up of the Master List of Degrees in 2020, the M.S. in Natural Science was moved solely under Academic Affairs, while the M.S.T. remained under Arts & Sciences.

It is my recommendation that, as part of the present 2-13 proposal, both the M.S. in Natural Science and the M.S.T. in Natural Science be moved to the College of Education. If approved, the M.S. in Natural Science will no longer be listed under Academic Affairs and the M.S.T. will no longer be listed under the College of Arts & Sciences. The 2023 Master List of Degrees, as submitted to you for review in the May 2023 meeting, reflects these changes.

The Science & Math Teaching Center fully administrates these two degree programs. With its (proposed) move to the College of Education, both of its degree programs should also be placed solely within that college.

The deans of Arts & Sciences, Education, and Graduate Education and the Interim Director of the Science & Math Teaching Center concur with this proposal.

Best,



Kevin Carman
Provost and Executive Vice President for Academic Affairs

November 8th, 2022

TO: Renée M. Laegreid, Chair of Faculty Senate
FROM: Kam Ng, Graduate Council Chair
SUBJECT: 2-13 proposal to move the Science and Math Teaching Center (SMTC) from School of Graduate Education to the College of Education

The University of Wyoming Graduate Council completed its review of the 2-13 proposal request to move the Science and Math Teaching Center (SMTC) from School of Graduate Education to the College of Education on Friday, November 4th, 2022. An electronic vote was subsequently completed by 5 pm of Tuesday, November 8th, 2022. The members of the Graduate Council collectively support the proposal and agree that the SMTC fits well in the College of Education. Given the above feedbacks, thirteen members of the Graduate Council voted – with no vote received from three members – in favor of the request to move the SMTC from School of Graduate Education to the College of Education. If the Graduate Council can be of further service in this matter, please feel free to correspond with me accordingly.

Sincerely,

A handwritten signature in black ink, appearing to read "Kam Ng" with a stylized flourish at the end.

Kam Ng, Ph.D., P.E.
Associate Professor
Department of Civil and Architectural Engineering and Construction Management
UW Graduate Council Chair, AY 2022-223

**Resolution Regarding Moving the UW Science and Math Teaching Center to
the College of Education**

WHEREAS, it is proposed the Provost and Executive Vice President, the Vice Provost of Graduate Education, and the Dean of the College of Education to move the UW Science and Math Teaching Center to the College of Education; and

WHEREAS, the Faculty Senate's Academic Planning Committee (APC) and the Graduate Council has reviewed the proposal; and

WHEREAS, the APC and Graduate Council is supportive of this proposal, as shown in the attached report from the APC and Graduate Council;

THEREFORE, BE IT RESOLVED by the Faculty Senate of the University of Wyoming that it supports the recommendation of the APC and Graduate Council as specified in the report attached hereto.

AUTHENTICATION: The foregoing Faculty Senate Resolution 434, as amended, duly adopted by the Faculty Senate of the University of Wyoming under date of March 27, 2023, is hereby transmitted to the President of the University of Wyoming for review in accordance with UW Regulations.



Treva E. Sprout Ahrenholtz
Secretary, Faculty Senate
Dated: April 17, 2023

AGENDA ITEM TITLE: Modifications to UW Regulations 2-5 (Assessing Effective Teaching), 2-7 (Procedures for Reappointment, Tenure, Promotion and Fixed-Term), and 2-100 (Academic Class Management), Sullivan/Evans

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
- No [Regular Business]

Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

UW Regulation 2-5 (Assessing Effective Teaching) and UW Regulation 2-100 (Academic Class Management)

At the July 2021 Board of Trustees meeting, the Chair assigned an ad hoc Board Meeting Restructure Committee to review and assess restructure changes that might increase efficiency of Board meetings. Part of that effort included identifying administrative efficiencies through possible modification or revocation of UW regulations. Based on that review, the Board’s Ad Hoc Regulation Committee reviewed 20 regulations and endorsed changes to 12 regulations. Modifications to 10 of the regulations were reviewed and approved at the January 2023 Board of Trustees Meeting. Two remaining regulations are in front of the Board today:

- **UW Regulation 2-5 (Assessing Effective Teaching):** Deleted administrative processes, which will be combined with the current Standard Administrative Policy and Procedure (SAP): Procedures for Assessing Effective Teaching. A working group was formed with the Provost’s Office and the Faculty Senate to review and provide recommended language to condense the regulation language and the existing SAP.
- **UW Regulation 2-100 (Academic Class Management):** Added course syllabus language from UW Regulation 2-117, which was sunset and replaced with a SAP. Additionally, ASUW recommended modifying the requirement that students shall not have to take more than “two final examinations in any one day” to students shall not have to take more than “four hours of final examinations in any one day.”

Per the routing process for UW Regulations, the proposed modifications were provided to the President’s Cabinet, Deans and Directors, Faculty Senate, Staff Senate, ASUW, and the Internal Auditor. Faculty Senate endorsed the proposed modifications to UW Regulation 2-5. On UW Regulation 2-100, they disagreed with ASUW’s suggested modifications and after working with ASUW, ASUW agreed to keep the original language as “two final examinations in any one day”

UW Regulation 2-7 (Procedures for Reappointment, Tenure, Promotion and Fixed-Term)

UW Regulation 2-7 defines university-level standards and procedures for reappointment, tenure, fixed-term and promotion for faculty. The Provost’s Office is recommending that annual performance reviews replace the mandatory multi-level reappointment review for tenure track faculty.

Per the routing process for UW Regulations, the proposed modifications were provided to the President's Cabinet, Deans and Directors, Faculty Senate, Staff Senate, ASUW, and the Internal Auditor. Faculty Senate endorsed the proposed modifications.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

The Board is regularly presented with proposed modifications to UW Regulations.

