UW Board of Trustees Committee on Academic and Student Affairs
Agenda-FINAL 03.013.2024
March 20, at 3:30 p.m.

Closed Session: If necessary, a separate agenda and materials for the Closed Session.

AGENDA ITEM TITLE: Low-Producing Programs-UW Regulation 2-13 Recommendations (Carman)

☒ OPEN SESSION
☐ CLOSED 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 the Standard Administrative Policy and Procedure: Academic Program Review, the Provost's Office must annually review degree production for all academic programs. Per UW Regulation 2-13, the Provost and President will make final recommendations for reorganization, consolidation, reduction, or discontinuance to Board of Trustees.

In January 2023, Provost Carman requested a review by colleges and schools of programs that were identified as low-producing. Reports from the colleges and schools on these programs were due July 31, 2023. They included narratives that address the low-completion rate of each program and proposals to either continue, or recommend for reorganization, consolidation, reduction, or discontinuance pursuant to UW Regulation 2-13. In September and November 2023, Provost Carman provided the list of identified programs and the data to the Board of Trustees.

Following the November meeting, Provost Carman initiated the 2-13 process with the programs recommended for discontinuance below:

- B.S. in Zoology & Physiology
- B.A. in French
- B.A. in German
- B.A. in Psychology
- B.A. in Geology and Earth Sciences
- B.A. in Mathematics
- B.A. in Statistics
- M.A. in Philosophy
- M.A. in Sociology

- Ph.D. in Educational Administration
- Ph.D. in Higher Education Administration
- M.S. in Instructional Technology
- Ph.D. in Instructional Technology
- Ed.D. in Adult & Post-Secondary Education
- Ph.D. in Education-Literacy Education
- Ph.D. in Education-Mathematics Education
- Ph.D. in Education-Science Education

President Seidel approved the recommendation, and the Faculty Senate was notified on November 28, 2024. The Faculty Senate reviewed the proposals and voted to approve the recommendations at their March 4, 2024, meeting. Provost Carman solicited and received feedback from Department Heads, as well as faculty and staff in the departments of those programs. Provost Carman will review faculty and staff feedback and have an open discussion on Tuesday, March 19th. Provost Carman will provide final recommendations to President Seidel, who will then provide the recommendations to the Board of Trustees at the March meeting. Enrollment to all the programs identified was suspended in fall of 2023 or prior (as noted in the teach-out plans). Teach-out plans and primary contacts are provided in the supplemental materials. Upon approval, the process for discontinuance in accordance to university regulation will begin in April, 2024. There is no recommended termination of any tenured faculty, fixed-term academic personnel, or staff in the proposed programs.

PRIOR RELATED COMMITTEE DISCUSSIONS/ACTIONS:
The Board of Trustees was updated on this review and process in September and November of 2023.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
UW Regulation 2-13 requires that the President shall make a final recommendation to the Board of Trustees upon conclusion of a review of a program.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Approval, modification, or disapproval of UW Regulation 2-13 recommendations from Provost and President.

PROPOSED MOTION:
"I move to approve the President and Provost's recommendations for the UW Regulation 2-13 programs reviewed for reorganization, consolidation, reduction, or discontinuance as presented in the materials."

PRESIDENT'S RECOMMENDATION:
The President recommends approval.

Teach-Out Plans for Discontinued Programs

B.S. in Zoology & Physiology
Enrollment in the B.S. in Zoology and Physiology was suspended in fall of 2023, there are currently no students enrolled in the program. **Primary contact**: Scott Seville

B.A. in French
There are currently 6 students enrolled in the BA in French and Secondary Bachelors in French. Individual students who opt to complete the French and German majors and teaching majors that they have declared will receive individualized semester-by-semester teach-out plans customized to their needs. **Primary contact:** Joy Landeria

B.A. in German
There are currently 7 students enrolled in the BA in German and Secondary Bachelors in German. Individual students who opt to complete the French and German majors and teaching majors that they have declared will receive individualized semester-by-semester teach- out plans customized to their needs. **Primary contact:** Joy Landeria

B.A. in Psychology:
Admission to the B.A. in Psychology was suspended in 2015. Any remaining students can still complete the degree as all required coursework has continued under the B.S. degree program. **Primary contact:** Sean McCrea

B.A. in Geology and Earth Sciences
Admission to the B.A. in Geology and Earth Sciences was suspended in fall of 2023. There are currently 9 students enrolled in the program. The Department of Geology and Geophysics voted to discontinue the B.A. in Geology and Earth Sciences due to low enrollment. All currently enrolled students in these programs either (1) will complete their degree by Spring 2027, or (2) will enroll in the B.S. in Geology or B.S. in Environmental Geology and Geohydrology.

All required classes in the B.A. in Geology and Earth Sciences will still be offered in the department since they are either required or elective in the other two majors, namely the B.S. in Geology and the B.S. in Environmental Geology and Geohydrology. There is indeed a ~90% overlap in the requirements between the discontinued B.A. in Geology and Earth Sciences and the B.S. in Geology.

If necessary, the curriculum committee of the department will facilitate the substitution of classes for students who want to transfer from the discontinued B.A. in Geology and Earth Sciences to the B.S. in Geology. **Primary contact:** The name of a primary contact for Admissions to consult with when advising students is the undergraduate coordinator of the department, Prof. Jacqueline Shinker.

B.A. in Mathematics
Admission to the B.A. in Mathematics was suspended in fall of 2023. There is currently 1 student enrolled in the program. The Department of Mathematics and Statistics voted to discontinue the B.A.

in Mathematics due to low enrollment. All currently enrolled students in these programs either (1) will complete their degree by Spring 2027, or (2) will enroll in the B.S. in Mathematics.

All required classes in the B.A. in Mathematics will still be offered in the department since they are either required or elective in the other major, namely the B.S. in Mathematics. There is essentially a 100% overlap in the requirements between the discontinued B.A. in Mathematics and the B.S. in Mathematics. **Primary contact:** Jason Williford.

B.A. in Statistics
Admission to the B.A. in Statistics was suspended in fall of 2023. There is currently 1 student enrolled in the program. The Department of Mathematics and Statistics voted to discontinue the B.A. in Statistics due to low enrollment. All currently enrolled students in these programs either (1) will complete their degree by Spring 2027, or (2) will enroll in the B.S. in Statistics.

All required classes in the B.A. in Statistics will still be offered in the department since they are either required or elective in the other major, namely the B.S. in Statistics. There is essentially a 100% overlap in the requirements between the discontinued B.A. in Statistics and the B.S. in Statistics. **Primary contact:** Jason Williford.

M.A. in Philosophy
The M.A. in Philosophy has been on suspended admissions since 2017. Given the Graduate Education policy that "Master's students have six calendar years to complete their degrees from the beginning of the first course taken and listed on the program of study, including any transfer courses," there are no students that are eligible for a teach-out plan. **Primary Contact:** Robert Colter

M.A. Sociology:
The M.A. Sociology program has been on suspended admissions status since 2017. All students in this program have either completed their degree or have exceeded the time requirements set forth by the University to do so. As such, we do not anticipate a need to contact any stopped-out students or to develop additional teach-out plans. **Primary Contact:** Eric Wodahl

Ph.D. in Educational Administration
There are currently no students enrolled in the Ph.S. in Educational Administration and enrollment has been suspended. **Primary contact:** Jenna Shim

Ph.D. in Higher Education Administration
Most students in the program have completed their studies and graduated. There are currently five students remaining, either in the process of completing their dissertations or finishing their final courses. Among them, three have already formed dissertation committees. The remaining two students are expected to wrap up their coursework within the next two semesters, and these courses will be available since they are the same courses as the ones we require for the Ed.D. program in Higher Education Administration. They will then proceed to form their dissertation committees. **Primary contact:** Jenna Shim

M.S. in Instructional Technology
There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

Ph.D. in Instructional Technology
There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

Ed.D. in Adult & Post-Secondary Education
There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

Ph.D. in Education-Literacy Education
There are currently no students enrolled in the program. There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

Ph.D. in Education-Mathematics Education
There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

Ph.D. in Education-Science Education
There are currently no students enrolled in the program and enrollment has been suspended. **Primary contact:** Jenna Shim

NAME OF COMMITTEE
COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: UW Regulation 2-13 Biodiversity Institute move to Haub School (Carman)

☒ OPEN SESSION
☐ CLOSED 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 University Regulation 2-13, the Provost and Executive Vice President, in consultation with Vice President of Research and Economic Development, Director, Biodiversity Institute (BI), and Dean, Haub School of Environment and Natural Resources (Haub School), propose that the Biodiversity Institute be moved to the Haub School in the UW organizational structure and budget.

The University of Wyoming's Biodiversity Institute was established in 2012 when the building for Berry Biodiversity Conservation Center was constructed. At that time, BI was part of the Haub School. In 2018, a proposal was developed in to transfer BI responsibility to the Research and Economic Development Division when the original funded ended. The recommendations presented to the UW Board of Trustees in the materials include: "(1) leveraging BI practices to benefit STEM education and outreach across UW and partnering with the Science Initiative; (2) maintaining administrative support for the Program in Ecology; (3) continuing support of the Museum of Vertebrates and its curation; and (4) developing a capacity to create "Broader Impacts" plans for research proposals."

PRIOR RELATED COMMITTEE DISCUSSIONS/ACTIONS:

WHY THIS ITEM IS BEFORE THE COMMITTEE:
University of Wyoming Regulation 2-13 requires that the Board approve all academic program reorganization, consolidation, reduction, and discontinuance.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Consideration for approval of the Biodiversity Institute move the Haub School.

PROPOSED MOTION:
"I move to approve the UW Biodiversity Institute be moved to the Haub School in the UW organizational structure and budget."

Office of Academic Affairs
Dept. 3302 • 1000 E. University Avenue
Laramie, WY 82071
(307) 766-4286 • (307) 766-6476 • fax (307) 766-2606
www.uwyo.edu/acadaffairs

October 11, 2023

Re: UW Regulation 2-13: Biodiversity Institute

Under the auspices of University Regulation 2-13, the Provost and Executive Vice President, in consultation with Vice President of Research and Economic Development, Brent Ewers, Director, Biodiversity Institute (BI), and John Koprowski, Dean, Haub School of Environment and Natural Resources (Haub School), proposes that the Biodiversity Institute be moved to the Haub School in the UW organizational structure and budget. The transfer of the Biodiversity Institute to the Academic Affairs Division has the support of the Provost's Office. This document outlines plans for the transition of staff and budget to ensure the long-term viability and growth of the BI.

Background:

The University of Wyoming's Biodiversity Institute was established in 2012 when the building for Berry Biodiversity Conservation Center was constructed. At that time, BI was part of the Haub School. In its beginning years, generous contributions from Bob and Carol Berry provided resources through the Wolf Creek Foundation. Once that funding ended, UW decided to close BI, which resulted in a negative reaction from BI supporters. In response to this reaction, a proposal was developed in 2018 to transfer BI responsibility to the Research and Economic Development Division. The recommendations presented to the UW Board of Trustees included: "(1) leveraging BI practices to benefit STEM education and outreach across UW and joining forces with the Science Initiative; (2) maintaining administrative support for the Program in Ecology; (3) continuing support of the Museum of Vertebrates and its curation; and (4) developing a capacity to create "Broader Impacts" plans for research proposals."

Since that transfer, there has been mixed success in implementing these recommendations. Now there is a thriving interdepartmental Graduate Program in Ecology and Evolution (PiEE) and an outstanding Museum of Vertebrates. Both activities are not implemented by or financially supported by BI. The public engagement goal of BI is implemented extremely well with dedicated staff that conduct a set of activities serving local and state-wide communities. BI does not administer any formal courses or education programs (e.g., minor, or major). It also does not provide University-wide assistance for developing a wide spectrum of broader impacts activities nor does it have formal collaborations with the Science Initiative.

