



College of Engineering
and Physical Sciences

Spring 2025 Advisory Council

College of Engineering and Physical Sciences

Daniel Dale, Interim Dean

25 April 2025



UNIVERSITY OF WYOMING

CEPS Overview: Ten departments, the School of Computing, and the new Engineering Science Division. Departments:

1. Atmospheric Science
2. Chemical & Biomedical Engineering
3. Chemistry
4. Civil & Architectural Engineering & Construction Mgmt
5. Electrical Engineering & Computer Science
6. Energy & Petroleum Engineering
7. Geology & Geophysics
8. Mathematics & Statistics
9. Mechanical Engineering
10. Physics & Astronomy

Updates: College Organization



Did you know?

- We are now the 2nd largest college at UW. A&S has more total students but we have the most graduate students.
- We span seven buildings across campus
- We operate the observatory atop Jelms Mountain, the Red Buttes Observatory, the UW Planetarium, the Geology Museum, ...
- The number of faculty and staff has almost doubled (>300)
- The cultures and expectations of engineers, scientists, and mathematicians are a little different, to be sure, but...

The departments are getting along quite well, interdisciplinary collaborations are rapidly increasing, and overall we are coalescing into a good team



Updates: College Organization



Dean's Office:

Steve Barrett (EECS)

- Associate Dean for Undergraduate Programs

Chip Kobulnicky (Physics & Astronomy)

- Associate Dean for Graduate Programs

Cindy Jones (SMCSS)

- Assistant Dean for Student Success

David Mukai (CAECM)

- HT Person Professor, and Head of the Engineering Science Division

Leadership Updates



Geology & Geophysics

Mark Clementz

- Department Head
- Returned from sabbatical
- Professor



Leadership Updates (cont.)



Electrical Engineering & Computer Science

Ian Walker

- Department Head
- Recruited from Clemson
- Professor and Wyoming Excellence Chair



Leadership Updates (cont.)



- **Tenure & Promotion to Associate Professor:**
 - Ping Zhong Math/Stats
 - Jifa Tian Physics & Astronomy
- **Promotion to Professor:**
 - Shane Murphy Atmospheric Science
 - TeYu Chien Physics & Astronomy
- **5-yr Fixed Term with Rolling Contract and Promotion:**
 - Bradley Carr Geology & Geophysics Senior Research Scientist
 - Nathan Clements Math/Stats Senior Lecturer
- **5-yr Fixed Term with Rolling Contract:**
 - Robert Erikson ES Senior Lecturer
- **3-yr Fixed Term Rolling Contract with Promotion:**
 - Christina Knox Math/Stats Associate Lecturer

Tenure and Promotion



- **14 Retirements or Resignations in the past year**

WyGISC/SoC	Di Yang
Geology & Geophysics	Ken Dueker
Mathematics and Statistics	William Weber
Physics & Astronomy	Aysenur Bicer
Mathematics and Statistics	Jorge Flores
Mathematics and Statistics	Ping Zhong
Civil & Architectural Eng Constr Mngmt	Milan Zlatkovic
Petroleum Engineering	Brian Toelle
Mathematics & Statistics	Dan Stanescu
Geology & Geophysics	Mike Cheadle
Physics & Astronomy	Michael Pierce
Mechanical Engineering	Kari Strube
Geology & Geophysics	Barbara John
Atmospheric Science	Bart Geerts

Retirements and Resignations



- **27 new hires in the past year**
 - 14 Assistant Professors
 - 11 Assistant Lecturers/Instructional Professors
 - 1 Department Head (Full Professor)
 - 1 Professor of Practice
- **STEM fans like to count:**
 - 14 Retirements or resignations versus 27 new hires
 - Gain of 13 faculty members
- **~20 faculty searches this semester**
 - Including cluster hires from a campus-wide AI push

