Sam Houston State University
College of Science
& Engineering Technology

2024 FALL MEETING

AGENDA

- **Faculty/Staff Updates**
  - **Dean's Office**
  - **New Faculty**
  - **Promotions**
  - **In Memoriam**
- Budget
- Enrollment and Graduation
- 2023 - 2024 Accomplishments
- Awards
- ACE
- Strategic Planning

Sam Houston State University
College of Science & Engineering Technology

DEAN'S OFFICE

Dean: **Melinda Holt**

Associate Dean: **Li-Jen Lester**

Associate Dean: **Dustin Jones**

Assistant to the Dean: **Angie Jackson**

Administrative Coordinator: **Shellie Armstrong**

Administrative Associate: **Dawn Martin**

Administrative Assistant: **Susan Floyd**

Marketing Specialist: **Jette Morris**

STEM CENTER

Co-Directors:

Jim Harper - Biological Sciences & **David Thompson** - Chemistry

Advisory Board:

Michael Dadeev – Engineering Technology
Ava Fujimoto-Strait – Environmental & Geosciences
Stanley Kelley – Agricultural Sciences
Taylor Martin – Mathematics & Statistics
Velvet Nelson – Environmental & Geosciences
Todd Primm – Biological Sciences
Joel Walker – Physics & Astronomy
Faruk Yildiz – Engineering Technology
Bing Zhou – Computer Science

COSET STUDENT AMBASSADORS

- **Karolina Carreon Garcia** - Environmental & Geosciences
- **Reagan Carter** - Chemistry
- **Megan Hicks** - Biological Sciences
- **Jesika Miller** – Biological Sciences
- **Arabella Moore** – Computer Science
- **Gabe Ramos** – Biological Sciences
- **Mary Swift** – Biological Sciences

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SCHOOL OF AGRICULTURAL SCIENCES
Mark Anderson

Assistant Professor: **Abbas Aboohamidi, PhD**

Assistant Professor: **Brittany Paris, PhD**

Assistant Professor: **Carly Hoffman, PhD**

Assistant Professor of Practice: **Maureen Victoria, PhD**

BIOLOGICAL SCIENCES
Aaron Lynne

Assistant Professor of Practice: **Jill Dewey, PhD**

Visiting Assistant Professor: **Cesar Cantu, PhD**

Lab Manager: **Charlie Suarez Reyes**

Field Manager: **Jesse Frakey**

Administrative Associate II: **Meredith Bassford**

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CHEMISTRY
Donovan Haines

COMPUTER SCIENCE
Bing Zhou

Lecturer: **Alberto Ceballos Delgado**

ENGINEERING TECHNOLOGY
Faruk Yildiz

Assistant Professor:
   Ali Dinc, PhD
   Derli D. Amaral Jr., PhD

Assistant Professor of Practice:
   Mahasen Abhelhafez

Visiting Assistant Professor:
   Muhammad Hashir Syed, PhD

MATHEMATICS AND STATISTICS
Damon Hay

Assistant Professor of Mathematics

Jonathan Johnson, Ph.D.

Wen Feng, Ph.D.

Clinical Assistant Professor of Mathematics

Farzana Hafeez, Ph.D.

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MATHEMATICS AND STATISTICS
Damon Hay

Visiting Assistant Professor

Yewen Huang, Ph.D.

Iason Moutzouris, Ph.D.

Heshan Pathirannehelage, Ph.D.

Diego Rojas, Ph.D.

Jooyoung Shin, Ph.D.

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MATHEMATICS AND STATISTICS
Damon Hay

Lecturer

Tamara Robert, M.S.