The mission of BI is highly relevant to Wyoming communities. Since its beginning, BI has focused on the interplay between society and biological diversity. It aims to foster the knowledge, appreciation, and conservation of biological diversity through (1) innovative research, education, and outreach, and (2) engaging a broad audience in the scientific process of exploring biodiversity. Both activities are broader than the mission of the Research and Economic Development Division, which focuses on expanding externally funded research enterprises across the campus and on fostering economic development across the state. Therefore, we believe that the mission of the BI will be better served by transferring it to an academic unit that is focused on engagement, education, and research in environmental sciences.

The Haub School provides an excellent home for the BI. Its mission to advance the understanding and resolution of environment and natural resource issues aligns with the BI mission as biological diversity is a major component of natural resources. Like BI, the Haub School also uses strategies of engagement with communities to explore the understanding of natural resources and to address issues where competing societal interests are at play.

Because of overlapping missions and synergistic strengths, the transfer of BI to the Haub School will make BI economically sustainable while fostering the expansion of its activities and impacts. This proposal was discussed with Dean Rasco of the College of Agriculture, Life Sciences, and Natural Resources. She agreed with the proposal. The proposal was also discussed with the current staff of the BI; they agreed with the transfer. Some of the staff members have been with the BI since its inception, and thus have already worked under the auspices of the Haub School. Finally, the proposal was discussed with the faculty and staff of the Haub School and the Haub School's advisory board; the Haub School would welcome the BI with a sustainable plan in place that includes a core of positions supported by the central block grant.

BI in Haub School

Activities:
BI in the Haub School will continue its private fundraising and public engagement activities. It will also develop formal educational and research activities over time that can include:
> Wyoming Naturalist certification/certificates
> A Biodiversity minor
> Biodiversity faculty affiliations across the campus
> Biodiversity events for research and education (e.g. workshops and research seminars)
> Fostering interdisciplinary projects in biodiversity through affiliated faculty

Financial Sustainability:
- The transfer of BI to the Haub School will increase **efficiency**. Currently BI has functions such as accounting that will not be needed in the Haub School, which has existing business operations functions that can manage BI needs. BI also has functions (communication and marketing) that are needed in the Haub School, whereas BI lacks events management expertise, which is available in the Haub School.
- The transfer of BI to the Haub School will **expand opportunities** for financial stability. The existing (private fundraising) will be streamlined and more effective because of the overlap between donor bases and the shared major gift officer for BI and the Haub School. New activities will allow the Haub School to generate income through tuition revenues and indirect costs on externally funded grants, which will serve as the home department/college for such revenue return.
- **Core support** for the existing permanent staff will be a key to the success of BI. In the next budget request, UW will include an increase in the block grant to the Haub School to ensure support for the core staff of BI. Until the block grant increase is in place, REDD will continue to support the core staff in BI (Dorothy Tuthill, Erendira Morales, and Mason Lee).
- **Transition funding** from REDD will assist with an efficient transition. These funds will support the three core positions listed above in the Haub School.
- **Endowment funds and current balances** will be transferred to the Haub School for continued growth to support BI activities in accordance with the intent of each gift.

Staff positions

Director: After BI transfer, this position will report to the Dean of Haub School, which will be responsible for the selection, appointment, and compensation for this position.

Associate Director: This position will be continued after transfer.

Project Coordinator: This position will be continued after transfer through support from an increase in the block grant; until this increase is realized, REDD will continue to provide support for the Project Coordinator's salary.

Communications and Marketing Specialist: This position will be continued after transfer through support from an increase in the block grant; until this increase is realized, REDD will continue to provide support salary for up to three years.

The following positions in the BI are currently unoccupied or covered through hourly employees:

Research Scientist, Asst- This position is expected to provide broader impacts and help in proposal preparation across the campus. This function will be transferred to the newly reconfigured EPSCoR office and will not continue in the transferred BI.
Accountant- This function for the BI will be covered by the existing accounting staff in the Haub School.

Website Designer and Developer- The current BI website was designed outside the UWYO website. It will be realigned with the UW website. A separate full-time staff person will not be needed after the first year when the website and programmatic materials are transferred and incorporated with the UWYO/Haub School websites with the potential to share this position across campus a possibility.

Space

The BI is housed in the Berry Biodiversity Conservation Center (BBCC); however, the BI and the BBCC are not synonymous. Space in the BBCC is controlled by the university process through Operations Division.

2nd Floor BBCC BI Suite: The current BI suite of space (Rooms 227, 327 – conference rooms, 231, 233, 235) and offices in 108, 208 and 308 will be transferred to the Haub School; the Haub School graduate students with an emphasis in biodiversity can be considered through current grad student space assignment practices for space in the graduate student offices under BI but shared with other biodiversity units in 210 and 310. These space assignments will permit the Haub School and BI to be integrated quickly and facilitate the continued growth of partnerships.

This organizational change will follow UW Regulation 2-13 due to the transfer of the BI to an academic unit.

Regards,

Kevin R. Carman
Provost and Executive Vice President

CC:
Ed Seidel, President
Parag Chitnis, VP for Research and Economic Development
John Koprowski, Dean, Haub School
Brent Ewers, Director, Biodiversity Institute

3

NAME OF COMMITTEE
COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Request for Authorization: Bachelor of Science Applied Software Development (Carman, Allen, Barrett)

☒ OPEN SESSION
☐ CLOSED 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 Applied Software Development degree program combines practical experience and knowledge of modern programming languages, tools, and processes used in the rapidly evolving field of Software Development. The courses cover a wide range of topics that are sought after by employers for web, mobile and other front-end application development including the use of modern programming languages, development environments, databases, testing and collaboration pipelines, operational infrastructure, and security practices. The program incorporates, throughout the curriculum, opportunities for students to engage in real-world software development by working in teams to develop, implement, present, and refine solutions for problems proposed by industry and other clients. The proposed degree has completed the review process and we seek approval of the Request for Authorization.

PRIOR RELATED COMMITTEE DISCUSSIONS/ACTIONS:
The Trustees approved a Notice of Intent for this degree in January 2023.

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 Bachelor of Science Applied Software Development.

PROPOSED MOTION:
"I move to approve the Request for Authorization for the Bachelor of Science Applied Software Development."

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

March 5, 2024

Board of Trustees:

This letter serves as a Letter of Commitment for the Bachelor of Science in Applied Software Development Degree.

Needs
The Applied Software Development degree program combines practical experience and knowledge of modern programming languages, tools, and processes used in the rapidly evolving field of Software Development. The courses cover a wide range of topics that are sought after by employers for web, mobile and other front end application development including the use of modern programming languages, development environments, databases, testing and collaboration pipelines, operational infrastructure, and security practices. The program incorporates, throughout the curriculum, opportunities for students to engage in real-world software development by working in teams to develop, implement, present, and refine solutions for problems proposed by industry and other clients.

Requirements
The B.S. in Applied Software Development has been designed in partnership with colleagues from many Wyoming community colleges. Students will be able to enter the program at UW with a two-year degree from a partnering community college or as freshman on the UW campus. Students who enter as freshman will complete the required software development courses during the first two years through the course sharing platform. These courses will be taught by partnering community college professors. Currently there are no plans to teach the first two years of software development courses on the UW campus.

Resources
The Applied Software Development Program will leverage some existing courses in the Computer Science Department to fulfill course requirements. A Curriculum Committee with members from both EECS and the SoC meets weekly to discuss course utilization (optimization) and any reorganization or revision to existing EECS courses to ensure smooth articulation for Software Development students as well as support increased enrollment in courses currently underutilized or currently not taught (such as

Software Engineering). Additionally, the Curriculum Committee will determine the best system to support both current CS students as well as incoming Software Development students in existing CS courses, such as the creation of additional sections for SDEV students. The School of Computing, in partnership with EECS, has developed the ten new courses described above for the Applied Software Development Program.

The B.S. in ASD does not require significant additional resources to be developed and implemented. A preliminary budget, including potential funding sources, projected expenses and revenues, and potential faculty, academic professionals, lecturers, professors of practice, and staff needs is provided in the feasibility study.   The program is anticipated to be self-supporting through tuition dollars within five years of launching. Additional lecturers may be needed in the future, but we anticipate these positions being filled through strategic hires in the School of Computing.   Students in the program will be advised by staff in the Advising Center for Educational Success (ACES) and the courses will be taught by SoC hires or current faculty in EECS.

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 program.

Best,

Kevin Carman
Provost and Executive Vice President

University of Wyoming

College of Engineering and Physical Sciences

Cameron H. G. Wright, Ph.D., P.E. | **Dean**
Dept. 3295 | 1000 E. University Ave. | Laramie, WY 82071-2000
Tel. 307.766.4992 | Fax 307.766.4444 | www.uwyo.edu/ceas

September 14, 2023

To: University of Wyoming Board of Trustees

Subj: Support for B.S. in Applied Software Development Degree Program

I write this today to express my support and commitment for the proposed new B.S. in Applied Software Development (ASD) degree, being submitted by the School of Computing. The college and the university will benefit from having this degree as a choice for our students, and it can help fill a growing need for "in demand" workforce both in Wyoming and elsewhere. The EECS department is in favor of the proposed degree, which is important in that the EECS department will play an important collaborative role in the degree program. Additionally, the new degree will share some courses with the existing Computer Science BS program, and some of the new ASD courses that will come on line will provide more elective options for Computer Science majors.

I conclude that this new proposed degree program is in the best interests of the University of Wyoming and this college, and has a high probability of growing our undergraduate student population by providing more pathways into computing-related careers.

I recommend approval of this proposed degree program.

Best regards,

Cameron H. G. Wright
Carrell Family Dean
Professor of Electrical and Computer Engineering

Date: December 6, 2023

To: University of Wyoming Academic Planning Committee, Board of Trustees, and Related Approval Committees

Subject: Support for B.S. in Applied Software Development Degree Program

I am excited to share my support for the B.S. in Applied Software Development (ASD) degree proposed by the School of Computing.

Analysis completed by the Office of Online and Continuing Education at the request of the School of Computing found both employer demand related to Software Development as well as student demand for programs in this discipline. Additionally, the Office will support the School to develop the program using instructional modalities it feels best attracts a student audience and delivers on learning outcomes, whether this includes in-person learning, online learning, or a combination of delivery methods.

The University of Wyoming, College of Engineering and Physical Sciences, and all their related collaborators and students will benefit from the establishment of this degree, and I look forward to learning how the Online Learning Office can continue to support the School in making this a standout learning experience with graduates who thrive in their careers.

Sincerely,

MATT GRISWOLD, ED.D.

Vice Provost, Online and Continuing Education
The University of Wyoming | Academic Affairs
mgriswo1@uwyo.edu | 608.609.6033

RE: Letter of Support for B.S. in Applied Software Development Degree

August 28, 2023

Dear Board of Trustees,

I am writing to express my support and commitment for the new B.S. in Applied Software Development (ASD) degree submitted by the School of Computing for approval. Several EECS faculty have been involved in the design of the curriculum. I understand that the new degree will share some courses with the existing Computer Science BS program; and some of the new ASD courses broaden the elective options for COSC majors. I believe this new degree program is in the best interest of the University of Wyoming and will help grow our student population by providing more pathways into computing related careers. EECS looks forward to working with the School of Computing to share in the development and un-folding of the ASD program.

Sincerely,

Bryan L. Shader

Bryan Shader
Interim Department Head
Electrical Engineering and Computer Science

Office of the Chair
English Department, Box 3353
1000 East University Avenue
Laramie, WY 82071-2000

Letter of Support for B.S. in Applied Software Development Degree

January 22, 2024

Dear Board of Trustees:

The English Department is working with Vice Provost Griswold to provide COM courses for online students including options for COM 1, 2, and 3. The COM 3 course, ENGL 4010: Technical Writing in the Professions will be available for online students, including students in the B.S. in Applied Software Development. I understand that the School of Computing is also working with Vice Provost Griswold for the COM 3 online course of study.