WHY THIS ITEM IS BEFORE THE BOARD:

UW Regulation 1-101 requires that the Board approve modifications to UW Regulations.

ACTION REQUIRED AT THIS BOARD MEETING:

Board approval or disapproval of the proposed modifications.

PROPOSED MOTION:

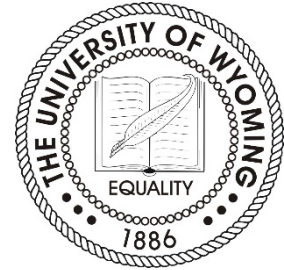
I move to approve modifications to UW Regulations 2-5, 2-7, and 2-100 as presented to the Board.

PRESIDENT'S RECOMMENDATION:

UNIVERSITY OF WYOMING REGULATIONS

Subject: Assessing Effective Teaching

Number: UW Regulation 2-5



I. PURPOSE

Effective university teaching focuses on students and their learning. It requires a broad set of specific skills and evidenced-based pedagogies that meet the requirements of the context in which the teaching and learning occur. A judicious teacher effectiveness assessment system recognizes the broad dimensions of teaching, is sensitive to different kinds and styles of instruction and innovation in teaching, and uses multiple measures involving multiple sources of data to assess effectiveness of teaching.

The purpose of a system for assessment of academic personnel's teaching effectiveness and of student learning is twofold:

- A. To provide evidence-based feedback to academic teaching personnel from multiple sources to aid in the continuous improvement of student learning, instructional methods, and course content; and
- B. To provide data on teaching effectiveness for consideration in the decision-making processes related to reappointment, promotion, tenure, fixed-term, salary, and awards.

~~II. DEFINITIONS~~

~~**Academic Personnel:** For the purposes of this Regulation, Academic Personnel includes faculty as defined in UW Regulation 2-1.~~

~~**Comprehensive Evaluation:** A multi-level process used for reappointment, tenure, promotion, fixed term, and extensive post-tenure review.~~

~~**Evidence-based pedagogies** use teaching practices that are based on available research in teaching and learning, practices that have been scientifically shown to foster learning.~~

~~**Group I Classes:** For the purposes of this Regulation, Group I classes include group instruction classes as defined in UW Regulation 2-100.~~

III. II. POLICY

The President of the University, through the Provost, shall establish and maintain a Standard Administrative Policy and Procedure for assessing effective teaching of academic personnel.

- ~~A. Regular assessment of teaching effectiveness applies to all academic personnel, of whatever rank, category, or status, who perform teaching functions within the University. All Group I classes shall have some form of assessment.~~
- ~~B. Assessment by students, peers/colleagues, administrators, and self-reflections shall be included in any comprehensive evaluation of teaching and learning.~~
- ~~C. Annual review of teaching shall include administrative assessment and faculty self-reflection. Additional sources of data may be used, consistent with the academic unit and/or college guidelines.~~
- ~~D. To capture the many dimensions of teaching, multiple types of evidence of effectiveness shall be used, such as teaching awards, peer evaluation, student evaluation, professional development related to teaching, personal reflection, scholarship of teaching and learning, and assessment of student learning outcomes.~~

~~IV. FREQUENCY OF ASSESSING TEACHING EFFECTIVENESS~~

~~The frequency for assessing teaching shall occur according to the following minimum standard:~~

- ~~A. All non-tenured and tenure track faculty shall be evaluated in each course taught during their first three years. After that, evaluation will be conducted in at least one course per semester or term in which the individual teaches. If feasible, different courses should be evaluated each year.~~
- ~~B. Tenured assistant or associate professors and extended term or fixed term rolling contract academic teaching personnel will be evaluated in at least one course per semester or term in which the individual teaches. If feasible, different courses should be evaluated each year.~~
- ~~C. Tenured full professors will be evaluated in at least one course per year. If feasible, different courses should be evaluated in any two-year sequence.~~

~~V. PROCEDURES FOR ASSESSING TEACHING EFFECTIVENESS~~

- ~~A. Academic personnel with teaching responsibilities in each academic unit shall establish and publish guidelines for assessing the effectiveness of each faculty member's teaching.~~
- ~~B. Assessment procedures and methods chosen by each academic unit shall be consistent with the guidance provided in the Standard Administration Policy and Procedure adopted for the purpose of implementing this regulation.~~

Responsible Division/Unit: Office of the Provost and Vice President for Academic Affairs

Source: None

Links: <http://www.uwyo.edu/regs-policies>

Associated Regulations, Policies, and Forms: None

History:

University Regulation 800, Revision 7; adopted 7/17/2008 Board of Trustees meeting

Revisions adopted 3/23/2017 Board of Trustees meeting

Reformatted 7/1/2018: previously UW Regulation 5-800, now UW Regulation 2-5

Revisions adopted 6/16/2021 Board of Trustees meeting

UNIVERSITY OF WYOMING REGULATIONS

Subject: Procedures for Reappointment, Tenure, Promotion and Fixed-Term

Number: UW Regulation 2-7



I. PURPOSE

To define university-level standards and procedures for reappointment, tenure, fixed-term and promotion for faculty.

II. DEFINITIONS

Academic Unit of Record: The academic department that serves as the tenure and fixed-term home for the faculty member. In the case of a joint appointment, the academic unit of record is the academic unit to which the largest share of the workload is distributed. For School of Energy (SER) faculty, the unit of record is the academic department, school or college.

College Reappointment, Tenure and Promotion Committee: A committee composed of faculty from multiple Academic Units who will review reappointment, tenure, fixed term, and promotion cases following reviews at the level of individual Academic Units.

Performance Expectations: Performance expectations that make explicit the standards of the unit and discipline and incorporate the individual's workload distribution, which may change through time.