Administrative Associate

Kelsi Riley

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PHYSICS AND ASTRONOMY
Joel Walker

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PROMOTION TO SENIOR LECTURER

Sarah Couch – Biological Sciences

Volha (Olga) Minich – Biological Sciences

Kirk Burns – Computer Science

Julie Albert – Mathematics & Statistics

David Dippel – Mathematics & Statistics

Cathy Lockwood – Mathematics & Statistics

TENURE/PROMOTION TO ASSOCIATE PROFESSOR

Mardelle Atkins – Biological Sciences

David Moss – Environmental & Geosciences

Di Gao – Mathematics & Statistics

William Shepherd – Physics & Astronomy

PROMOTION TO PROFESSOR

James Harper – Biological Sciences

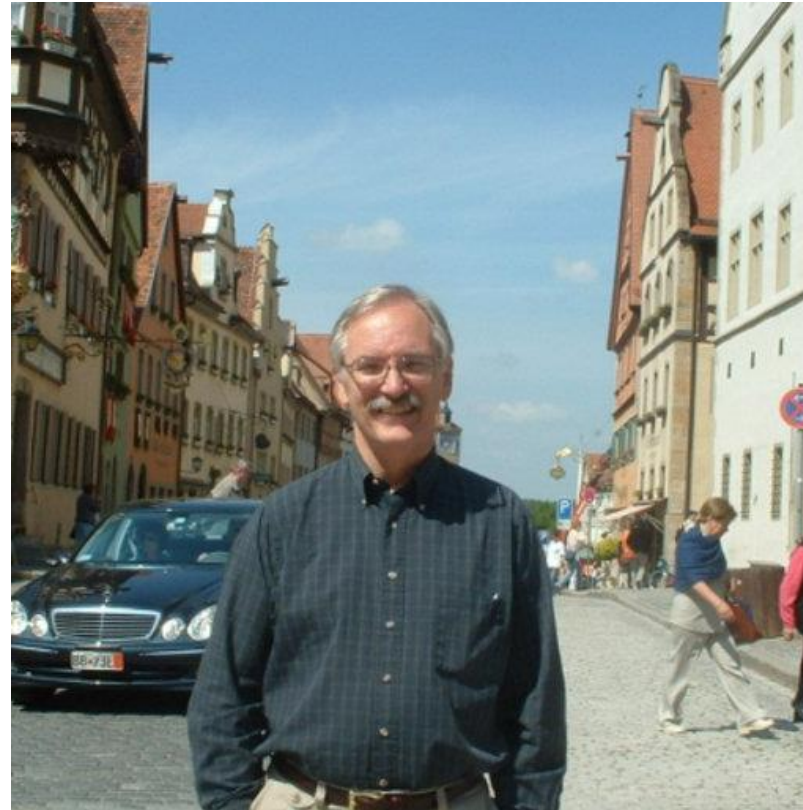**Dustin Gross** – Chemistry

Bing Zhou – Computer Science

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IN MEMORIAM

Sonny Sikes – Professor of Agriculture and Rodeo Team Coach

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IN MEMORIAM

Dr. Rick White – Professor of Chemistry

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BUDGET

- **New Initiatives:**   Asst Professor of Cybersecurity

    $15,000 - Biology O & M Increase

- **HEF:** $402,348 - Data Science Computer Lab

    $285,000 - Faculty Start-Up

- **Program Fee :** $9,384 - Continue funding student worker salary increase, which dips into our fund balance

- **Lab Fee:** $1,312 - Distribute to departments

- **Distance Learning (DLF):** $1,497* - Graduate Student Scholarship

- **IDC:**   Unknown - Graduate Students & Faculty Travel

- **Incentive/Buyout:**   Unknown

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BUDGET

Self-Funding Priorities for 2024 - 2025

- Assistant Professor of Data Science
- Half-time Lecturer of Agriculture for HCC Partnership
- Security Operations Center (SOC) Student Workers
- STEM Center
- Grant Management Support for Faculty/Staff
- Travel Funding
- Scholarships/Assistantships
  - Freshman Academic Scholarships
  - Graduate Assistantships for MS Engineering Technology
  - Graduate Scholarships

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BUDGET

Grant Funds for FY24:

Department	# of Grants	Award Amount
Agricultural Sciences	4	$1,225,472
Biological Sciences	8	$3,091,493
Chemistry	2	$430,884
Computer Science	5	$603,188
Environmental & Geosciences	2	$690,266
Engineering Technology	1	$72,136
Mathematics & Statistics	2	$56,665
Total	24	$6,170,104

BUDGET

Donation Balances (8/15/24):