Sincerely,

Kelly Kinney, Ph.D.
Chair, Department of English
University of Wyoming

kkinney3@uwyo.edu   307-766-6497 (office)   307-399-0805 (cell)

New Degree or Certificate Proposal Feasibility Study Template

Feasibility Study for B.S. in Applied Software Development

Executive Summary

Degree or Certificate Title: Applied Software Development

Level of Degree or Certificate: Bachelors

Delivery Mode(s): online or hybrid

Estimated Startup Cost of Degree: $78,270, already allocated to SoC

Anticipated Launch Date: Fall 2024

Description:

The Applied Software Development degree program combines practical experience and knowledge of modern programming languages, tools, and processes used in the rapidly evolving field of Software Development. The courses cover a wide range of topics that are sought after by employers for web, mobile and other front end application development including the use of modern programming languages, development environments, databases, testing and collaboration pipelines, operational infrastructure, and security practices. The program incorporates, throughout the curriculum, opportunities for students to engage in real-world software development by working in teams to develop, implement, present, and refine solutions for problems proposed by industry and other clients.

Table of Contents

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

Learning Outcomes

Curriculum Map and Program Structure

Course Descriptions

Assessment Plan

Degree Program Evaluation

New Resources Required

Substantive Change Determination

Executive Summary of Demand Statistics

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

We propose a new degree called Applied Software Development; the title emphasizes that the focus is on the use of software development techniques to create computing solutions. This program combines hands-on experience with practical knowledge to provide students with the skills to build and maintain software using modern programming languages, tools, and processes. The courses cover a wide range of topics that are sought after by employers for web, mobile, and other front-end application development including the use of modern programming languages, development environments, databases, testing and collaboration pipelines, operational infrastructure, and security practices. The program incorporates, throughout the curriculum, opportunities for students to engage in real-world software development by working in teams to develop, implement, present, and refine solutions for problems proposed by industry and other external clients. This degree program is based on and informed by existing accredited and implemented programs such as the Applied Software Engineering program at Cardiff University.

Currently UW students can only pursue a software engineering focus in a 4-year degree through the Computer Science and Computer Engineering programs. As part of accredited engineering programs these tracks require high-level proficiency in mathematics and science, with 30+ credit hours of dedicated mathematics classes. This limits opportunities for many Wyoming students to enroll in this broad and growing field of software engineering/development, especially for community college transfer students. Mathematical skills are advantageous for aspects of software engineering (estimating costs and system loads, making data driven decisions, analyzing results, using logic to verify code, developing the most efficient solutions, etc) and essential for research in software engineering, but advanced mathematics is not required for many software development tasks. Software development is concerned with writing, modifying, and debugging software for end-customer use, often with a focus on front end systems such as web development or mobile app development, engagement with end-customers and project management.

The B.S. in Applied Software Development has been designed in partnership with colleagues from many Wyoming community colleges. Students will be able to enter the program at UW with a two-year degree from a partnering community college or as freshman on the UW campus. Students who enter as freshman will complete the required software development courses during the first two years through the course sharing platform. These courses will be taught by partnering community college professors. Currently there are no plans to teach the first two years of software development courses on the UW campus.

This program aligns with the University of Wyoming's current strategic plan specifically through promoting economic options, offering diverse disciplines to strengthen Wyoming's workforce with students from diverse backgrounds, collaboration from K-12 to employment and everything in between and after.

Learning Outcomes

Students will learn how to design, code, test, and maintain high quality software of their own. Coursework will include studies in databases, systems design, and programming languages to

create scalable programs. Learning outcomes include:

- Work effectively as part of a team to develop and deliver quality software artifacts.
- Recognize the applicability of computing and evaluate its impact on individuals, organizations, and global society.
- Evaluate and use appropriate methods and professional standards in computing practice.
- Apply computing theory and programming principles to practical, secure and robust software design and development.
- Design ergonomic and aesthetic user interfaces that are accessible to a wide range of audiences.
- Demonstrate effective use of written, verbal, and non-verbal communication, employing relevant knowledge, skills, and judgment.
- Work as a professional maintaining high standards of practice, making ethical judgments and decisions, and sustaining a professional standing through a commitment to life-long learning.
- Develop an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Curriculum Map and Program Structure

Community College Courses

Course Code	Course Name	Term Taken	Credits
USP FYS	First Year Seminar / USP Elective	Fall Year 1	3
COSC 1010	Intro to Computer Science	Fall Year 1	4
INET 1650	Web Programming I	Fall Year 1	3
SDEV 1000	Software Development Skills I	Fall Year 1	3
MATH XXXX	1400 College Algebra or higher for USP Q	Fall Year 1	3
ENGL XXXX	1010 College Composition and Rhetoric or higher for COM I	Fall Year 1	3
SDEV 1200	Programming Python	Spring Year 1	3
COSC 2050	Intro to SQL	Spring Year 1	3
SDEV 1100	Software Development Skills II	Spring Year 1	3
USP PN		Spring Year 1	4
USP COM II		Spring Year 1	3
INET 2010	Data Driven Web Sites	Fall Year 2	3
SDEV XXXX	2100 Mobile Development or 2250 Web App Client Frameworks for elective	Fall Year 2	3
SDEV 2150	Agile Project Management	Fall Year 2	3
USP H		Fall Year 2	3
USP H		Fall Year 2	3
SDEV 2395	Software Development Capstone	Spring Year 2	3
SDEV 2200	Secure Software	Spring Year 2	3
SDEV 2300	DevOps	Spring Year 2	3
USP V	US & WY Constitution	Spring Year 2	3
STAT 2050	Fundamentals of Statistics	Spring Year 2	4
		CC Total	66

University of Wyoming Courses

Course Code	Course Name	Term Taken	Credits
USP *	PN	Fall Year 3	4
COSC 1030	Computer Programming	Fall Year 3	4
COMP 2000	Computing and Society	Fall Year 3	2
SDEV 3000	Foundations of Software Systems (program entry course)	Fall Year 3	3
Elective	Computing focused	Fall Year 3	3
COSC/SDEV 2030	Data Structures	Spring Year 3	4
USP COM III	ENGL 4025 Writing for the Web recommended	Spring Year 3	3
SDEV 3011	Introduction to Software Design	Spring Year 3	3
SDEV 3100	User Design Experience	Spring Year 3	3
Elective	Computing focused	Spring Year 3	3
COSC/SDEV 3765	Computer Security	Fall Year 4	3
SDEV 3020	Applied Algorithms	Fall Year 4	3
SDEV 3500	Performance and Testing	Fall Year 4	3
SDEV 4730	Mobile Application Programming	Fall Year 4	3
Elective	Emerging Tech focused	Fall Year 4	3
SDEV 4000	Advanced Programming for Developers	Spring Year 4	3
SDEV 4840	Software Engineering Environments	Spring Year 4	3
STAT 4460	Statistical Software	Spring Year 4	1
Elective	Computing focused	Spring Year 3	3
COMP 4000	Practicum I	Spring Year 4	4
		UW Total	61
		Grand Total	124

Denotes new courses

Course Descriptions

All courses will be taught online or hybrid.

- SDEV 2030: Data Structures: Investigation of techniques for program design, testing, and debugging. Data structures are studied, including stacks, queues, linked lists, binary trees, and Hashing. Sorting, recursion, strings, and arrays are also covered. Taught in appropriate high-level language (C++)
- SDEV 3000: Foundations of Software Systems: This course will give students an introduction to Linux system level programming with the Go programming language. It will provide students with an understanding of the fundamental concepts and principles of underlying software systems. Students will explore topics such as software requirements, design principles, programming paradigms, as well as software testing and maintenance.
- SDEV 3011: Introduction to Software Design: Cross Listed with COSC 3011. This course introduces the principles and practice of software design, including UML and design patterns. Uses case studies to illustrate design in action. This course includes large scale project work and theoretical aspects of OOP. Students will work in teams over the semester to accomplish a project.
- SDEV 3020: Applied Algorithms: Building on Data Structures, an understanding of algorithms and their implementation. Implementation of algorithms such as heaps, directed

and undirected graphs, sorting, Divide-and-conquer, greedy, and dynamic programming algorithm design techniques.

- SDEV 3100: User Design Experience: This course is designed to give students an understanding of crafting an enjoyable and meaningful experience for users. This course will utilize practical experience as well as a theoretical overview of concepts. This course will introduce students to the principles, methodologies, and techniques involved in designing user-centered interfaces and interactions (UIUX).
- SDEV 3500: Performance and Testing: This course provides training in the principles, methodologies, and tools used in software performance and testing processes.
- SDEV 3765: Computer Security: Cross listed with COSC3765. Security is paramount to creating software and systems. This course introduces the fundamentals of computer security and applied cryptography from theory to practice. Topics include cryptographic fundamentals, authentication, access control, network/wireless security, software security, OS security, common protocols, and ethics. Course projects will focus on developing reliable code and understanding attacks.
- SDEV 4000: Advanced Programming for Developers: This is an intensive course for the final semester of the SDEV program. This course will give students experience designed to hone their programming skills and delve into new concepts. In addition, students will be presented with concepts, techniques, and best practices used in modern software development. This course goes beyond standard programming and focuses on sharpening programming proficiency while also improving problem-solving and code optimization skills. This course will feature a project sponsored by an industry partner to give students an understanding of applying their learned skills in their "real world".
- SDEV 4730: Mobile Application Programing: Continues the development of applications on mobile devices. Presents the principles, techniques, and tools for developing mobile applications. Differences between desktop applications and mobile applications are discussed.
- SDEV 4840: Software Engineering Environments: This course provides students with a comprehensive understanding of the tools, processes, and techniques used in developing and maintaining software in various environments. Students will gain practical knowledge and skills to effectively manage software projects and collaborate with teams in an efficient and productive manner.

Assessment Plan

Students will learn how to design, code, test, and maintain high quality software of their own through hands-on activities in the classroom and through experiential learning opportunities with industry partners and local businesses. Students will use these experiences to learn how to solve real-world business problems. The courses in the software development degree will cover all aspects of front-end development from an understanding of underlying software systems to effective user interfaces and ethics of computing and software development. Courses will include group projects and peer feedback to foster effective teamwork and to support demonstration of effective verbal and non-verbal communication. The grading scale and grading policies used in these courses are as follows:

A: 90-100
B: 80-89
C: 70-79
D: 60-69
F: Below 60

Assignments and exams will be graded on a 100-point scale. Participation and attendance will also be considered when determining the final grade. All assignments must be completed and submitted on time to receive full credit. Late submissions will be subject to a penalty of up to 10 points deducted from the assignment grade. Make-up exams will only be permitted in the event of an excused absence. Cheating and plagiarism will not be tolerated and will result in a zero for the assignment.

Degree Program Evaluation

The program will be evaluated using both internal and external assessments. The internal assessments be done using a tiered approach including:

- Student course evaluations.
- An exit survey of course completers.
- An employer / internship assessment.
- Consistent curriculum assessment to ensure that content is following the most recent trends and best practices.

The Higher Learning Commission accreditation program will serve as the outside assessment.

Substantive Change Determination

We completed the Higher Learning Commission's (HLC's) Certificate Program Screening Form. Based on the information provided, the requested certificate program listed below does not require individual approval from HLC because at least 50% of the program is made up of existing courses or the program is a subset of an existing degree program. HLC accepts this degree as one of your institution's academic programs. The program will be added to HLC's records of the academic programs considered as part of your institution's accreditation.

New Resources Required

The Applied Software Development Program will leverage some existing courses in the Computer Science Department to fulfill course requirements. A Curriculum Committee with members from both EECS and the SoC meets weekly to discuss course utilization (optimization) and any reorganization or revision to existing EECS courses to ensure smooth articulation for Software Development students as well as support increased enrollment in courses currently underutilized or currently not taught (such as Software Engineering). Additionally, the Curriculum Committee will determine the best system to support both current CS students as well as incoming Software Development students in existing CS courses, such as the creation of additional sections for SDEV students. The School of Computing, in partnership with EECS, has developed the ten new courses described above for the Applied Software Development Program.

The B.S. in ASD does not require significant additional resources to be developed and implemented. Students in the program will be advised by staff in the Advising Center for Educational Success (ACES) and the courses will be taught by SoC hires or current faculty in EECS. The program is anticipated to be self-supporting through tuition dollars within 5 years of launching. Additional lecturers may be needed in the future, but we anticipate these positions being filled through strategic hires in the School of Computing.