University Reappointment, Tenure and Promotion Committee: A committee to review reappointment, tenure, fixed term, and promotion cases and advise the Provost about these decisions. The committee will be composed of faculty representative of the different colleges and schools as well as types of activities conducted on campus.

III. REAPPOINTMENT, TENURE, FIXED-TERM AND PROMOTION POLICY

The University is committed to retaining and promoting faculty whose work achieves a high standard of excellence and who demonstrate through the performance of their duties a commitment to professionalism and to the core university mission.

One of the purposes of academic *tenure* is to retain a faculty best qualified to help execute the core university mission of advancing knowledge and educating students. The purpose of *promotion* is to recognize and reward faculty with records of sustained professional accomplishment that contribute to that mission. *Fixed-term appointments* provide stable,

long-term employment with opportunities for promotion for non-tenure track faculty and other academic personnel who support specific aspects of the teaching, research, extension and service missions of the University.

Candidates for reappointment, tenure, promotion and fixed-term appointments are evaluated on the academic functions they are expected to perform and the evaluations will appropriately recognize the proportion of time allocated and expected for the particular functions by the candidates at each academic rank. Evaluations will account for changes in expected functions over time. In addition, the programmatic needs and directions of the University will also be considered for reappointment, tenure, and fixed-term.

The main criteria for reappointment, tenure, promotion, and fixed-term decisions are creative development, advancement of knowledge, and dissemination of knowledge. These criteria may be demonstrated in the University's functions of teaching, research, creative contributions, extension, outreach/engagement, service to the state of Wyoming, professional service, and other University-related activities and services.

Academic Units and colleges have the authority and responsibility to develop College or Unit Policy and Procedures that specify performance standards for their tenure track Faculty and non-tenure track faculty and other academic personnel. These standards shall be consistent with UW Regulations and Standard Administrative Policies and Procedures.

All judgments and recommendations about reappointment, tenure, promotion, and term contracts rest upon objective and transparent evaluation of the faculty member's performance of his or her teaching, research and creative activity, extension and service responsibilities. The function of the University's systematic, multi-phased review process, is to:

- A. Ensure quality of faculty performance,
- B. Protect faculty against dismissal without cause, due process, or peer evaluation,
- C. Prevent intrusion of inappropriate influence into the review and decision-making processes, and
- D. Provide actionable, formative feedback to faculty as they advance through their careers at the University.

IV. REAPPOINTMENT, TENURE, FIXED-TERM AND PROMOTION REVIEW PROCESS

Decisions about reappointment, tenure, fixed-term and promotion are reached through a comprehensive and rigorous peer and administrative review of achievements and promise. The review process begins in the candidate's Academic Unit of Record. Each case moves

through a sequence of reviews, from the Academic Unit to the college and then to the university level, whereby at each level a duly appointed officer of the University as defined in UW Regulation 1-1 is to make a recommendation after having been advised by an appropriate faculty committee or group. All performance reviews will consider faculty activities in accordance with the Performance Expectations and allocation of effort and accounting for potential changes in the allocation over time.

Specific procedures for reappointment, tenure, fixed-term and promotion processes, including timelines, duties and responsibilities of the candidate, faculty and administrators, and procedures for external expert review, shall be specified in Standard Administrative Policy and Procedures.

A. Annual review

The university recognizes that people are the university's most important resource for achieving and sustaining excellence in teaching, research and creative activity, service, extension, and outreach. With the exception In-Residence, Adjunct, Visiting or Emeritus Faculty, all academic personnel, regardless of rank, tenure status or fixed-term status, shall be reviewed annually by the Academic Unit head and approved by the Dean in accordance with guidelines and procedures established by the Office of Academic Affairs as well as the unit and college. Annual reviews are conducted in parallel with other performance reviews during the probationary period and for promotion. The ~~first-year~~, mid-probationary, tenure, fixed term, and promotion reviews may replace the annual evaluation providing that the evaluation of annual performance can be disaggregated from the comprehensive review.

The annual review procedures shall be fair and impartial and shall incorporate the Performance Expectations and the allocation of effort. To ensure consistency over time, each Academic Unit shall publish its annual review guidelines. The guidelines shall address when and how peer review is incorporated into the annual review process for the purpose of providing advice to the Academic Unit head for annual performance evaluation. Annual review guidelines for the units shall be approved by the respective Dean (or Director of college-like unit) and shall be reviewed by the Vice Provost for consistency with University Regulations and Standard Administrative Policies and Procedures. The creation and modification of the annual review guidelines shall be a product of joint deliberation by faculty members and the Academic Unit head.

B. Probationary Period for Tenure Track Faculty and Progress to Tenure and Promotion

Tenure is normally obtained after a six-year period of successful probationary service. The length of the probationary period is based on written terms and

conditions indicated in the faculty member's letter of appointment to a tenure track rank.

~~1. **First year review.** All tenure track faculty shall have their first year review after they have been employed through a fall semester.~~

~~2.1.~~**Mid-probationary review.** All Academic Units shall have in place procedures for a mid-probationary review, generally in the third year, which is to include a written assessment and recommendation regarding the faculty member's progress toward tenure. This review is an opportunity for academic personnel to receive feedback on their performance and progress toward tenure and promotion.

~~3.2.~~**Mandatory tenure and promotion review.** Mandatory tenure and promotion reviews shall be conducted in accordance with the schedule specified in the initial appointment letter or in a subsequent letter from the Office of Academic Affairs modifying the time to tenure or promotion (see section V below). Generally, review for promotion occurs simultaneously with the mandatory tenure review.

~~4.3.~~**Promotion to professor review.** Review for promotion to professor shall be consistent with the mandatory tenure and promotion review.