Agricultural Sciences: $7.6 million

Biology: $4.4 million

Computer Science: $218,500

Engineering Technology: $26.4 million

Mathematics and Statistics: $752,700

Rodeo: $1.96 million

Chemistry: $1.26 million

Dean's Office: $330,000

Environmental and Geosciences: $1.95 million

Physics: $1.4 million

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ENROLLMENT UPDATE (8/20/24)

Undergraduate Headcount: - 0.1% (3,678)

Undergraduate Student Credit Hours: +1.2% (48,233)

Graduate Headcount: +6.2% (257)

Graduate Student Credit Hours: +10.6% (1,759)

ENROLLMENT UPDATE

GRADUATES
2023 - 2024

Fall 2023:   276

Spring 2024: 357

Summer 2024: <u>100</u>

                  733

GRADUATE EXIT SURVEY
Spring 2024

Spring 2024 Graduates

College
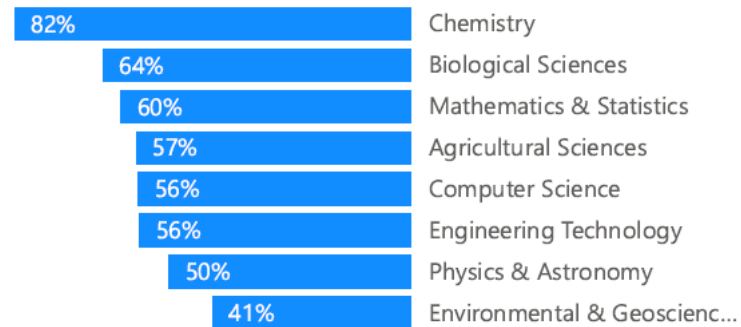
| All ▾ |

Degree Type
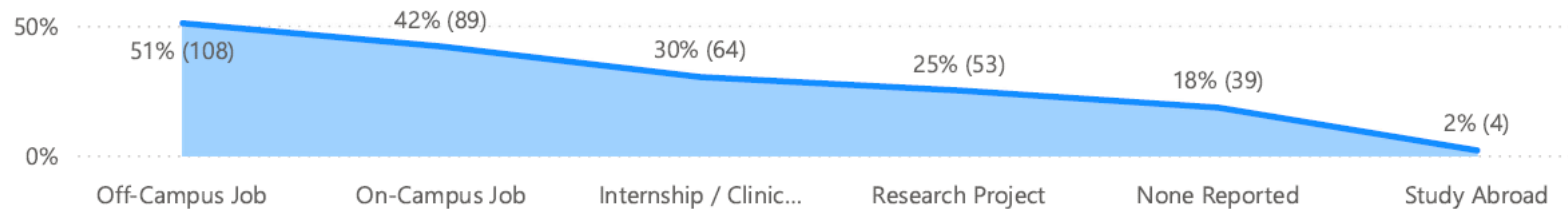
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350
Unique Grads

212
Total Unique Survey Respondents

Percent of Survey Respondents by Department

(% in this viz is calculated over total graduates not total respondents)

Department	Percent
Chemistry	82%
Biological Sciences	64%
Mathematics & Statistics	60%
Agricultural Sciences	57%
Computer Science	56%
Engineering Technology	56%
Physics & Astronomy	50%
Environmental & Geoscienc...	41%

Percent Reporting Participation in High-Impact Career Development Experiences

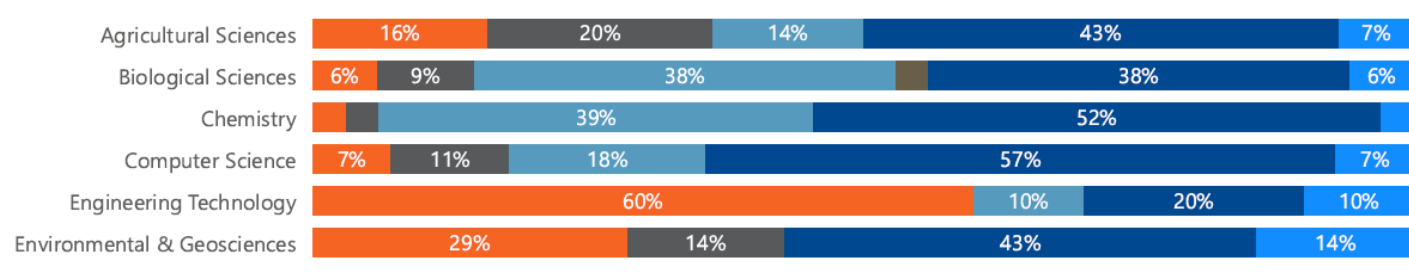(Students may report more than one experience. Percent is calculated over all survey respondents only.)