Partnerships with industry from Wyoming and beyond as well as with entities across campus will also support the sustainability of the program. Internships with industry and interdisciplinary experiential learning courses will improve school-to-work pipelines for Wyoming students and business' as well as ensure that graduates from this program have up-to-date applied knowledge and skills.

Marketing for the new program will be done through the use of dedicated funds from the Wyoming Innovation Partnership and in collaboration with participating Wyoming Community Colleges.

Preliminary budget, including potential funding sources, projected expenses and revenues, and potential faculty, academic professionals, lecturers, professors of practice, and staff:

Total projected additional expenses = $202,020

- 2 faculty/lecturer positions in Applied Software Development ($70,000 + fringe = $101,010. 2 positions = $202,020), one or both of these positions may be covered by strategic hires in the School of Computing.
- Administrative support will be covered by existing SoC personnel and other costs such as travel will be mainly covered through WIP or other existing funds.

Total projected additional revenues due to added course requirements for the Applied Software Development BS = $123,750

- Increased tuition generation per year
- Per resident student in program at $160/undergraduate credit X 30 credits = $4,800
- Per non-resident students in program at $665/undergraduate credit X 30 credits = $19,950
- Estimate: 5 resident students and 5 non-resident each year = $123,750 additional tuition

We anticipate enrollment will begin with 5-10 students who will articulate from Sheridan College. Central, Western, and Northwest are in the first stages of launching 2+2 degree, so we anticipate another 5-10 students from each of these institutions by fall 2025, increasing the tuition generated.

Executive Summary of Demand Statistics

A market analysis indicates strong growth for computer and information technology occupations. The U.S. Bureau of Labor Statistics indicates:

> *Overall employment in computer and information technology occupations is projected to grow 15 percent from 2021 to 2031, much faster than the average for all occupations;*

this increase is expected to result in about 682,800 new jobs over the decade. In addition to new jobs from growth, opportunities arise from the need to replace workers who leave their occupations permanently. About 418,500 openings each year, on average, are projected to come from growth and replacement needs.

A recent Wyoming Workforce Services report (see Table 1) has similar projections for Wyoming between 2020 and 2030, including:

- a 20.6% growth, or 68 new positions per year, in Computer and Mathematical occupations;
- Almost all of these occupations require a bachelor's degree;
- A 35.4% growth, or 15 new positions per year, in Software Development.

The median annual wage for this group was $97,430 in May 2021, which was higher than the median annual wage for all occupations of $45,760.

In addition, in Fall 2021, EAB prepared an evaluation of employer demand for graduates of a proposed bachelor's level computing program for both regional and national markets. Summary results from this study are the following:

- **Historical and projected employer demand trends suggest a high need for bachelor's-level computing graduates.**

  Within the last 12 months, regional and national employers posted a high number of job postings for relevant professionals (i.e., 48,482 and 779,920 job postings, respectively). Further, between August 2018 and July 2021, regional and national employer demand growth for bachelor's-level computing professionals outpaced that of all bachelor's-level professionals (i.e., 3.01 percent vs 1.56 percent and 2.54 percent vs 1.26 percent, respectively). These trends suggest a growing market for bachelor's-level computing professionals. Additionally, employment in the top relevant regional and national occupations is projected to increase faster than average in the next 10 years. This suggests employment opportunities for program graduates will likely increase in the coming years.

- **Relevant degree completion trends indicate strong student demand for bachelor's-level computing programs.**

  Between the 2014-2015 and 2018-2019 academic years, regional and national completions increased on average (i.e., 42.91 percent average annual growth and 41.34 percent, respectively). While student demand is rapidly increasing at around the same rate in both regions, competition is also growing.

- **Competitive landscape trends suggest a small regional and concentrated national competitive landscapes.**

  Between the 2014-2015 and 2018-2019 academic years, the number of regional and national institutions reporting completions increased on average (6.25 percent average annual growth and 31.32 percent, respectively). Regionally, during the 2018-2019 academic year, two of the

top five institutions held a combined 86.08 percent of the market (i.e., Colorado School of Mines and Brigham Young University). These well-established competitors may challenge a new program entering the market. Nationally, between the 2014-2015 and the 2018-2019 academic years, all top 10 reporting institutions increased the number of completions they report, indicating growth among top programs. Further, top programs reported far more completions than the 2018-2019 median number of completions (i.e., 18-90 completions compared to 2 median completions). This indicates program growth may be concentrated among top programs. Although student interest is rapidly increasing, a concentrated market could challenge a new program at the University of Wyoming.

Figure 1 illustrates the projected growth in regional computing related jobs. This illustrates the rapid projected growth for Software Developer jobs.

Figure 1 (from 2021 EAB report)
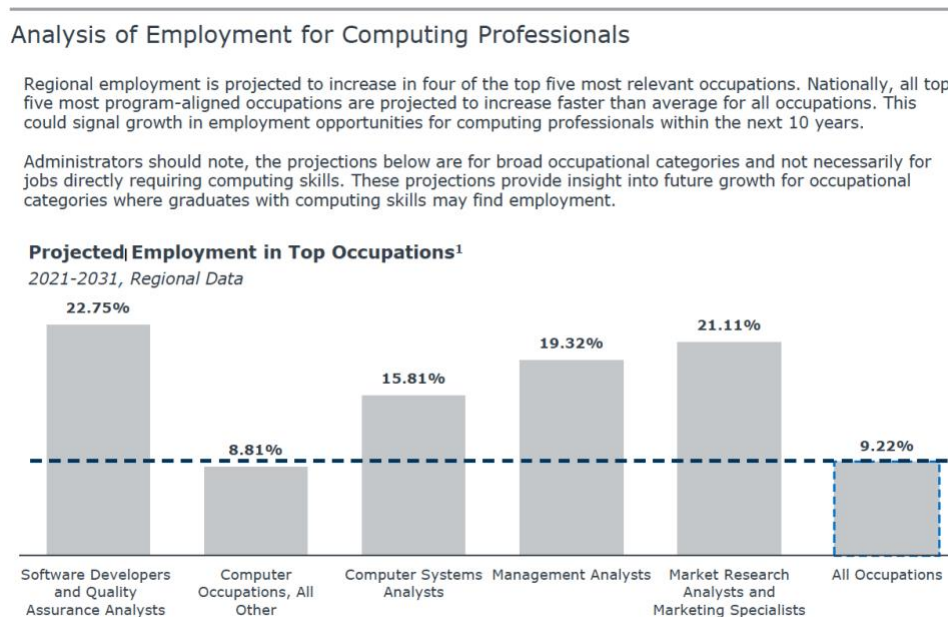
The B.S. in Applied Software Development will not only prepare students for existing jobs in the Software Development field but will provide UW graduates with a broad skillset in applied computing which will help with the state level goal of diversifying the Wyoming economy. Graduates of this program may be able to work remotely in well-paying jobs while staying in their hometowns or will have learned skills that allow them to become entrepreneurs and small business owners. The B.S. in Applied Software Development is one avenue to retain young talent in the Wyoming education system and workforce.

This form is to be used with all new degree/certificate proposals as outlined in the process on the Academic Affairs website at https://www.uwyo.edu/acadaffairs/degrees. Departments shall use this form to provide documentation of collaboration and support for any courses and/or resources that will be contributing to the new degree/certificate that are not within the home department.

Date:

Name of Proposal:

Department:

College:

The above-named degree/certificate proposal has been reviewed by the following departments/colleges and all appropriate courses and resources have been discussed prior to proposal submission:

_____   _____
Department Head   Signature

_____   _____
Department Head   Signature

_____   _____
Dean   Signature

_____   _____
Dean   Signature

Submitted on: _____(date)

By: _____

1

This template is intended to be used as a basic guide to generate a projection of additional expenses and revenues at the University.

Cells in orange are variables which can be updated as needed. Please enter information in numerical tab order.

Cells in gray calculate automatically

Row		Fiscal Year			
		1	2	3	4
	Revenue				
1	Cummulative Total NEW headcount enrollment	0	0	10	22
2	NEW Resident enrollment (# of new students entering the program each year)			8	10
3	NEW Non Resident Enrollment (# of new students entering the program each year)			2	2
4	*Resident (credit hours delivered outside of NEW Program)*	0	0	240	540
5	Resident (credit hours delivered in NEW Program)	0	0	0	0
6	*Non Resident (credit hours delivered outside of NEW Program)*	0	0	60	120
7	Non Resident (credit hours delivered in NEW Program)	0	0	0	0
8	**Total Resident credit hours generated****	0	0	240	540
9	**Total Non Resident credit hours generated****	0	0	60	120
10					
11	Per Credit Tuition*				
12	Resident (Posted Tuition Rate)			$166	$173
13	Nonresident (Posted Tuition Rate)			$345	$359
14	Prior Year's Non Resident Discount Rate (updated annually by the budget office)	30%	30%	30%	30%
15	Estimated Actual Non Resident Per Credit Tuition	$0	$0	$242	$251
16	*Total Resident Tuition generated outside of NEW Program*	$0	$0	$39,840	$93,226
17	Total Resident Tuition in NEW Program	$0	$0	$0	$0
18	*Total Non Resident Tuition outside of NEW Program*	$0	$0	$14,490	$30,139
19	Total Non Resident Tuition in NEW Program	$0	$0	$0	$0
20					
21	**Total Tuition from NEW Enrollment**	$0	$0	$54,330	$123,365

		FY1	FY2	FY3	FY4
22					
23	**Fees**				
	Program Per Credit Hour	$0	$0	$0	$0
24					
25	Program Fee Revenue	$0	$0	$0	$0
26	*Advising Fee Per Credit Hour*			$8.00	$8.00
27	*Advising Fee Revenue*	$0	$0	$2,400	$5,280
28	*Mandatory Fee (Per Full Time Student)*			$855.00	$855.00
29	*Mandatory Fee Revenue*	$0	$0	$8,550	$18,810
30					
31	**Total New Revenue Generated Within New Program**	$0	$0	$0	$0
32	***Total New Revenue Generated Outside of the Program***	$0	$0	$65,280	$147,455
33	**Total New Revenue Generated**	$0	$0	$65,280	$147,455
34					
35	**New Program Expense Assumptions**				
36	Compensation and benefits				
37	Faculty	$0	$0	$101,662	$203,324
38	Other administrative staff				
39	Graduate Assistants				
41	Supplies				
42	Travel				
43	Marketing				
44	Capital expense	0	0	0	0
45	Other (specify)	0	0	0	0
46					
47	**Projected Financial Results for New Program**	FY1	FY2	FY3	FY4
48	Total Expenses	$0	$0	$101,662	$203,324
49	Total New Revenues Remaining with Program	$0	$0	$65,280	$147,455
50	**New Program's Total Surplus or Deficit**	$0	$0	-$36,382	-$55,869

51 Operating margin (surplus or deficit / revenues)   No Value   No Value   -0.56   -0.38

* UW's Board of Trustees' current working policy is to raise tuition by 4% each year
Last updated 2/27/19

Enter Course of Study, Credit Hours, indicate if the course is new and if the course will be offered throug

Freshman Fall	15	NEW Course	Distance Option
Course	3	☐ Yes	☐ Yes
Q	3	☐ Yes	☐ Yes
USP C1	3	☐ Yes	☐ Yes
USP FYS	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes

Freshman Spring	15		
USP PN	3	☐ Yes	☐ Yes
USP H	3	☐ Yes	☐ Yes
USP V	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes

Sophmore Fall	16		
USP PN	3	☐ Yes	☐ Yes
USP C2	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes
Course	4	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes

Sophmore Spring	15		
USP H	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes
Course	3	☐ Yes	☐ Yes

Junior Fall	16		
Science class USP PN	4	☐ Yes	☑ Yes
COSC 1030 Computer Scier	4	☐ Yes	☑ Yes
COMP 2000 Computing & S	2	☐ Yes	☑ Yes
SDEV 3000 Foundations of	3	☑ Yes	☑ Yes
Computing Elective	3	☐ Yes	☑ Yes