C. Probationary Period for Non-Tenure Track Faculty and Progress to Fixed-Term, Rolling Contract, and Promotion

Fixed-term is normally obtained after serving a probationary period of three consecutive years. The length of the probationary period is based on written terms and conditions indicated in the faculty member's letter of appointment to a fixed-term-track rank.

Decisions regarding fixed-term with rolling contract and promotion in rank shall follow a thorough performance review as described in Standard Administrative Policies and Procedures.

~~1. **First year review.** All non-tenure track faculty shall have their first year review after they have been employed through a fall semester.~~

~~2.1.~~**Fixed-term review.** Mandatory fixed-term review shall be conducted in accordance with the schedule specified in the initial appointment letter or in a letter modifying the schedule (see section V). Procedures for fixed-term review shall be conducted in accordance with Standard Administrative Policies and Procedures and the Academic Unit's tenure and promotion procedures.

3.2. Review for rolling a contract forward. Annual performance procedures are integrally related to the decision to grant a Fixed-Term Rolling Contract and to roll forward on an annual basis. A fixed-term will roll forward one year after each satisfactory (meet expectations) annual review. The programmatic needs and directions of the University and available funding will also be considered when determining if the contract will roll forward.

- a. In the event of an annual review that results in an overall rating below “Meets Expectations,” the rolling nature of the contract is suspended and deemed not to roll. The rolling nature of the contract can be restored only after obtaining two successive years of satisfactory (meets expectations) annual reviews.
- b. If the individual receives an overall rating below “Meets Expectations” for two years within a four year period, then the contract is deemed not to roll and the faculty member is ineligible for a rolling contract. All compensation and benefits and requirements of the contract will remain in effect until the expiration of the then current term of the contract.
- c. Units may have additional review procedures such as faculty rolling term evaluation committees to ensure objective and transparent evaluation.

4.3. Promotion review. Review for promotion in rank shall be consistent with the mandatory fixed-term review.

5.4. Replacement of Extended-Term Positions: All current academic personnel on extended-term appointments will retain their current designation and rank for the duration of their extended-term. A request for change in designation may be made concurrent with the next fixed-term decision (i.e., at the end of their current extended term). Faculty in an extended-term probationary period may be considered for a fixed-term with rolling contract according to the review schedule for fixed-term appointments. The probationary period review for fixed-term with rolling contract shall be waived for academic personnel previously appointed to an extended-term.

D. Review of Faculty Holding Joint Appointments

1. Joint appointments within or between colleges (or college-type units such as the American Heritage Center) require special considerations insofar as time allocations derived from monetary or other administrative concerns may not correspond to a description of the faculty member’s total role in the University; such a role may include responsibilities that are not specific to any one of the supporting administrative units. In the evaluation of candidates holding joint appointments, close attention shall be given to the candidate's total job description.

2. In the case of a joint appointment involving two Academic Units within one college (or college-type units) the candidate's materials will be reviewed by both Academic Units, beginning with the Academic Unit of record. The materials will then be reviewed by the College Reappointment, Tenure and Promotion Committee and the Dean, before being submitted to the Provost and Vice President of Academic Affairs.
3. In the case of a joint appointment involving two or more colleges (or college-type units), the candidate's materials will be reviewed by each Academic Unit head, beginning with the Academic Unit of record. If appropriate, the college level review will be conducted by a subcommittee made up of one or more members from each College Reappointment, Tenure and Promotion Committees and the Deans from the respective colleges, before being submitted to the Provost and Vice President of Academic Affairs.

E. Review of Faculty Holding Appointments in the School of Energy Resources (SER)

Review will begin with the SER faculty (excluding any faculty member in the candidate's Academic Unit of Record), who will discuss the candidate's reappointment, tenure and promotion materials and contributions to the SER mission, followed by the Executive Director of SER. Review materials will then be reviewed by the candidate's academic department, Unit Head, College Tenure and Promotion Committee, and Dean, before being submitted to the Provost and Vice President of Academic Affairs.

V. FLEXIBILITY IN TENURE TRACK

A. Extension of the Probationary Period

In exceptional cases, it is possible to increase the length of the probationary period from that specified in the official letter of appointment, via a hiatus in the schedule toward tenure (a "clock stop"). A clock stop postpones, by one year, the next scheduled reappointment review and the date for the tenure or a fixed-term decision. An extension may be granted up to two times. Exceptions to this limit can be made under extraordinary circumstances if approved by the Provost and Vice President of Academic Affairs. Candidates must be held to the same standards of performance when the probationary period has been extended as candidates whose probationary period was not extended.

B. Faculty Hired with Tenure Track Experience

The length of the probationary period may be shortened. Credit for prior experience that reduces the six-year probationary period must be specified in the letter of offer and approved by the Provost and Vice President for Academic Affairs.

C. Faculty Request for Early Tenure Review

A faculty member must be considered for reappointment, tenure and/or promotion after having served the time period required by existing regulations. A faculty member with an exceptional record in all the major dimensions of the candidate's professional responsibilities may apply for early tenure. The determination of an exceptional record is grounded in the performance standards and expectations of the discipline as evaluated by departmental colleagues, external expert reviews, the Unit Head, the college committee, the Dean, and the university committee. A tenure decision is considered to be early if it takes place before the probationary period has come to conclusion. If early tenure is not granted and reappointment is approved, the candidate shall continue on the original timetable.

VI. TENURE, ROLLING TERM AND PROMOTION DECISIONS

A. Tenure Decisions

The reappointment procedures are integrally related to the tenure and promotion decisions of those tenure track faculty serving probationary appointments. A tenure decision is normally based on rank at the time of initial appointment to the University of Wyoming (with the exceptions of Section V) as set forth below:

1. For untenured assistant professors, including those who were initially designated as instructor, the tenure decision will be made no later than the sixth year.
2. For untenured associate professors, the tenure decision will be made no later than the fourth year.
3. For untenured professors, the tenure decision will be made no later than the third year.
4. Tenure decisions will be considered "early" if the candidate has served fewer years than specified above as described in Section V.C.