- Off-Campus Job: 51% (108)
- On-Campus Job: 42% (89)
- Internship / Clinic...: 30% (64)
- Research Project: 25% (53)
- None Reported: 18% (39)
- Study Abroad: 2% (4)

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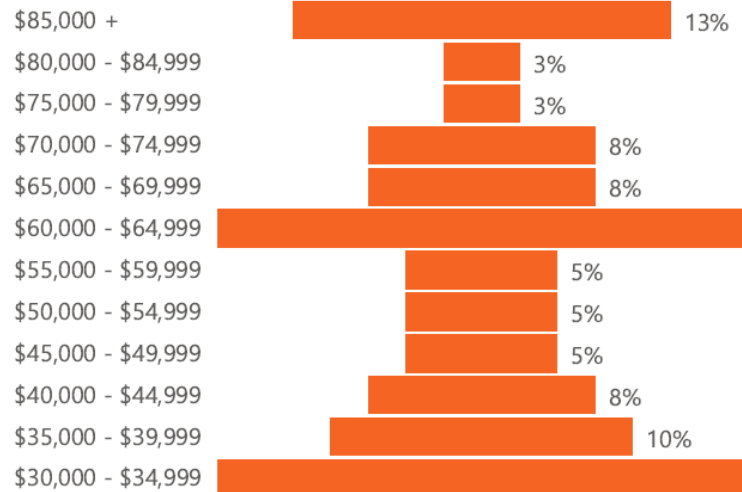
GRADUATE EXIT SURVEY
Spring 2024

Percent of Post-Grad Plans by Department

● Accepted offer ● Continuing current employment ● Continuing education ● Not seeking employment ● Seeking employment ● Weighing Offer(s)

Department					
Agricultural Sciences	16%	20%	14%	43%	7%
Biological Sciences	6%	9%	38%	38%	6%
Chemistry			39%	52%	
Computer Science	7%	11%	18%	57%	7%
Engineering Technology	60%		10%	20%	10%
Environmental & Geosciences	29%	14%	43%	14%	

Percent Reporting Salary Offer with Range

(Weighing Offers or Accepted Offer only.)

Range	Percent
$85,000 +	13%
$80,000 - $84,999	3%
$75,000 - $79,999	3%
$70,000 - $74,999	8%
$65,000 - $69,999	8%
$60,000 - $64,999	
$55,000 - $59,999	5%
$50,000 - $54,999	5%
$45,000 - $49,999	5%
$40,000 - $44,999	8%
$35,000 - $39,999	10%
$30,000 - $34,999	

Programs with Highest Average Reported Salary

(Arranged in Descending Order)

Value	Program
12.0	Digital Forensics, MS
12.0	Electronics&Comp Eng Tech, BS
12.0	Geographic Info Systems, MS
11.0	Engineering Technology, BS
10.0	Mechanical Engineering Tec, BS
9.0	Construction Management, BS
8.7	Computing Science, BS
8.0	Applied Arts & Sciences, BAAS
5.7	Engineering Design Tech, BS
5.3	Agricultural Business, BS
5.0	Agri Engineering Tech, BS
3.0	Animal Science, BS
2.5	Environmental Science, BS
2.0	Animal Science-Pre-Vet, BS

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- New Curriculum:
  - Concentrations:
    - BAAS with Criminal Justice Concentration
    - BAAS with General Business Concentration
    - BS Major in Engineering Technology with Biomedical Engineering Technology
  - MS Tracks:
    - Digital Forensics, Professional Track & Thesis Track
    - Information Assurance and Cybersecurity, Professional Track & Thesis Track
    - Mathematics, Internship Track