New Faculty



Major	BS	MS	PhD
Atmospheric Sci	--	2	4
Architectural Eng	18	3	--
Chemical Eng	24	5	4
Civil Eng	39	15	7
Computer Eng	11	--	--
Computer Sci	34	8	2
Construction Mgt.	28	--	--
Electrical Eng	7	7	1
Energy Systems Eng	3	--	--
Environmental Eng	--	1	--
Mechanical Eng	52	8	3
Petroleum Eng	14	4	8

AY 2023-24 CEPS Graduates



Physical Sciences

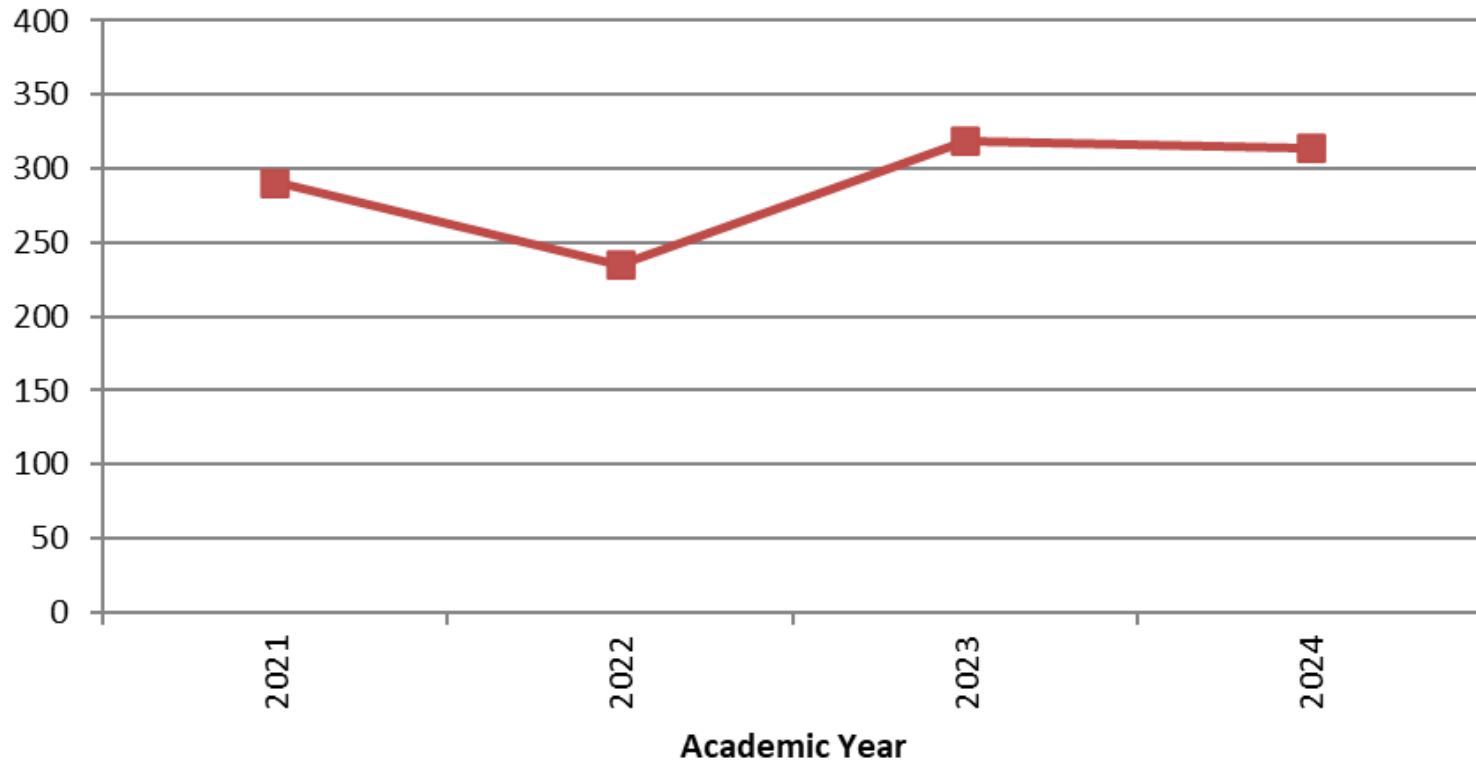
Major	BS	MS	PhD
Chemistry	16	0	6
Geology	17	17	2
Mathematics	12	0	1
Physics/Astronomy	6	10	4
Statistics	6	4	0