Only those tenure track faculty who successfully complete the probationary period and are approved by the Trustees, will receive tenure. An individual who is not offered tenure at the end of the probationary period shall not be retained as a tenure track faculty member.

B. Rolling Term Decisions

The reappointment procedures are integrally related to the decision to grant a fixed-term contract and to roll it forward on an annual basis. A fixed-term decision is made regardless of rank at the time of initial appointment to the University of Wyoming as set forth below:

1. Three-year rolling contracts are issued to non-tenure track faculty who have successfully served three one-year term contract appointments. Full-time faculty members appointed to a three-year rolling contract have a three-year term of employment, which is eligible to be renewed annually.
2. Upon promotion to the highest rank, a non-tenure track faculty member is eligible for a rolling five-year contract. Only those non-tenure track faculty recommended by the President of the University and approved by the Board of Trustees will be promoted and receive a rolling five-year contract.

Only those non-tenure track faculty who successfully complete the probationary period and are approved by the President, will receive a fixed-term. An individual who is not offered a fixed-term at the end of the probationary period for reasons other than job performance may be reappointed to an annual appointment.

C. Promotion Decisions

The promotion of faculty shall also be initiated in accordance with the procedures specified in UW Regulations and criteria outlined in Standard Administrative Policies and Procedures. Only those faculty recommended by the President of the University and approved by the Board of Trustees will receive promotion. The promotion in rank salary increase shall be 10 percent of the base salary. The promotion increases are not contingent upon or related to any other regular salary increases.

1. Tenure Track and Tenured Faculty

Promotion decisions for assistant professors being considered for associate rank will normally occur during the sixth year of service; decisions prior to the sixth year will be considered "early." Promotion decisions for associate professors being considered for the rank of professor are not tied to years of service. Instead, they hinge on the depth, level, and national or international scope and recognition of the candidate's contributions to the discipline and the University's mission. Associate professors seeking promotion to professor normally undergo a period of additional growth that results in a greater level of accomplishment and intellectual leadership.

2. Non-Tenure Track Faculty

Non-tenure track faculty will normally be considered for promotion after six years. However, nothing shall prevent a faculty member from seeking promotion at an earlier time. Promotion to the highest rank is not tied to years of service. Instead, promotion decisions hinge on scope and recognition of the candidate's contributions to the discipline and the University's mission. Non-tenure track faculty seeking promotion to the highest academic rank normally undergo a period of additional growth that results in a greater level of accomplishment and intellectual leadership.

D. Decisions Regarding Administrators

1. Administrators Holding Tenure

Administrative and academic officers do not have tenure in their administrative positions and shall serve in such capacity at the pleasure of the Board of Trustees upon recommendation of the President. If they hold concurrent faculty appointments, they may be granted tenure in the faculty position at the discretion of the Board of Trustees upon recommendation by the President. Procedures outlined in Section IV shall be followed when an administrator is being considered for tenure. However, the schedule for review may be expedited when the tenure decision is associated with the administrative appointment. No one shall forfeit tenure by reason of appointment to an administrative position.

2. Promotion in Rank of Administrators

Administrative duties included in the faculty job description shall be considered when a decision about promotion is made. Promotion may be granted at the discretion of the Board of Trustees usually upon recommendation by the President of the University.

VII. OUTCOMES

A. Notification of Reappointment and Tenure

- 1.** If the decision is to reappoint during the probationary period or award tenure, the Provost and Vice President of Academic Affairs will send an appointment letter to the candidate, with a copy to Dean or comparable administrator and the Academic Unit Head.
- 2.** If the decision is to not reappoint during the probationary period or award tenure, the Provost and Vice President of Academic Affairs will provide written notice to the candidate.

B. Notification of Promotion

1. If the decision is in favor of promotion, the effective date is at the beginning of the next contract term (i.e., July 1 for fiscal year appointments, September 1 for academic year appointments).
2. If the decision is in favor of promotion, it shall be the policy of the university that all promotions shall include a salary increase of 10 percent of the base salary, irrespective of other salary increases.
3. If the decision is not in favor of promotion, the Provost and Vice President of Academic Affairs will inform the candidate in writing.

C. Notification of Non-Renewal

1. Tenure track faculty and non-tenure track faculty in their first year whose probationary contract is not renewed shall be notified not later than March 15 of that academic year.
2. Tenure track faculty and non-tenure track faculty on *extended* term in their second year through final year of the probationary period whose contract is not renewed or when tenure is not awarded shall be notified at least 12 months before the expiration of an appointment, which for academic year appointments is typically the end of May.
3. Non-tenure track faculty on *fixed* term with rolling contracts will be notified that his/her appointment will not be renewed and the faculty member will be allowed to finish the remainder of the rolling contract or given a 12-month notice of non-reappointment, whichever is longer.

VIII. WITHDRAWAL OF PACKET BY CANDIDATE FROM FURTHER CONSIDERATION

Candidates not recommended for reappointment, tenure, or promotion at the department and college level shall be notified of the decision. Their materials will be forwarded to the University Reappointment, Tenure and Promotion Committee or the Provost and Vice President for Academic Affairs for review, unless the candidate concerned requests the packet be withdrawn from consideration. If the candidate makes such a request, the decision will be final. A faculty member turned down for reappointment or tenure will have the right at this time to resign and the personnel file will state only that he/she resigned.

IX. RIGHT TO REVIEW AND HEARING FOR VIOLATION OF EVALUATION, PROMOTION OR TENURE PROCEDURES

A faculty member who believes that the university, college or department's tenure and promotion policy or procedures have been violated, adversely affecting the faculty member's tenure or promotion may file a grievance pursuant to University Regulation 2-2.

