



COLLEGE OF
**ENGINEERING &
APPLIED SCIENCE**

UNIVERSITY OF WYOMING

Presentation to the Budget Committee
of the
Board of Trustees of the University of Wyoming
May 11, 2020

From the 2017-2022 CEAS Strategic Plan

Mission: The College of Engineering and Applied Science serves the citizens of Wyoming through engineering and technology-oriented educational and research programs, yielding graduates and technologies that significantly impact Wyoming's economic growth and diversification. We do this through our commitment to student success, community and industry engagement, and translational interdisciplinary research.

Vision: The College of Engineering and Applied Science will be recognized in Wyoming and internationally as a leader in education, stakeholder engagement, and the application of knowledge to the benefit of our economy and our citizens.

STRATEGIC THEMES

- Establish a premier academic culture
- Foster innovative growth
- Engage in productive economic development
- Become a best-practices organization

CEAS Accomplishments for Fiscal Year 2020

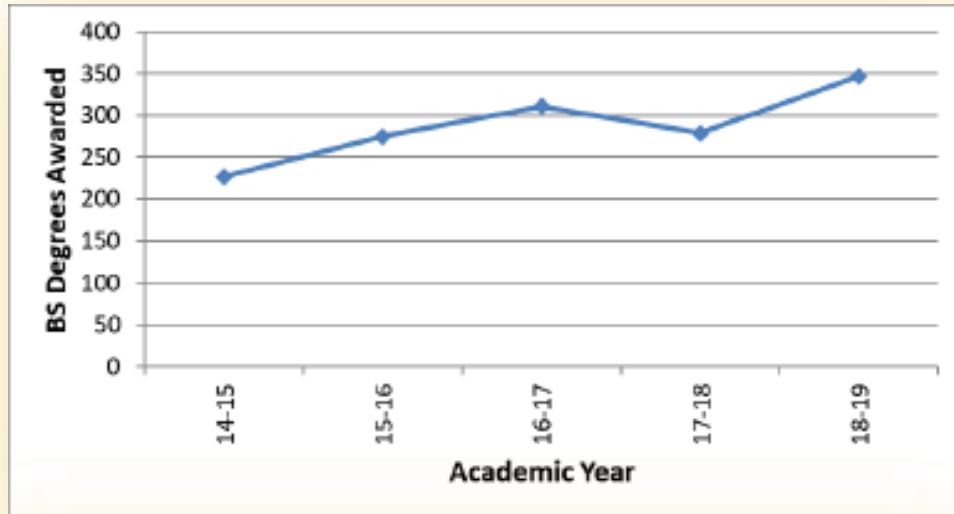
- Launched the Construction Management Program
- Started the Process Control Minor
- Successfully moved to online instruction, including labs, facilitated by ongoing efforts
- Produced the second annual WyoHackathon; plans underway for third annual event
- New cooperative agreement with NSF for the King Air Research Facility
- Successfully accepted first UW cryptocurrency gift from IOHK to support Blockchain and Cryptocurrency Research
- Funded two interdisciplinary research clusters; Materials and Artificial Intelligence
- Completing the remodel of the Susan B. McCormack Student Success Center
- Grand Opening of the Engineering Education and Research Building
- 87% average job placement rate across the college; 31.3% stayed in Wyoming
- Continuation of the Industry graduate fellows matching program
- Continuation of the Undergraduate research matching program
- Additions of Facilities Manager and Internship Coordinator positions

Personnel statistics as of Spring 2020

Faculty	94	
Staff	54	
Academic professionals	29	Researchers & Post docs
Temporary lecturers	18	Varies by semester
Graduate assistants	184	
Total	379	