	BS	MS	PhD
Totals (% female)	287 (21%)	84 (35%)	42 (19%)

AY 2023-24 CEPS Graduates

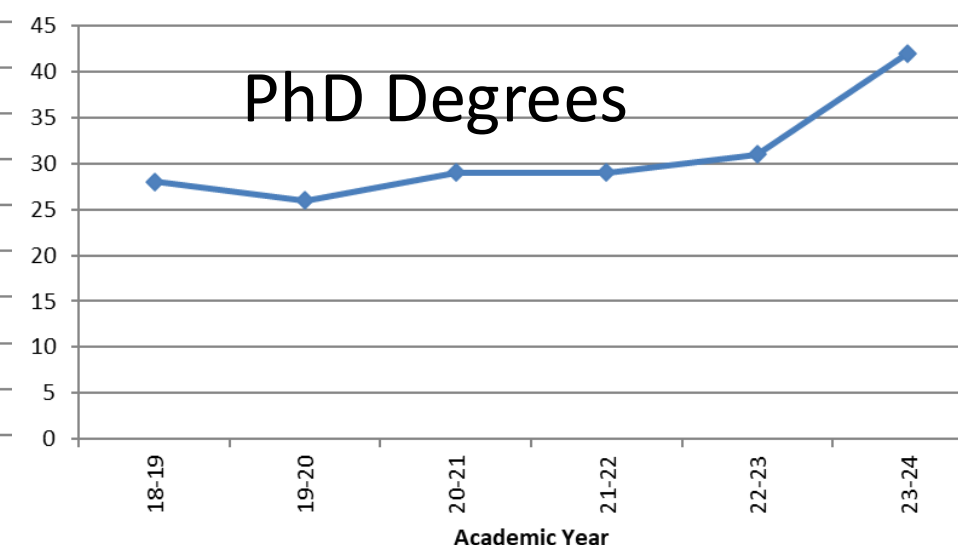
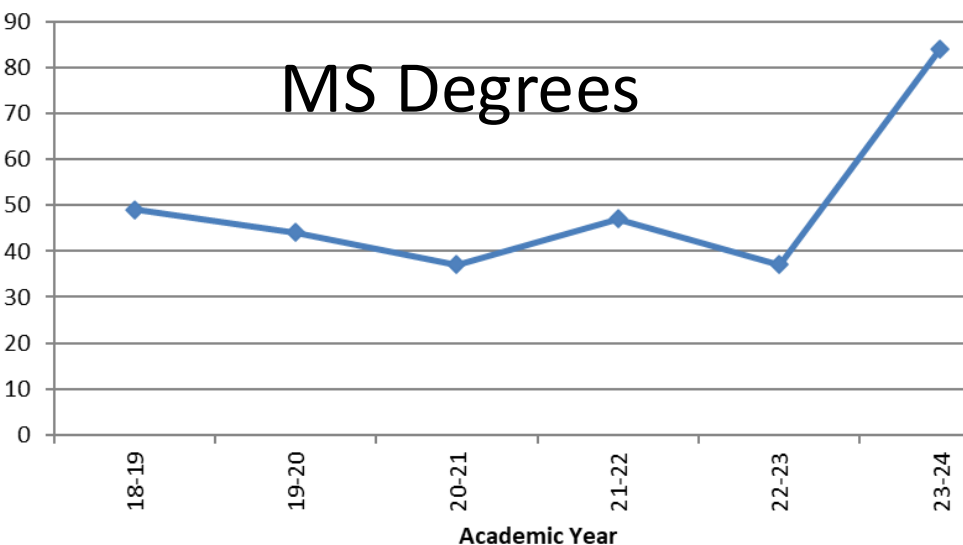
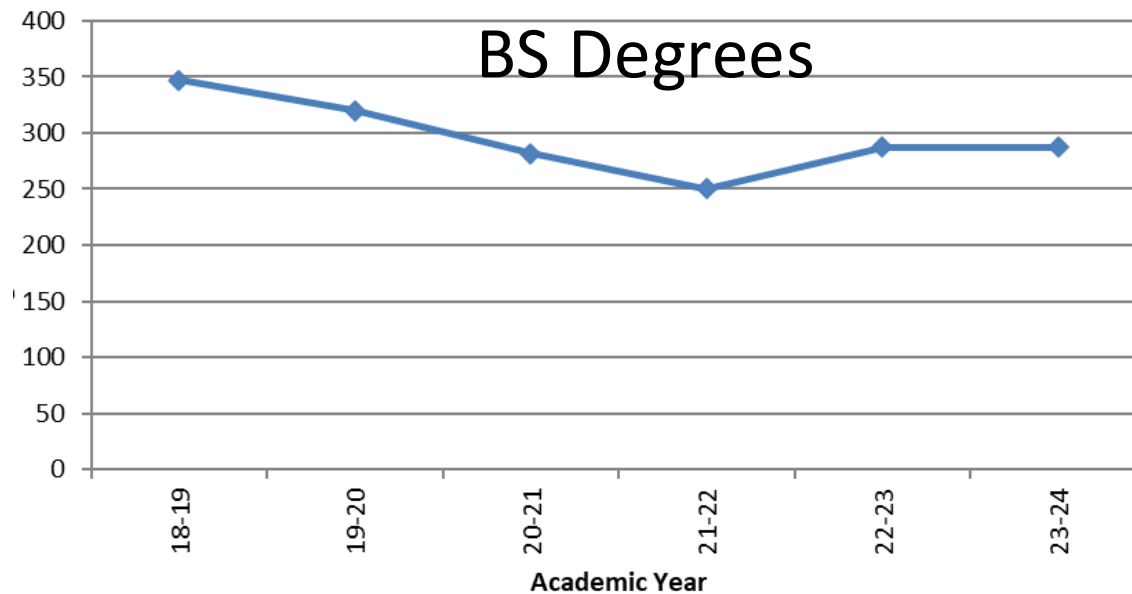