X. CORE MATERIALS

In accordance with Academic Unit, college and university guidelines, the candidate and unit head are responsible for submitting a core set of reappointment, tenure and promotion materials by the required deadline, including:

- A. Curriculum vitae;
- B. Job description(s);
- C. Self-reflection essay; and
- D. Supporting documents for teaching, research and/or creative contributions, extension, professional services, and University-related activities.

External letters of recommendation are required for all tenure and promotion cases for tenure track faculty and tenured faculty.

XI. ADMINISTRATIVE PROCEDURES

In addition to the roles and responsibilities described herein, the Provost and Vice President for Academic Affairs shall have the authority and responsibility to:

- A. Initiate directives to deans and department/division heads providing for the development of all procedures necessary for the complete and uniform implementation of the annual review, reappointment, tenure and promotion procedures specified in UW Regulations.
- B. Establish the calendar for the submission of reappointment, tenure and promotion materials; the meetings of the University Reappointment, Tenure and Promotion Committee to consider the candidates for reappointment, tenure and promotion; the submission of the recommendations of the University Reappointment, Tenure and Promotion Committee to the President of the University for the President's review and consideration.

- C. Take any and all action necessary to coordinate and monitor the implementation of the annual review, reappointment, tenure and promotion procedures specified in this UW Regulation at the University.

XII. UNIVERSITY REAPPOINTMENT, TENURE AND PROMOTION COMMITTEE

In addition to reviewing reappointment, tenure, fixed term, and promotion cases for which it is assigned, a second function of the University Reappointment, Tenure and Promotion Committee shall be to determine if the standards enumerated in Section III above are being consistently applied campus-wide by examining the procedures and general eligibility qualifications of candidates recommended and not recommended by the college committees for promotion, tenure, or reappointment. In order to make this determination, the University Reappointment, Tenure and Promotion Committee shall consider the recommendations from colleges. Apparent policy inconsistencies will be described in writing, and returned to the college committee and the dean for future assessment, and/or the Committee may make recommendations to the Provost and Vice President for Academic Affairs for other appropriate action.

Further, the reappointment, tenure and promotion committees of the college and University should be alert to possible irregularities at whatever level in following these procedures and should investigate and make appropriate recommendations wherever procedural integrity is not maintained. Should this procedure not lead to corrections the committees should make a full report of violations to the Faculty Senate and the Faculty Academic Standards, Rights, and Responsibilities Committee.

Responsible Division/Unit: Office of the Provost and Vice President for Academic Affairs

Source: None

Links: <http://www.uwyo.edu/regs-policies>

Associated Regulations, Policies, and Forms: None

History:

University Regulation 803; adopted May 6-8, 2009 Board of trustees meeting
Revisions adopted 5/13/2015 Board of Trustees meeting
Reformatted 7/1/2018: previously UW Regulation 5-803, now UW Regulation 2-7
Revisions adopted 6/12/2019 Board of Trustees meeting (effective 7/1/2019)

1 **Resolution in Support of Academic Affairs' Proposed Changes to Regulation**
2 **2-7; Procedures for Reappointment, Tenure, Promotion and Fixed-Term and**
3 **Corresponding SAPPs 2-7.1 and 2-7.2**

4
5 **WHEREAS**, at the September 2016 Board of Trustees meeting, the Board approved
6 review by UW Administration of UW's current regulatory structure, to include the
7 following:

- 8 1) Phasing out presidential directives;
- 9 2) Defining regulation versus policy/procedure;
- 10 3) Creating an online manual, including a new "look" and format for the
11 regulations; and
- 12 4) Updating the substance of the regulations, policies, and procedures as
13 needed, including determining whether there are any substantive gaps; and
14

15 **WHEREAS**, the new structure will involve three levels of policies:

- 16 1) Governing Regulations (Level A),
- 17 2) Standard Administrative Policies and Procedures (Level B), and
- 18 3) Department/Unit Administrative Policies and Procedures (Level C); and
19

20 **WHEREAS**, the University's Routing Process for new or revised UW Regulations
21 includes review by the Chair of the Faculty Senate; and
22

23 **WHEREAS**, the Chair of the Faculty Senate requested that the Faculty Senate Executive
24 Committee review, and that the Faculty Senate approve, some modifications to the
25 regulations proposed by Academic Affairs; and
26

27 **WHEREAS**, the changes to these Regulations have important implications to the
28 University Faculty and to the welfare of the University;
29

30 **THEREFORE, BE IT RESOLVED** by the Faculty Senate of the University of Wyoming
31 that Faculty Senate supports the adoption of the changes to UW Regulation 2-7;
32 Procedures for Reappointment, Tenure, Promotion and Fixed-Term and to the
33 Corresponding SAPPs 2-7.1 and 2-7.2, as proposed by Academic Affairs with the
34 adoption of the tracked change amendments approved by the Faculty Senate as shown
35 on the attached versions.

UNIVERSITY OF WYOMING REGULATIONS

Subject: Academic Class Management
Number: UW Regulation 2-100



I. PURPOSE

To describe academic class management procedures related to class sizes, the structure for the class numbering system, class meeting times, ~~and~~ final examinations, and course syllabus requirement.

II. DEFINITIONS

Course: Any class, laboratory or other group educational opportunity offered at the University for academic credit for which students are eligible to enroll.

Syllabus: A schedule of class topics and activities that also includes policies related to the administration of the course.