Junior Spring	16		
COSC/SDEV 2030 Data Stru	4	☐ Yes	☑ Yes
USP H	3	☐ Yes	☑ Yes
SDEV 3011 Indroduction to	3	☑ Yes	☑ Yes
SDEV 3100 User Design Exp	3	☑ Yes	☑ Yes
Computing Elective	3	☐ Yes	☑ Yes

Senior Fall	15		
COSC/SDEV 3765 Compute	3	☐ Yes	☑ Yes
SDEV 3020 Applied Algorith	3	☑ Yes	☑ Yes

SDEV 3500 Performance &	3	☑ Yes	☑ Yes
SDEV 4730 Mobile Applicat	3	☑ Yes	☑ Yes
Computing Elective	3	☐ Yes	☑ Yes
Senior Spring	14		
SDEV 4000 Advancing Prog	3	☑ Yes	☑ Yes
Computing Elective	3	☐ Yes	☑ Yes
SDEV 4840 Software Engine	3	☑ Yes	☑ Yes
Statistics	1	☐ **Yes**	☑ **Yes**
COMP 4000 Practicum	4	☐ Yes	☑ Yes

Total Hours 120

	New Course	hours	1		2		3		4	
			Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Freshman Fall										
Course	FALSE	3	0		0		0		0	
Q	FALSE	3	0		0		0		0	
USP C1	FALSE	3	0		0		0		0	
USP FYS	FALSE	3	0		0		0		0	
Course	FALSE	3	0		0		0		0	
Freshman Spring										
USP PN	FALSE	3		0		0		0		0
USP H	FALSE	3		0		0		0		0
USP V	FALSE	3		0		0		0		0
Course	FALSE	3		0		0		0		0
Course	FALSE	3		0		0		0		0
		30	0	0	0	0	0	0	0	0
Sophmore Fall					0		0		0	
USP PN	FALSE	3			0		0		0	
USP C2	FALSE	3			0		0		0	
Course	FALSE	3			0		0		0	
Course	FALSE	3			0		0		0	
Course	FALSE	3			0		0		0	
Sophmore Spring						0		0		0
USP H	FALSE	3				0		0		0
Course	FALSE	3				0		0		0
Course	FALSE	3				0		0		0
Course	FALSE	3				0		0		0
Course	FALSE	3				0		0		0
		30	0	0	0	0	0	0	0	0
Junior Fall										
Science class USP PN	FALSE	4					0		0	
COSC 1030 Computer S	FALSE	4					0		0	
COMP 2000 Computing	FALSE	2					0		0	
SDEV 3000 Foundations	TRUE	3					3		3	
Computing Elective	FALSE	3					0		0	
Junior Spring								0		0
COSC/SDEV 2030 Data S	FALSE	4						0		0
USP H	FALSE	3						0		0
SDEV 3011 Indroduction	TRUE	3						3		3
SDEV 3100 User Design	TRUE	3						3		3
Computing Elective	FALSE	3						0		0

		32	0	0	0	0	3	6	3	6
Senior Fall									0	
COSC/SDEV 3765 Comp	FALSE	3							0	
SDEV 3020 Applied Algo	TRUE	3							3	
SDEV 3500 Performance	TRUE	3							3	
SDEV 4730 Mobile Appl	TRUE	3							3	
Computing Elective	FALSE	3							0	
Senior Spring										0
SDEV 4000 Advancing P	TRUE	3								3
Computing Elective	FALSE	3								0
SDEV 4840 Software En	TRUE	3								3
Statistics	FALSE	1								0
		25	0	0	0	0	0	0	9	6
Total Hours		117	0	0	0	0	3	6	12	12

Teaching load	fall	spring								
faculty line 1	9	6	0	0	0	0	1	1	1	1
faculty line 2	9	6	0	0	0	0	0	0	1	1
faculty line 3	9	6	0	0	0	0	0	0	0	0
faculty line 4	9	6	0	0	0	0	0	0	0	0

		0.41				
Compensation	Salary	Benefits	1	2	3	4
faculty line 1	$72,152	$29,510	0	$0	$101,662	$101,662
faculty line 2	$72,152	$29,510	0	$0	$0	$101,662
faculty line 3		$0	0	$0	$0	$0
faculty line 4		$0	0	$0	$0	$0
			0	$0	$101,662	$203,324

For more specific salary and benefit data please contact the Budget Office at 766-9028

NAME OF COMMITTEE
COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Native American Faculty and Student Discussion (Carman)

☒ OPEN SESSION
☐ CLOSED 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:
Since July 2023, the AA/SA committee has allocated time during committee meetings to address and dialogue about matters related to the improvement of recruitment and retention of tribal students. Family & Consumer Sciences Department Head and Associate Professor Jill Keith will provide an overview of her research on the Wind River Reservation, summarize other UW research being conducted in collaboration with Wind River Reservation tribes, and discuss additional opportunities for research that is relevant to Native communities in Wyoming.

PRIOR RELATED COMMITTEE DISCUSSIONS/ACTIONS:
The Academic and Student Affairs Committee has discussed Native American Recruitment and Retention at the September and November 2023 meetings, as well as the January 2024 meeting.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Requested topic for discussion.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

PROPOSED MOTION:

NAME OF COMMITTEE
COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: Annual Student Success Data Metrics (Chestnut/Courtney)

☒ OPEN SESSION
☐ CLOSED 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 Board will examine the provided materials, encompassing a detailed analysis of retention data for both First-Time and Full-Time students, alongside a comprehensive overview of demographic trends. Additionally, Transfer Students and their unique demographic characteristics will be reviewed. Furthermore, we will conduct a high-level review of Saddle-Up.

PRIOR RELATED COMMITTEE DISCUSSIONS/ACTIONS:
Annual discussion with the Academic and Student Affairs Committee.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Annual discussion item.

ACTION REQUIRED AT THIS COMMITTEE MEETING:

PROPOSED MOTION:

Spring 2024

Student Retention Data

Outline

Topic Overview

- **First-time, Full-time Fall to Spring and Fall to Fall Student Retention and Demographics**

- **Transfer First-time, Full-time, Fall to Spring and Fall to Fall Student Retention and Demographics**

- **Saddle-Up Retention**

- **Cowboy Coaching Retention**

- **Looking Forward**

First-time, Full-time Student Retention:

Comparison
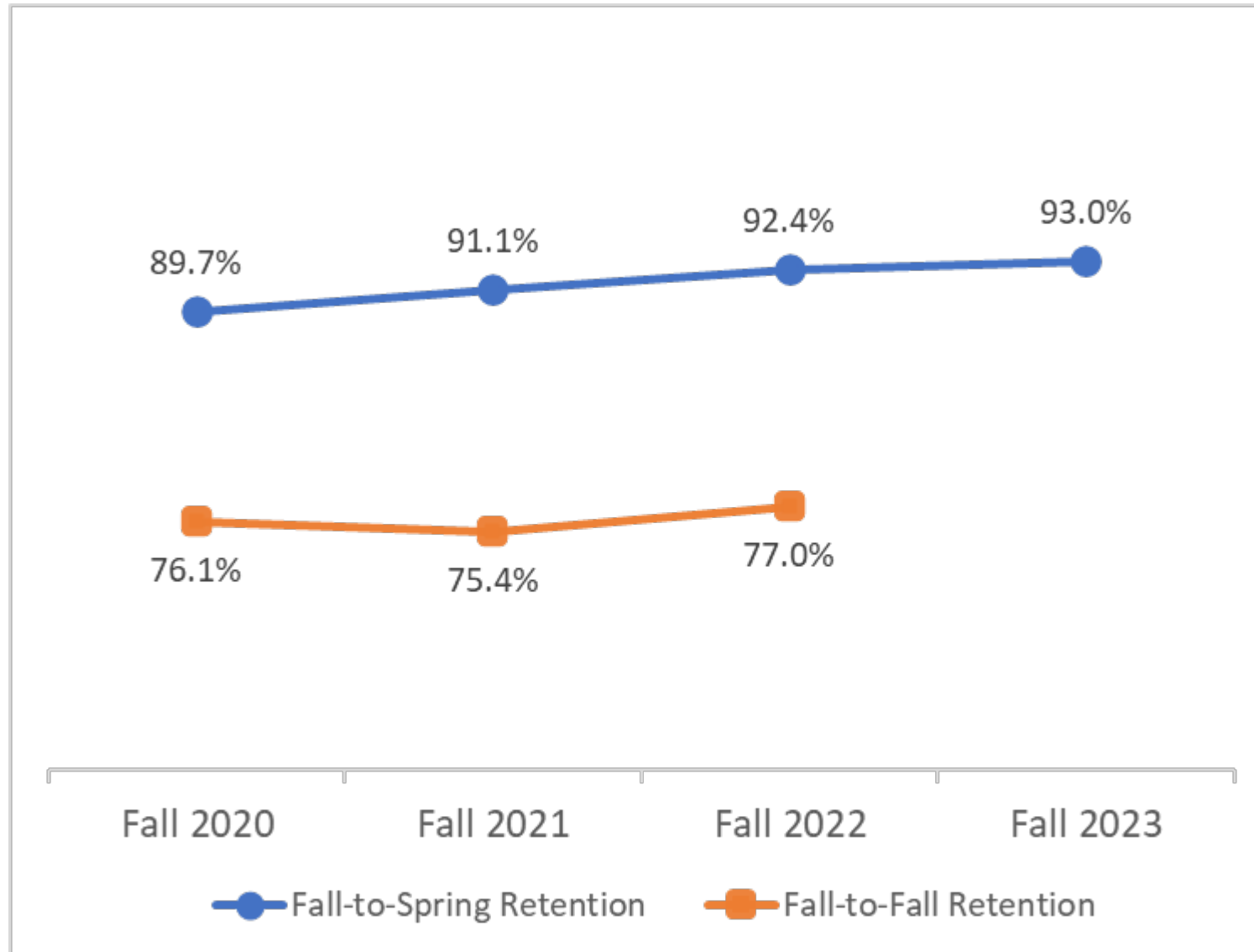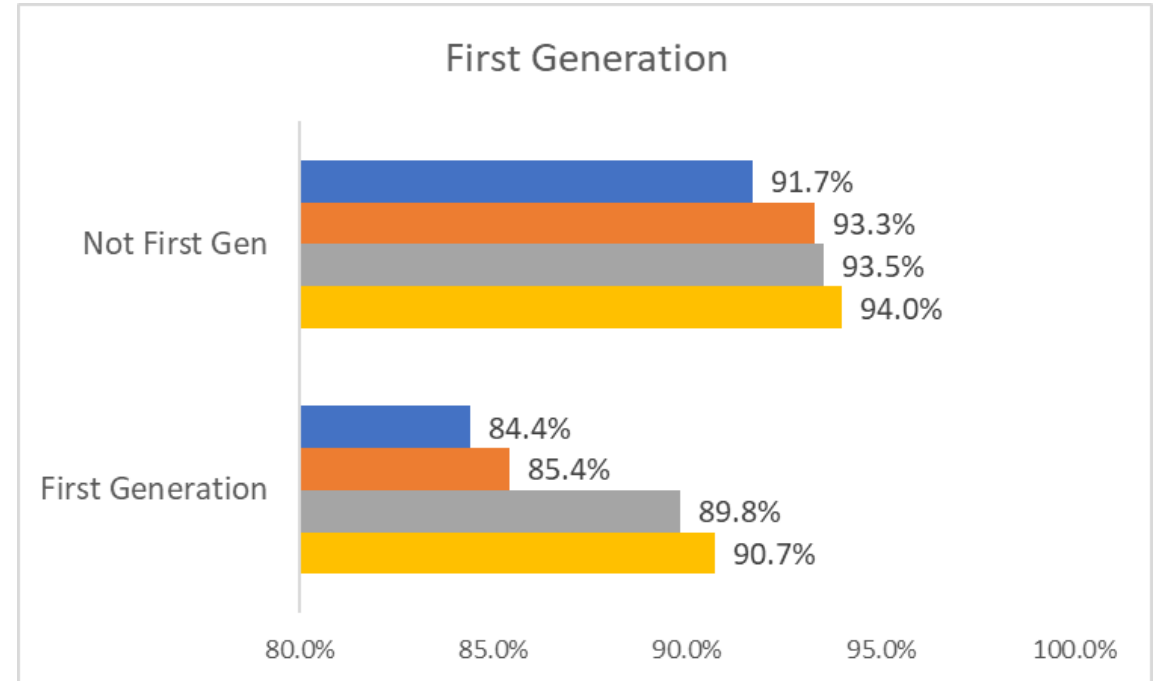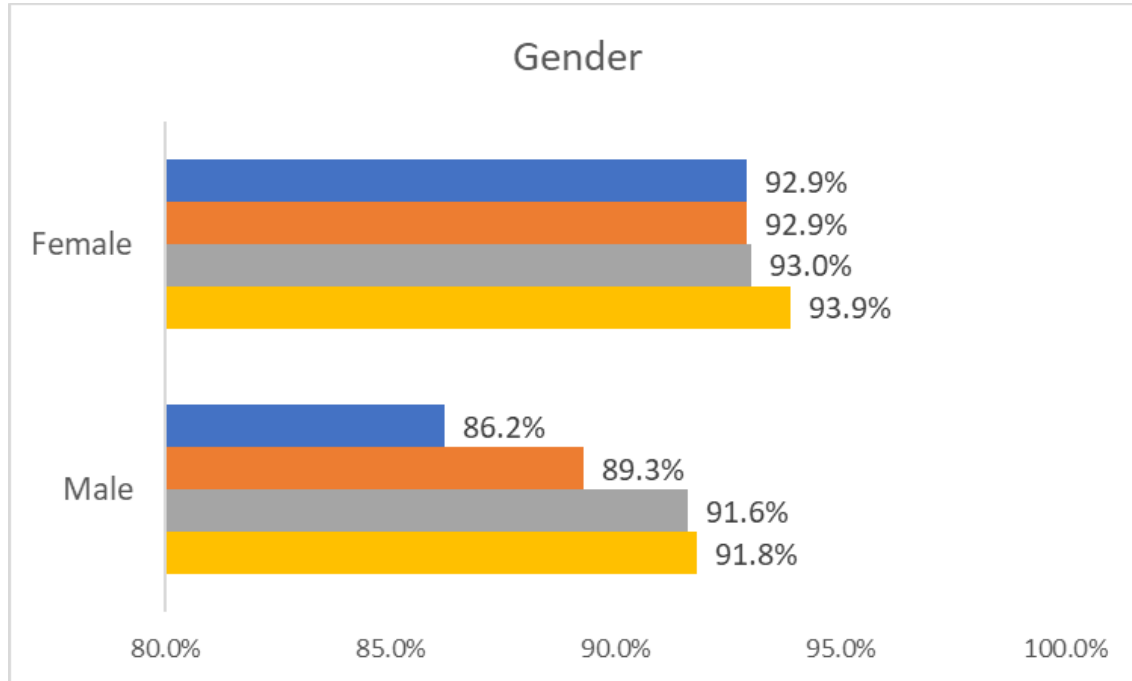
Fall-to-Spring Retention: 89.7% (Fall 2020), 91.1% (Fall 2021), 92.4% (Fall 2022), 93.0% (Fall 2023)