Entering First-Time, Full-Time, First Year Students



Entering Freshmen





Graduate Degree Production

*Mathematics & Statistics added for AY 22-23

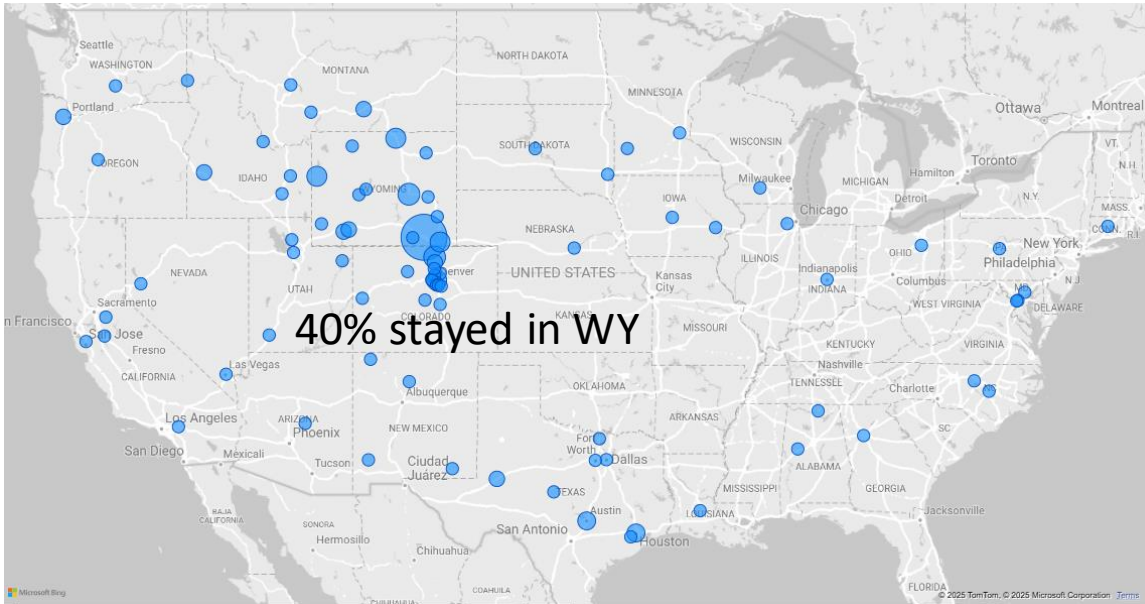
*Physical Science Majors added for AY 23-24



Post-Graduation Plans

Survey response rate: **73.5%** (299/407 both grad/ugrad)

- | | | | |
|------------------------|-------|------------------|-------|
| • Accepted Employment: | 67.5% | • Not Seeking: | 0.7% |
| • Grad School: | 14.1% | • Volunteering: | 0.3% |
| • Military: | 1.7% | • Still Looking: | 15.7% |



Other top locations of employment

- | | |
|------------|--------------------|
| • Colorado | • California |
| • Texas | • New Mexico |
| • Idaho | • Oregon |
| • Montana | • Washington |
| • Utah | • Intl: 3 Students |

2024 Employment Outcomes



Salary Information for BS Recipients

Major	Median Salary	Range of Salaries
Architectural Engineering <small>*N=3</small>	\$66,000	\$50,000 - \$74,000
Chemical Engineering <small>*N=5</small>	\$78,000	\$66,000 - \$80,000
Civil Engineering <small>*N=14</small>	\$70,250	\$45,000 - \$87,100
Computer Engineering <small>*N=3</small>	\$92,000	\$85,000 - \$100,000
Computer Science <small>*N=5</small>	\$72,000	\$51,000 - \$85,000
Construction Management BS <small>*N=9</small>	\$72,000	\$62,000 - \$80,000
Electrical Engineering <small>*N=3</small>	\$96,500	\$80,000 - \$115,000
Mechanical Engineering <small>*N=14</small>	\$76,500	\$61,000 - \$108,000
Petroleum Engineering <small>*N=6</small>	\$110,000	\$75,500 – \$120,000

Top Employers



UNIVERSITY
OF WYOMING











2024 Employment Outcomes (cont.)



Faculty research awards of note:

- Katie Li-Oakey (Chemical & Biomedical Engineering)
\$660k DoE
Single Crystalline and Polycrystalline Covalent Organic Framework Membranes: Experimentally And Theoretically Connecting Formation Conditions To Mass Transfer and Selectivity Performance
- Jifa Tian (Physics & Astronomy)
\$300k and \$484k NSF
Exploring van der Waals Superconducting Josephson Junctions for Robust Qubits
Exploring Metastable Magnetic States in Unconventional Magnetic Domains of 2D van der Waals Magnets



Awards and Recognition



Faculty research awards of note:

- Xiang Zhang (Mechanical Engineering)
\$600k NSF
CAREER: Multiscale Reduced Order Modeling and Design to Elucidate the Microstructure-Property-Performance Relationship of Hybrid Composite Materials
- Nga Nguyen (Electrical Engineering & Computer Science)
\$437k NSF
CAREER: Energy Storage Systems for Dynamic Reliability of Modern Clean Smart Grid