H.III. CLASS NUMBERING STRUCTURE

University classes shall be divided into the following categories:

- A. Certain remedial classes giving no credit toward graduation are designated by numbers in the 0XXX series. Remedial classes offer instruction which is normally available in secondary schools or community colleges, but which must be offered on campus to effect the mandate of the University.
- B. Undergraduate student classes have numbers at the 1000, 2000, 3000, and 4000-levels.
- C. Graduate student classes have numbers at the 5000 and 6000-levels.
- D. “Dual-listed” classes bear both the 4000 and the 5000-level numbers and can be taken by undergraduate students, who typically will register for 4000-level number, and by graduate students, who will register for 5000-level number.
- E. “Stacked classes” are nested skills-based classes. In a Stacked-class, all of the students registered for the 1000 to 5000-level classes meet with the instructor for class instruction at the same time.

- F.** Undergraduate and graduate classes are classified into either group-instruction, or individualized-instruction. Group-instruction, or Group 1 classes include: Lecture, Laboratory, Discussion, Seminar, Recitation, and Studio. Individualized-instruction, or Group 2 classes include: Lesson, Internship, Readings, Clerkship, Practicum, Independent Study, Independent Research, Thesis Research, Dissertation Research, and Continuing Registration. Extension courses carry no credit, charge no tuition, are usually self-paced, and do not lead to a degree. The Office of the Registrar does not schedule a final exam for Extension courses.
- G.** Lower division classes are those designed primarily for freshmen and sophomores and designated by numbers between 1000-1999 and 2000-2999. A lower division class surveys the discipline to introduce broad basic concepts, skills, and techniques. 2000-level classes may have prerequisite classes or require prerequisite knowledge that would be equivalent to that learned in a prerequisite class as determined by a placement exam or other means.
- H.** Upper division classes are those designed primarily for juniors and seniors and are designated by numbers between 3000-3999 and 4000-4999. Upper division classes are characterized by the following criteria.
1. The class must:
 - a. Build upon concepts, techniques and skills learned in lower division classes by presenting advanced concepts, requiring well developed analytical skills, or encouraging the abilities to synthesize and create; and
 - b. Require significant prerequisites such as:
 - 1) substantial general introduction in the discipline or related areas, as evidenced by specific collegiate classes as prerequisites; or
 - 2) a general educational background at the collegiate level, as evidenced by multiple prerequisites;
 - 3) acceptance into or advanced standing in a recognized professional program; or
 - 4) appropriate progress in program.
 2. 4000-level classes should contain specific content at a level to prepare students for either graduate study or entering the work force. Class content at the 4000-level should normally have a relatively deep and narrow focus. Since some 4000-level classes can be utilized for graduate credit, these classes should generally be restricted to either seniors or graduate students.

- I. Classes designed primarily for graduate students shall be designated by numbers between 5000-5999. Graduate classes are normally open only to students who have been admitted to graduate study; however, advanced undergraduate students may be permitted to take these classes.
 1. 4XXX classes can be dual-listed as 5XXX classes provided additional requirements have been approved by the University Course Review Committee of Faculty Senate.
 2. Classes designed primarily for Law, Pharmacy and WWAMI students shall be designated by numbers between 6000-6999.

III.IV. CLASS SIZES

Class sizes for group instruction (Group 1) for the fall and spring semester are governed by the following rules:

- A. When the enrollment in a Group 1 class numbered 1000-4000 is fewer than ten students one week before the first day of classes, the head of the department offering the class must justify the offering for that enrollment period to the dean of the college or School in which the department is located. Should the dean fail to concur in the justification, the class shall be cancelled. Should the dean concur, they will appeal to the Provost's Office for a waiver of this regulation. If the Provost's Office concurs, the class will not be cancelled.
- B. When the enrollment in a Group 1 class numbered 5000 or 6000 is fewer than five students one week before the first day of classes, the head of the department offering the class must justify the offering for that enrollment period to the dean of the college or School in which the department is located. Should the dean fail to concur in the justification, the class shall be cancelled. Should the dean concur, they will appeal to the Provost's Office for a waiver of this regulation. If the Provost's Office concurs, the class will not be cancelled.
- C. When the enrollment in a dual-listed and/or crosslisted Group 1 class/section is fewer than ten total students (unless at least five of them are graduate students) one week before the first day of classes (across the two sections), the head of the department offering the class must justify the offering for that enrollment period to the dean of the college or School in which the department is located. Should the college or School dean fail to concur in the justification, the class shall be cancelled. Should the dean concur, they will appeal to the Provost's Office for a waiver of this regulation. If the Provost's Office concurs, the class will not be cancelled.

IV.V. CLASS MEETINGS OUTSIDE SCHEDULED TIMES

Faculty will hold all required class sessions and examinations in the class hours as specified in the official class schedule and course syllabus. This shall not preclude scheduling extra class meetings for review or special help where this proves necessary or beneficial, as long as attendance at the extra meetings is entirely at the student's option and not required or graded work is not done at these sessions. If field trips, additional activities, or other academically legitimate programming are required in a class, those activities and times must be communicated to students with reasonable notice, and must have the approval of the Department Chair and Dean.

V.VI. FINAL EXAMINATIONS

A. Authorization for Scheduling

The Registrar is authorized to schedule final examinations. With only the exceptions outlined below, exams will be given at the designated times. The examination schedule shall be published at least one month before the first day of final examinations.

Exceptions for which no examination time will be shown in the final examination schedule are: (1) all classes listed entirely as TBA; (2) classes blocked to the first half of semester; (3) classes meeting off campus; (4) extension classes; (5) student teaching; and (6) labs, discussions, and recitations.

B. Group Examinations

In classes in which the same material is taught in more than one section and a common examination is deemed desirable, a group examination will be scheduled by the Registrar if such can be arranged within the limits of the examination period and without creating serious conflicts.

C. Student Scheduling Exceptions

No student shall be required to take more than two final examinations in any one day. Along with the specific final examination schedule, the Registrar shall publish a system of priorities that will determine which class is expected to offer an examination at a different time for a student who is scheduled for more than two final examinations in one day or more than one at the same hour.