Fall-to-Fall Retention: 76.1% (Fall 2020), 75.4% (Fall 2021), 77.0% (Fall 2022)

First-time, Full-time Fall to Spring Retention

Gender

Female	92.9% / 92.9% / 93.0% / 93.9%
Male	86.2% / 89.3% / 91.6% / 91.8%

First Generation

Not First Gen	91.7% / 93.3% / 93.5% / 94.0%
First Generation	84.4% / 85.4% / 89.8% / 90.7%

■ Fall 2020-->Spring 2021   ■ Fall 2021-->Spring 2022

■ Fall 2022--> Spring 2023   ■ Fall 2023--> Spring 2024

THE WORLD NEEDS MORE
INSPIRED CREATIVITY.

41

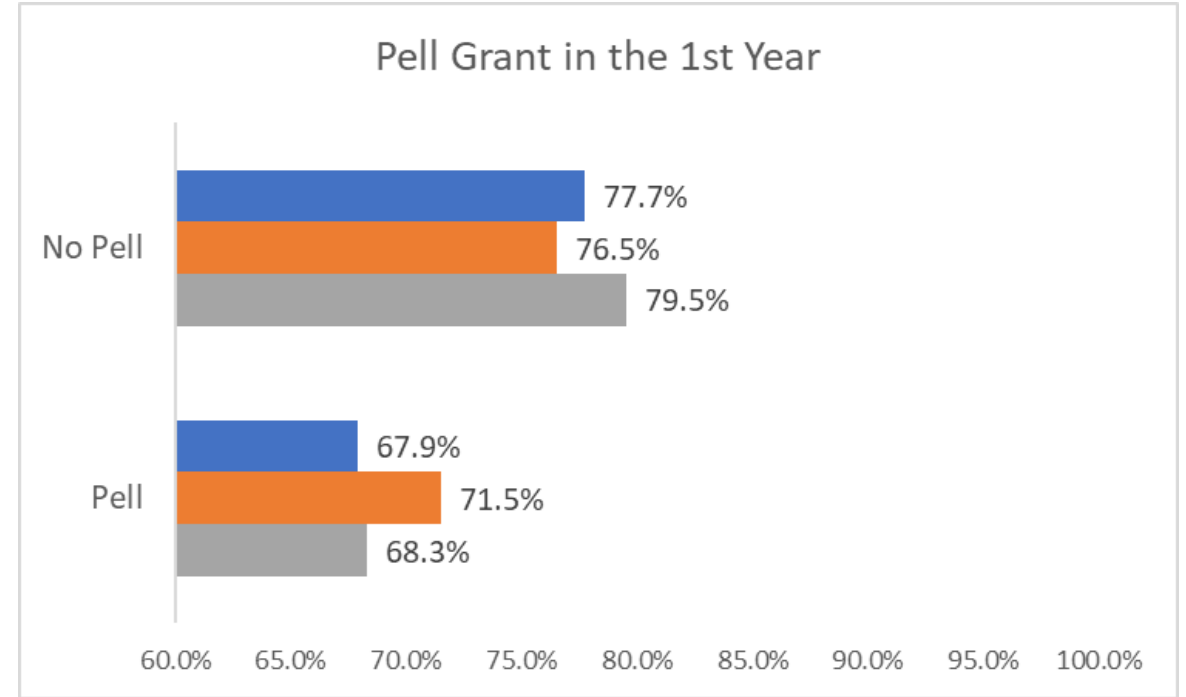# First-time, Full-time Fall to Spring Retention

	Fall 2020 --> Spring 2021	Fall 2023 --> Spring 2024	Difference	
Males	86.2%	91.8%	5.6%	↑
Females	92.9%	93.9%	1.0%	↑
First Generation	84.4%	90.7%	6.3%	↑
Not First Gen	91.7%	94.0%	2.3%	↑
Minority	86.1%	95.4%	9.3%	↑
White	90.3%	92.7%	2.4%	↑
Pell 1st Year	83.8%	90.8%	7.0%	↑
No Pell 1st Year	90.8%	93.6%	2.8%	↑
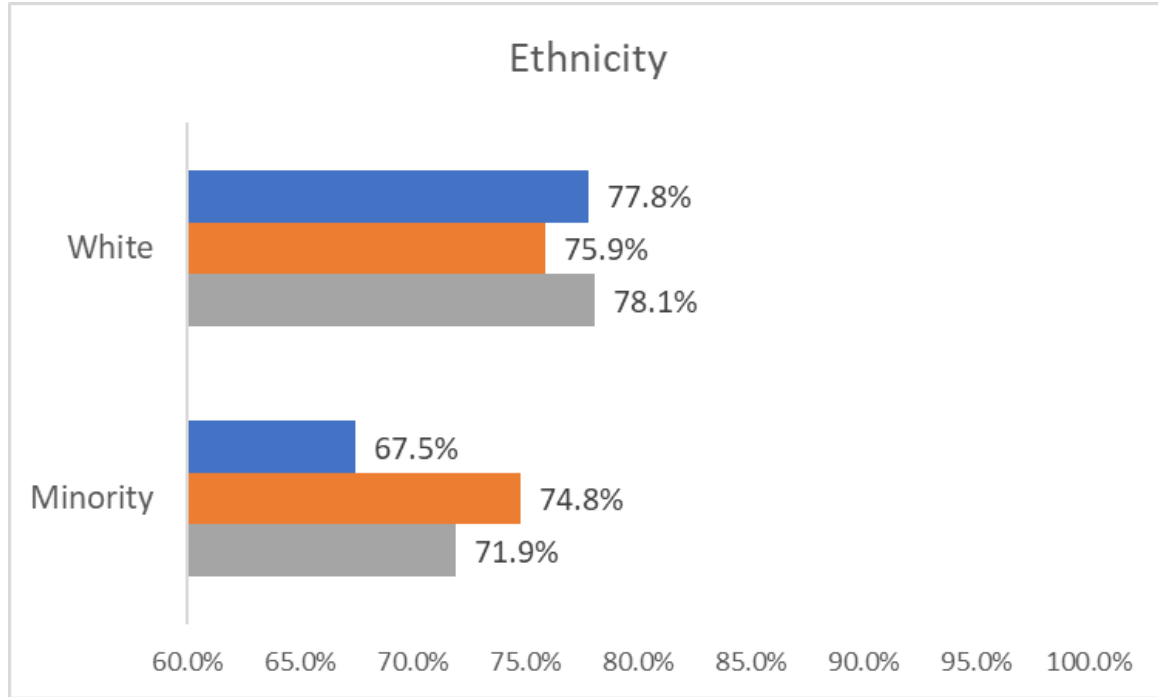
UNIVERSITY OF WYOMING | Student Success and Graduation

First-time, Full-time Fall to Fall Retention

Ethnicity

White
- Fall 2020 → Fall 2021: 77.8%
- Fall 2021 → Fall 2022: 75.9%
- Fall 2022 → Fall 2023: 78.1%

Minority
- Fall 2020 → Fall 2021: 67.5%
- Fall 2021 → Fall 2022: 74.8%
- Fall 2022 → Fall 2023: 71.9%

Pell Grant in the 1st Year

No Pell
- Fall 2020 → Fall 2021: 77.7%
- Fall 2021 → Fall 2022: 76.5%
- Fall 2022 → Fall 2023: 79.5%