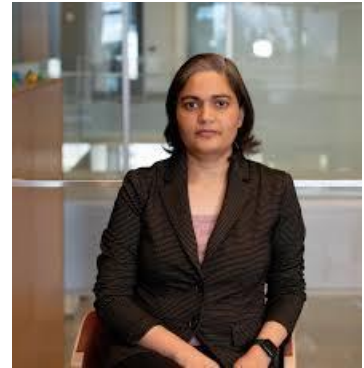


Awards and Recognition



Faculty research awards of note:

- Di Yang (School of Computing)
\$600k NASA
Evaluating long-term impacts of land-use transformation on fire regimes over western U.S. forest
- Diksha Shukla (Electrical Engineering & Computer Science)
\$564k NSF
CAREER: BrainCAPTCHA: Completely Automated Test for User Verification Using Dynamic Brain Biometrics



Awards and Recognition



Faculty research awards of note:

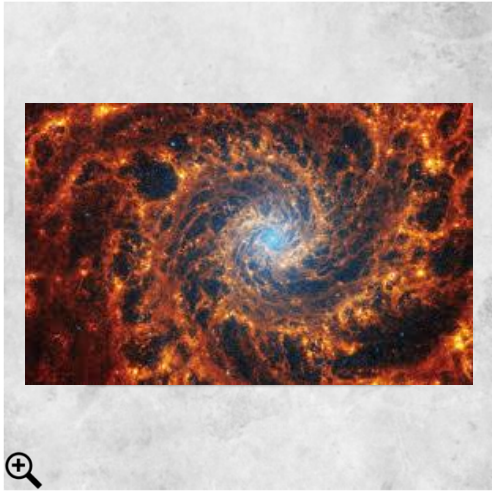
- Daniel McCoy (Atmospheric Science)
\$664k DoE
Linking Aerosol Forcing and Cloud Feedback to
Atmospheric Moisture Processing



Awards and Recognition



Fun News



Spiral Galaxy Stamps, Sheet of 4 Priority Mail Stamp ⓘ

In Stock

SKU: 123004

Issue Date: 1/21/2025

Celebrate NASA's James Webb Space Telescope and its continued exploration of deep space with this breathtaking Priority Mail® stamp.

Use these stamps to send mail quickly to those in your own universe all year long!

1. Format:

Sheet of 4
\$40.40

2. Choose a Quantity:

1

Total Pieces: 4

Total Price: \$40.40

☆ Save for Later

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More Information

Description



Celebrate NASA's James Webb Space Telescope and its continued exploration of deep space with this breathtaking Priority Mail® stamp.

Use these stamps to send mail quickly to those in your own universe all year long!

Captured in vivid detail, the telescope observed the spiral galaxy NGC 628 — 32 million light-years away from Earth, in the constellation Pisces.

The image on the stamp is a digitally colored depiction of the invisible bands of near- and mid-infrared light emitted by NGC 628. By assigning color to various infrared wavelengths, the digitized image allows us to see the galaxy with stunning clarity.

Art director Greg Breeding designed the stamp, using an image provided by NASA (National Aeronautics and Space Administration), ESA (European Space Agency), CSA (Canadian Space Agency), STScI (Space Telescope Science Institute), Janice Lee (STScI), Thomas Williams (Oxford), and the PHANGS (Physics at High Angular resolution in Nearby Galaxies) Team.

Spiral Galaxy is being issued in a pane of four stamps.

Awards and Recognition



The State of the College Today

- Faculty and staff numbers are increasing, but we have to keep pushing after years of reductions.
- We were recently classified as an R-1 institution.
- The new legislature may be less supportive of UW programs in general. Hopefully CEPS is spared.
- Our students are still getting good, well-paying jobs.
- We remain hopeful that the “slope” will continue to be positive going forward.

CEPS Going Forward





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Percent of Total Expenditures \$57.4M