D. Final Examination Preparation Day

At least one final examination preparation day shall separate the last day of classes and the first day of final examinations.

E. Reading Week

To avoid excessive pressure on students during the week before final examinations, no examination or graded exercise should be given in the last week of classes unless it is essential for the effective functioning of the class, it is a makeup test or examination, or it is a regularly scheduled weekly exercise. If an examination or graded exercise in the last week of classes is deemed essential, the instructor must notify the students of it in a class syllabus distributed at the beginning of the class. Examinations or graded exercises given during the last week of classes are appropriate in the following circumstances:

1. Laboratory examinations in those classes that do not have a separately scheduled final examination for the laboratory portion of that class.
2. Evaluations in classes that require individualized performances that cannot be incorporated into a scheduled final examination, such as recitations and musical performances.

F. Take-Home Finals and Summative Class Projects

Take-home finals and summative class projects may be distributed prior to final week and shall be due no earlier than the regularly scheduled final examination time for that class. If, in the opinion of the instructor and department head, a final examination would be inappropriate for a particular class a final examination need not be administered.

G. Grade of I

Instructors should make every effort, but are not obligated to give final examinations before the scheduled time to students who, for legitimate reasons connected with official University activities, cannot take the final examination at the scheduled time. In such cases, students are entitled to receive a grade of "I", subject to the usual procedures and conditions of the grade of "I".

H. Exemptions

The College of Law and the WWAMI (Washington, Wyoming, Alaska, Montana and Idaho) medical education program are exempt from this final examination policy. Exemptions to this policy may also apply when students are approved for reasonable accommodations through the University's Disability Support Services ("DSS") office. In those instances, instructors should work with DSS and the student to implement the applicable approved accommodations regarding courses and final examinations.

VI.VII. COURSE SYLLABUS

The instructor of a course shall provide a copy of the course Syllabus to students at the beginning of the semester, which shall be distributed via the University's learning management system. The instructor will post an outline Syllabus publicly as early as is practicable, preferably not later than two (2) weeks prior to the commencement of the term. The President, through the Provost, shall establish and maintain a Standard Administrative Policy and Procedure outlining the required contents of the Syllabus.

Responsible Division/Unit: Office of the Provost and Vice President for Academic Affairs

Source: None

Links: <http://www.uwyo.edu/regs-policies>

Associated Regulations, Policies, and Forms: None

History:

University Regulation 400, Revision 1; adopted 7/17/2008 Board of Trustees meeting
Revisions adopted 5/13/2015 Board of Trustees meeting
Reformatted 7/1/2018: previously UW Regulation 6-400, now UW Regulation 2-100
Revisions adopted 6/12/2019 Board of Trustees meeting

University Regulation 403, Revision 2 and Change 1; adopted 7/17/2008 Board of Trustees meeting
Revisions adopted 6/16/2015 Board of Trustees meeting
Reformatted 7/1/2018: previously UW Regulation 6-403, now UW Regulation 2-102
Revisions adopted and moved to UW Regulation 2-100 on 6/12/2019 Board of Trustees meeting

University Regulation 405; adopted 7/17/2008 Board of Trustees meeting
Revisions adopted 3/24/2016 Board of Trustees meeting
Reformatted 7/1/2018: previously UW Regulation 6-405, now UW Regulation 2-104
Revisions adopted and moved to UW Regulation 2-100 on 6/12/2019 Board of Trustees meeting

University Regulation 721, Revision 1; adopted 7/17/2008 Board of Trustees meeting
Revisions adopted 6/16/2015 Board of Trustees meeting
Reformatted 7/1/2018: previously UW Regulation 6-721, now UW Regulation 2-112
Revisions adopted and moved to UW Regulation 2-100 on 6/12/2019 Board of Trustees meeting

1 **Faculty Senate Resolution 441**

**Introduced by
Executive Committee**

2
3 **Resolution in support of changes to University Regulation 2-100 Academic Class
4 Management**

5
6 **WHEREAS**, at the September 2016 Board of Trustees meeting, the Board approved review by UW
7 Administration of UW’s current regulatory structure, to include the following:

- 8 1) Phasing out presidential directives;
9 2) Defining regulation versus policy/procedure;
10 3) Creating an online manual, including a new “look” and format for the regulations; and
11 4) Updating the substance of the regulations, policies, and procedures as needed, including determining
12 whether there are any substantive gaps; and

13
14 **WHEREAS**, The new structure will involve three levels of review:

- 15 1) Governing regulations (Level A)
16 2) Standard administrative policies and procedures (Level B), and
17 3) Department/Unit Administrative Policies and Procedures (Level C); and

18
19 **WHEREAS**, the University’s Routing Process for new or revised UW Regulations includes review by
20 the Chair of the Faculty Senate; and

21
22 **THEREFORE, BE IT RESOLVED** by the Faculty Senate of the University of Wyoming that Faculty
23 Senate supports the adoption of revisions to UW Regulation 2-100; Academic Class Management, with
24 the adoption of the tracked change amendments approved by both ASUW and the Faculty Senate as
25 shown on the attached version.

ACADEMIC AND STUDENT AFFAIRS

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: New Degree Program Progress Report-Carman

- PUBLIC SESSION
- EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:

- Yes
- No

FOR FULL BOARD CONSIDERATION:

- Yes

[Note: If yes, materials will also be included in the full UW Board of Trustee report.]

- No

Attachments/materials are provided in advance of the meeting.

EXECUTIVE SUMMARY:

A follow-up to review and discuss new degree program progress report.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

Committee requested this topic for discussion and review.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

No action required.

PROPOSED MOTION:

No motion required.