Pell
- Fall 2020 → Fall 2021: 67.9%
- Fall 2021 → Fall 2022: 71.5%
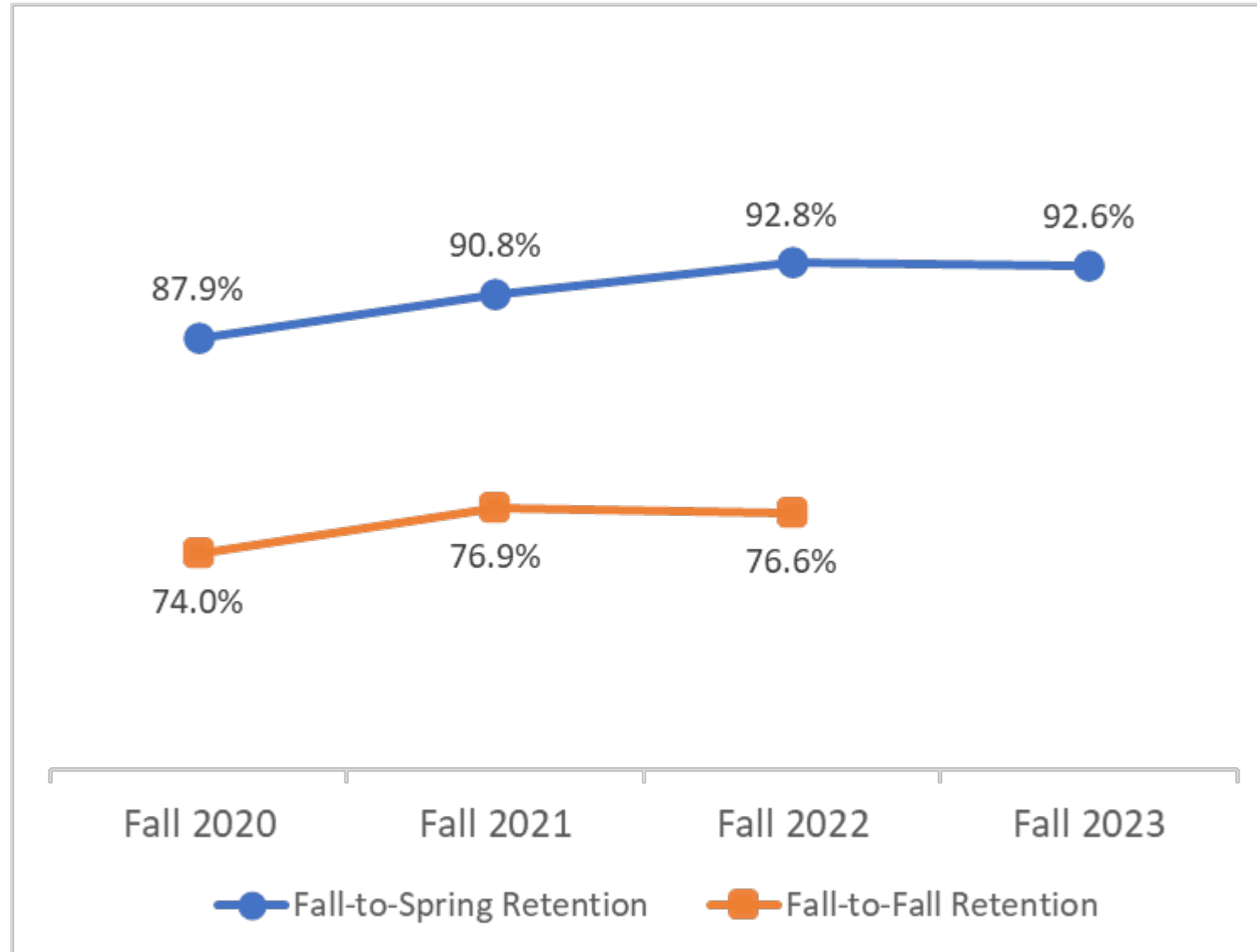- Fall 2022 → Fall 2023: 68.3%

Legend: ■ Fall 2020--> Fall 2021   ■ Fall 2021--> Fall 2022   ■ Fall 2022--> Fall 2023
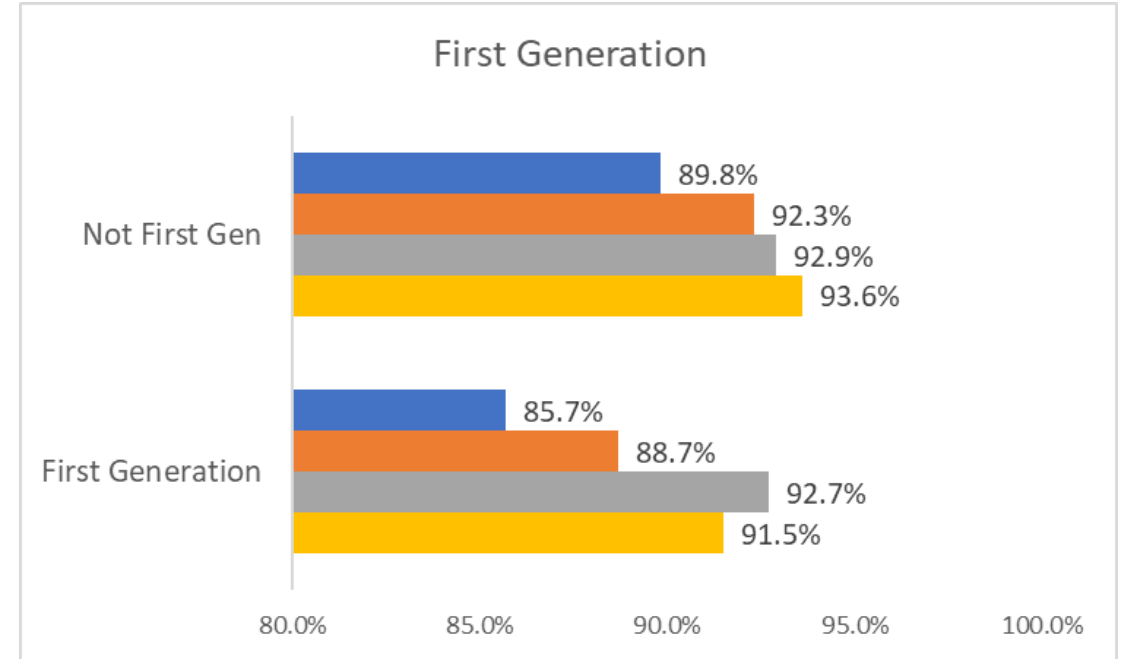
THE WORLD NEEDS MORE INSPIRED CREATIVITY.

43

First-time, Full-time Fall to Fall Retention

	Fall 2020 --> Fall 2021	Fall 2022 --> Fall 2023	Difference	
Males	71.7%	73.1%	1.4%	↑
Females	80.1%	80.3%	0.2%	↑
First Generation	66.4%	71.3%	4.9%	↑
Not First Gen	79.8%	79.3%	-0.5%	↓
Minority	67.5%	71.9%	4.4%	↑
White	77.8%	78.1%	0.3%	↑
Pell 1st Year	67.9%	68.3%	0.4%	↑
No Pell 1st Year	77.7%	79.5%	1.8%	↑

UNIVERSITY OF WYOMING | Student Success and Graduation

44

New Full-time, Transfer Retention
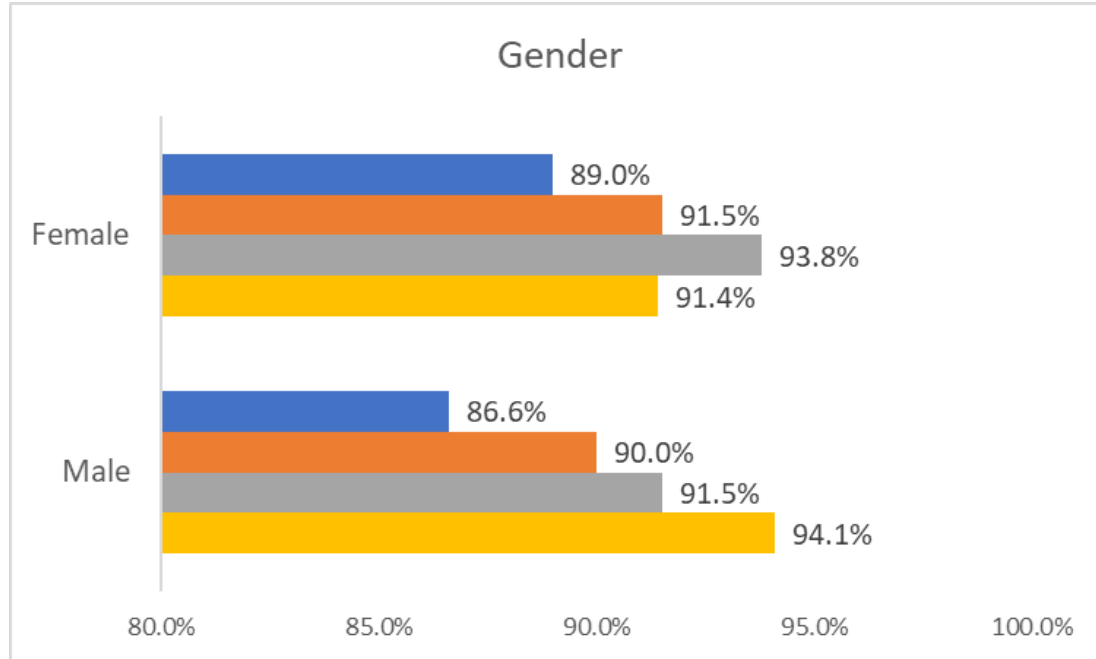
Comparison

Full-time, Transfer Fall to Spring Retention

Gender

Female
- 89.0%
- 91.5%
- 93.8%
- 91.4%

Male
- 86.6%
- 90.0%
- 91.5%
- 94.1%

First Generation

Not First Gen
- 89.8%
- 92.3%
- 92.9%
- 93.6%

First Generation
- 85.7%
- 88.7%
- 92.7%
- 91.5%

■ Fall 2020-->Spring 2021   ■ Fall 2021-->Spring 2022
■ Fall 2022--> Spring 2023   ■ Fall 2023--> Spring 2024
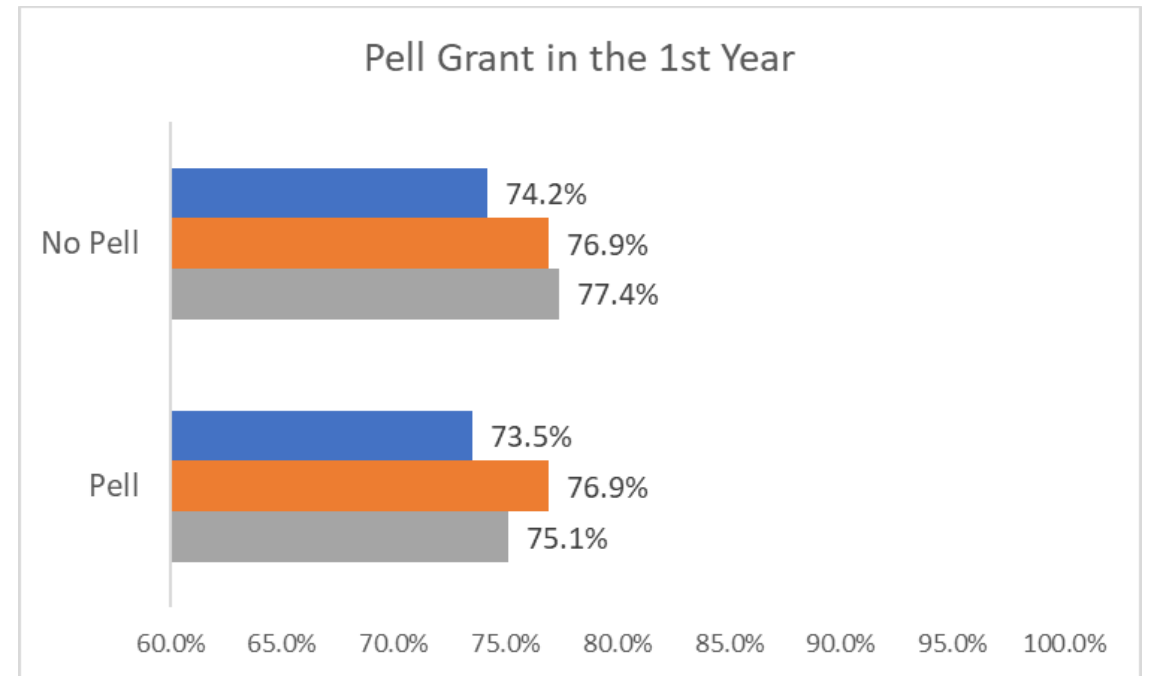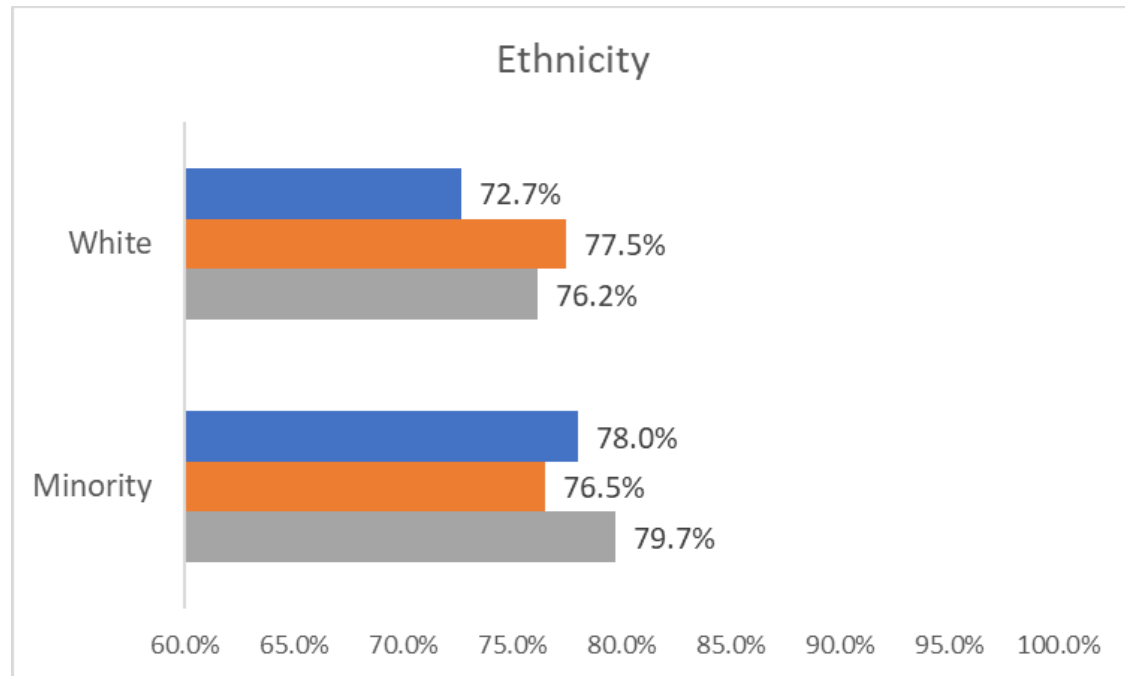
THE WORLD NEEDS MORE
INSPIRED CREATIVITY.