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STRATEGIC PRIORITY 1
Prioritize Student Success and Student Access

- Gateway Course Pass Rates:
  - MATH 1410: Fall + 8%, Spring + 6.9%.
  - MATH 1420: Fall - 7%, Spring + 13.3%. (Fall 2022 was up significantly.)
  - BIOL 1408: Fall + 8.1%, Spring + 18.7%.
  - GEOL 1404: Fall + 4.8%, Spring + 0.6%.
  - CHEM 1411: Fall + 8.1%, Spring – 4.2%. (Both up significantly over 3 years.)
  - CHEM 1412: Fall – 7.7%, Spring – 7.8%. (Both up significantly over 3 years.)
- STEM Center continued development of Ramps into Research
- Agricultural Sciences began a partnership with HCC. ETEC is exploring one.

STRATEGIC PRIORITY 1
Prioritize Student Success and Student Access

- Biological Sciences began an MOU with the Texas Autism Academy and collaborated with COHS and Services for Students with Disabilities to start AutismWorks.
- Initiated accreditation
  - ATMAE accreditation for BS Engineering Design Technology, BS Engineering Technology, BS Engineering Technology with an option in Electronics, BS Engineering Technology with an option in Environmental, Health and Safety Management. (January - October 2024)
  - ABET accreditation for Engineering Technology, Electronics and Computer Engineering Technology, and Software Engineering. (November 2023 - October 2024)
- Entered MOUs with The Washington Center for Internships and Academic Seminars to be a partner institution for the Clark Diplomatic Security Fellowship and Foreign Affairs IT Fellowship. (April - June 2024)

STRATEGIC PRIORITY 2
Embody a Culture of Excellence

- The MS in Information Assurance and Cybersecurity is ranked #1 in Cybersecurity Guide's 2024 affordability rankings.

- Computer Science entered an Educational Partnership Agreement with the National Security Agency.

- COSET began the MOU process with U.S. Census Bureau.

- COSET, COM, and COHS collaborated through the Colleagues & Collaboration seminar.

- In partnership with COHS and COM, faculty from Biological Sciences and Chemistry began enrichment programs for biomedical students and secured NIH funding to expand that work.

- The Natural History Collections acquired several significant collections.

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STRATEGIC PRIORITY 3
Elevate the Reputation and Visibility of SHSU

- SHSU and Agricultural Sciences completed Gibbs Ranch Phase I expansion and hosted the inaugural rodeo to a sold-out crowd.

- SHSU and Physics & Astronomy completed Dominey Observatory Phase I expansion, offering the only ADA compliant observatory of its kind.

- COSET co-sponsored the Texas A&M University Mitchell Institute Collider, Dark Matter, and Neutrino Physics Workshop; and Physics & Astronomy partnered with Kavli Institute of Theoretical Physics.

- Summer Camps: Engineering Technology began offering the Bearkat STEM Camp. Environmental and Geosciences hosted the Geoscience Exposure and Training in Texas (GET TX) summer camp.

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STRATEGIC PRIORITY 4
Expand and elevate our service to the State and beyond

- COSET faculty offered 29 ACE courses, impacting 771 students and providing $858k in economic impact.

- Engineering Technology faculty and students, in partnership with Entergy, completed a solar EV fast-charging station.

- The Cyber Forensics Intelligence Center and IT@Sam began the Security Operation Center (SOC).

- Computer Science entered a partnership with Purdue University Northwest's Cybersecurity Workforce Certification Training program for veterans, first responders, and active members of the United States Military.

- Environmental and Geosciences hosted ~100 Conroe Academy students to discuss career opportunities in the Geosciences and engaged with area students and teachers through the grant-funded project "Building an Engaging Place-Based Geography Learning Community in Metro Houston."

- The School of Agriculture hosted career and leadership development events for the FFA and 4H, serving over 3000 youth.