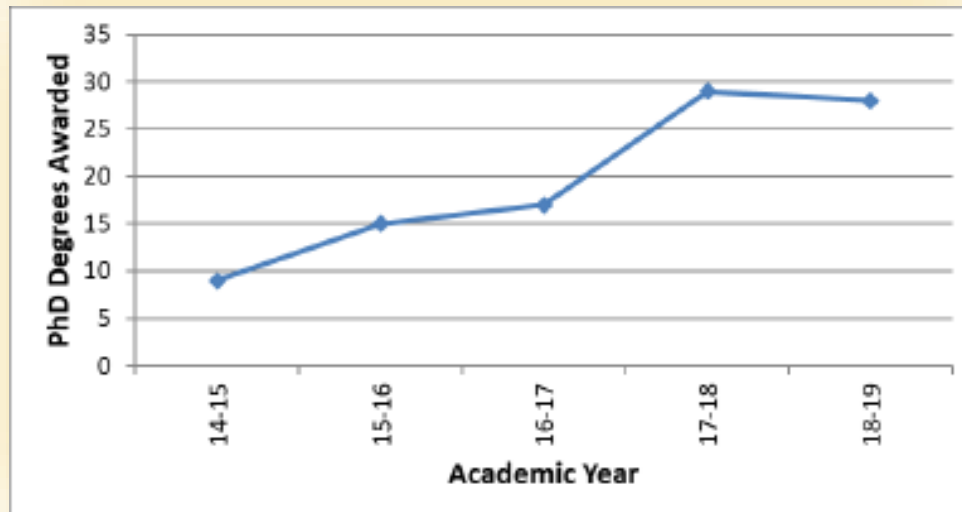
Undergraduate Enrollment	1,588	Fall 2019
Graduate Enrollment	250	Fall 2019

Trends in Degree Production



A **55% increase** in BS degrees awarded over past 5 years

MS degree production relatively flat, averaging about 54 MS degrees/yr over past 5 years



A **210% increase** in PhD degrees awarded over 5 years

Strengths:

- Our Facilities: newly completed EERB, interdisciplinary labs, High Bay, Active Learning classrooms; Student Innovation Center (MakerSpace)
- Nationally Recognized Faculty and Research
- Tier 1 Engineering Initiative
- Strong alumni and industry relationships
- Strong outreach activities across the state and nation
- Interdisciplinary teams conducting research, outreach, and instruction
- Addition of Construction Management Program and Process Control minor
- Susan B. McCormack Student Success Center – Student Recruiting, Student Advising, Career Services, K-14 Outreach

Challenges:

- Faculty and Staff turnover and morale
- Higher enrollments with fewer faculty; limited teaching resources
- Lack of pre-award grant support translates to fewer proposals submitted
- Few endowed faculty positions available to retain our own stars or draw new talent
- Difficulty attracting very high-quality graduate students
- Shallow teaching and research resources; many departments are “1 deep” in key areas
- Constant economic cycle of Wyoming
- Meeting course instructor needs with a patchwork of temporary lecturers instead of full-time faculty

Opportunities:

- Expand the High Performance Computing area to expand funding opportunities in many interdisciplinary application areas
- Expand Blockchain and Cryptocurrency activities, taking advantage of unique Wyoming legal framework
- Develop Wyoming Drone Research Facility
- Examine the concept of building a cyber range
- Expand student recruiting beyond the region to include Texas and California among others

Facilities and Space allocation

CEAS oversees the following buildings:

- Engineering (EN): 309,365 square feet; Sawtooth space not ADA compliant
- Engineering Education and Research Building (EERB): 102,950 square feet
- High Bay Research Facility (HBRF): 97,683 square feet (shared with SER and Piri Technologies, LLC)
- Graduate Research House on 14th and Bradley: 2,133 square feet
- A portion (4,036 sf) of the Lutz Building at 376 Lyon Street; contains wind tunnels and associated offices.

Overview of FY2021 Budget

Fund Source	FY2021	
Unrestricted Operating	\$15,636,211	98.5% salaries & benefits
Designated Operating	\$5,569,623	ATSC flight operations, Program Fees, Tier 1, T2 workshops; Tier 1 is \$4.77M
Restricted Operating	\$1,510,967	UW Foundation; transfer income to match expenses
Restricted Grants	\$11,255,460	Projected by current system information; does not account for new awards in FY2021
Total Annual Budget	\$33,972,261	All funding sources

FY2020-FY2021 budget variance

Fund Source	FY2020	FY2021	Variance Amt	Explanation
Unrestricted Operating	\$14,841,330	\$15,636,211	794,880	\$476,275 increase to Salaries & benefits; \$192,715 increase to Provost Initiatives; \$125,891 reduction in Internal Allocations
Designated Operating	\$6,459,580	\$5,569,623	(889,957)	Net of Tier 1 funding changes
Restricted Operating (Foundation)	\$1,779,949	\$1,510,967	(268,982)	Projected less Foundation expenditures
Restricted Grants	\$21,449,321	\$11,255,460	(11,255,460)	System generated data
Total Budget	\$44,530,180	\$33,972,261	(10,557,919)	

FY2020 Actuals to Budget

- Trending as expected
- variances due to category difference between budgeting and actual expenditures
- See details in May Board report



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Questions?