Full-time, Transfer Fall to Spring Retention

	Fall 2020--> Spring 2021	Fall 2023--> Spring 2024	Difference	
Male	86.6%	94.1%	7.5%	↑
Female	89.0%	91.4%	2.4%	↑
First Generation	85.7%	91.5%	5.8%	↑
Not First Gen	89.8%	93.6%	3.8%	↑
Minority	88.0%	94.8%	6.8%	↑
White	88.0%	92.1%	4.1%	↑
Pell	88.8%	91.4%	2.6%	↑
No Pell	87.6%	93.3%	5.7%	↑

UNIVERSITY OF WYOMING | Student Success and Graduation

Full-time, Transfer Fall to Fall Retention

Ethnicity

White	72.7% (Fall 2020-->Fall 2021)
	77.5% (Fall 2021-->Fall 2022)
	76.2% (Fall 2022-->Fall 2023)
Minority	78.0% (Fall 2020-->Fall 2021)
	76.5% (Fall 2021-->Fall 2022)
	79.7% (Fall 2022-->Fall 2023)

Pell Grant in the 1st Year

No Pell	74.2% (Fall 2020-->Fall 2021)
	76.9% (Fall 2021-->Fall 2022)
	77.4% (Fall 2022-->Fall 2023)
Pell	73.5% (Fall 2020-->Fall 2021)
	76.9% (Fall 2021-->Fall 2022)
	75.1% (Fall 2022-->Fall 2023)

Legend: ■ Fall 2020--> Fall 2021 ■ Fall 2021--> Fall 2022 ■ Fall 2022--> Fall 2023
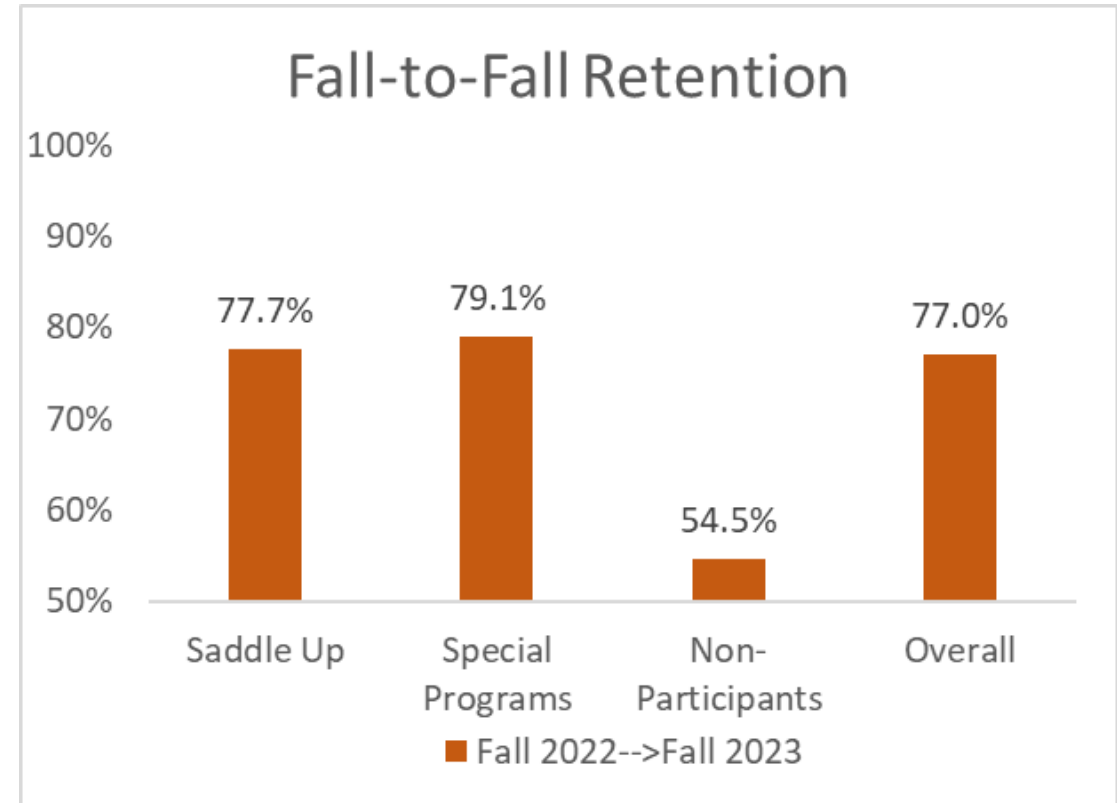
THE WORLD NEEDS MORE INSPIRED CREATIVITY.

48

# Full-time, Transfer Fall to Fall Retention

	Fall 2020--> Fall 2021	Fall 2022--> Fall 2023	Difference	
Males	75.6%	73.6%	-2.0%	↓
Females	72.6%	78.8%	6.2%	↑
First Generation	68.6%	78.0%	9.4%	↑
Not First Gen	78.5%	75.6%	-2.9%	↓
Minority	78.0%	79.7%	1.7%	↑
White	72.7%	76.2%	3.5%	↑
Pell 1st Year	73.5%	75.1%	1.6%	↑
No Pell 1st Year	74.2%	77.4%	3.2%	↑

UNIVERSITY OF WYOMING | Student Success and Graduation

First-time, Full-time Student Retention

	Saddle Up	Special Programs	Non-Participants	Overall
Fall 2022-->Spring 2023	93.1%	90.9%	76.4%	92.4%
Fall 2023-->Spring 2024	92.7%	96.0%	87.1%	93.0%
Fall 2022-->Fall 2023	77.7%	79.1%	54.5%	77.0%

First-time, Full-time Student Retention

THE WORLD NEEDS MORE
INSPIRED CREATIVITY.
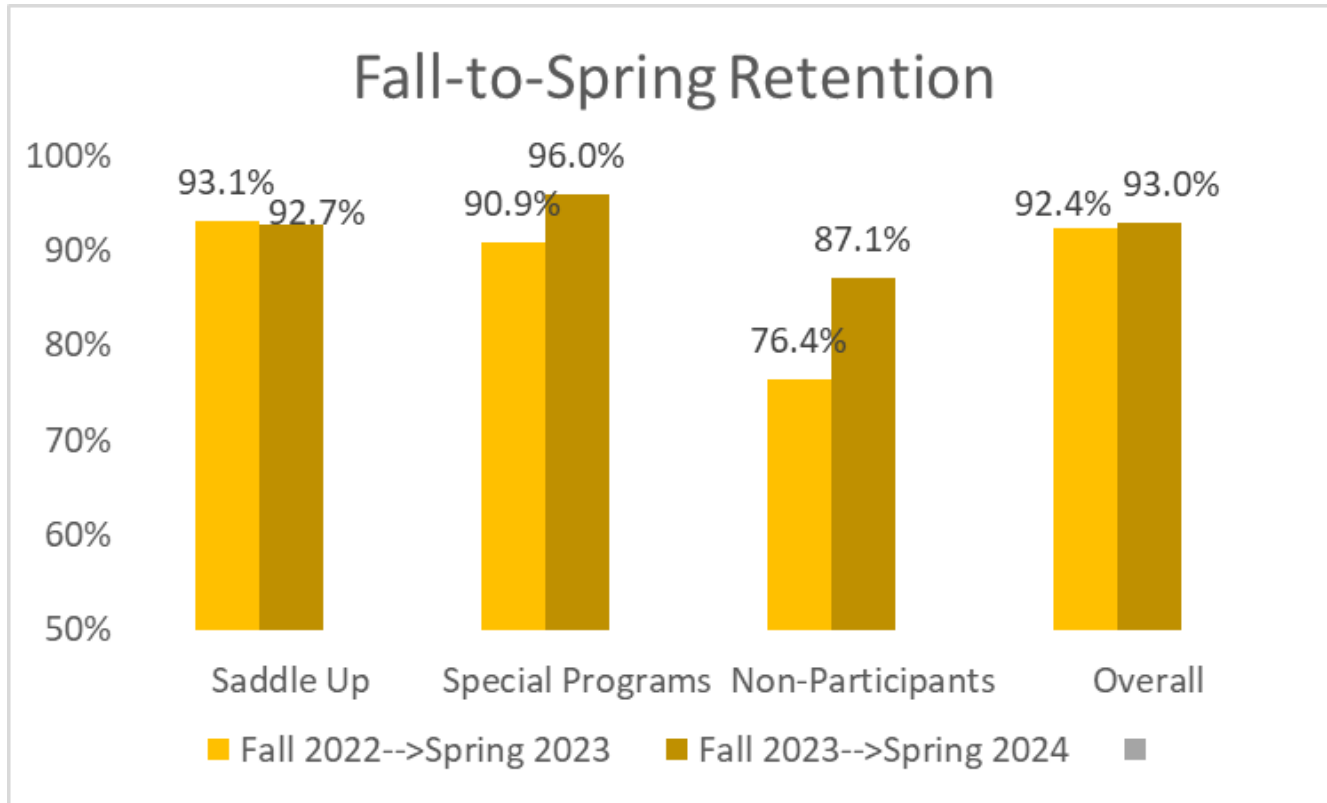
Peer Mentorship

COWBOY COACHING

Peer Mentorship Program

1,260
- Fall 2023 Cowboy Coach appointments.

60
- Students per coach caseload in fall 2023.

89.6%
- Fall 2022 – Fall 2023 retention rate for students who met with a Cowboy Coach at least twice in the time period.

Looking Forward

Transfer:
SS&G Hub hired new employee to focus on transfer, plus six Transfer Cowboy Coaches to help with onboarding and transition from Community College to University.

Minority:
We have already begun planning adjustments to help ensure our retention practices are meeting ever-changing student needs.

Academic Recovery:
SSITT formed a sub-committee to explore institutional practices around academic recovery.

Summer Melt Prevention:
Building relationships with new incoming students from New Students Days and beyond. SS&G will focus on calling all student who have not registered for Fall and over ongoing support to encourage enrollment.