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  - **COSET Excellence**
  - **University**
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EXCELLENCE AWARDS

Graduate Student Excellence in Research: **Weerakkody (Sanduni) Ranasinghe, Biological Sciences**

Student Excellence in Teaching: **Erica Hagmeyer, Biological Sciences**

Adjunct Faculty Excellence in Teaching: **Kristin Nicholson, Agricultural Sciences**

Staff Excellence: **Rachell Haines, Chemistry**

Faculty Excellence in Research: **Tarek Trad, Chemistry**

Faculty Excellence in Teaching: **John Strait, Environmental & Geosciences**

Faculty Excellence in Service: **Reg Pecen, Engineering Technology**

UNIVERSITY AWARDS

SHSU Excellence in Teaching: **Tamara Cook**

Non-Tenure Track Teaching Excellence: **Vohla (Olga) Minich**

C-USA Faculty Achievement: **John Strait**

ORSP Pitch Competition: **ABM Islam**

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COSET STRATEGIC PLANNING

Co-Chairs:

Emma Bullock, Mathematics and Statistics

Pat Harris, Environmental Geosciences

COSET STRATEGIC PLANNING

Committee Members:

Kyle Stutts, Agricultural Sciences
Sharmin Hasan, Biology
Dustin Gross, Chemistry
ABM Islam, Computer Science
Ava Fujimoto-Strait, Environmental and Geosciences
Ross Guida, Environmental and Geosciences
Junkun Ma, Engineering Technology
Recayi Pecen, Engineering Technology
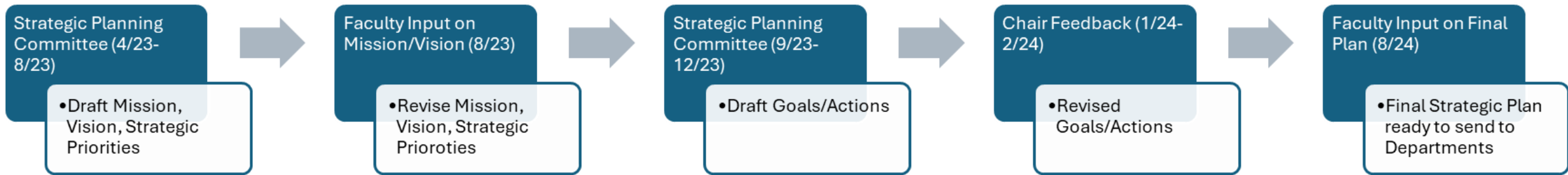Cathy Lockwood, Mathematics & Statistics
Scott Miller, Physics & Astronomy
William Shepherd, Physics & Astronomy
Shellie Armstrong, COSET
Li-Jen Lester, COSET

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STRATEGIC PLANNING
Timeline

Strategic Planning Committee (4/23-8/23)
- Draft Mission, Vision, Strategic Priorities

→

Faculty Input on Mission/Vision (8/23)
- Revise Mission, Vision, Strategic Prioroties

→

Strategic Planning Committee (9/23-12/23)
- Draft Goals/Actions

→

Chair Feedback (1/24-2/24)
- Revised Goals/Actions

→

Faculty Input on Final Plan (8/24)
- Final Strategic Plan ready to send to Departments

Sam Houston State University
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STRATEGIC PLANNING
Mission & Vision

Mission: The College of Science and Engineering Technology (COSET) offers quality undergraduate, graduate, and professional-level STEM programs that are flexible, student-centered, innovative, and engaged with the community. COSET fosters student-faculty relationships focused on career readiness, research opportunities, and professional and personal development.

Vision: The College of Science and Engineering Technology (COSET) prepares a diverse population of STEM leaders to enrich their communities and professions and solve critical STEM challenges facing our world.

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Need your feedback!

Priority Goal 1: *Student Success and Student Access*
> COSET Goals:
> 1: Support and enhance partnerships across campus and the community to improve retention and graduation of STEM majors.
> 2: Improve recruitment efforts.

Priority Goal 2: *Embody a culture of excellence*
> COSET Goal: Facilitate faculty and staff success

Priority Goal 3: *Elevate the reputation and visibility of SHSU*
> COSET Goal: Develop community relationships and interdisciplinary collaborations.

Priority Goal 4: *Expand and elevate our service to the State and beyond*
> COSET Goal: Develop sustainable community partnerships and student development opportunities.

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