

College of Science & Engineering Technology

2023 FALL MEETING

AGENDA

- **Introductions**
 - Dean's Office
 - New Faculty
 - Promotions
 - Retirements
 - In Memoriam
- Dean Search
- Budget
- Enrollment and Graduation
- 2022 - 2023 Accomplishments
- Awards
- Strategic Planning

DEAN'S OFFICE

Interim Dean: **Melinda Holt**

Associate Dean: **Li-Jen Lester**

Interim Associate Dean: **Dustin Jones**

Assistant to the Dean: **Angie Jackson**

Administrative Coordinator: **Shellie Armstrong**

Administrative Associate: **Katelyn Conner**

Administrative Assistant: **Susan Floyd**

Student Worker: **Jette Morris, Diego Mathenia**

SCHOOL OF AGRICULTURAL SCIENCES

Mark Anderson

Assistant Professor of Practice: **Robbie McQueen, M.S.**

BIOLOGICAL SCIENCES

Aaron Lynne

Assistant Professor: **Steven Koether, Ph.D.**

Assistant Professor: **Anand Karki, Ph.D.**

CHEMISTRY

Donovan Haines

COMPUTER SCIENCE

Bing Zhou

Assistant Professor of Practice & Director of Cyber Forensic Intelligence Center: **Robert Greenberg, M.S.**

Assistant Professor of Practice: **Jayanthi Ramamoorthy, M.S.**

ENGINEERING TECHNOLOGY

Faruk Yildiz

Assistant Professor: **Syed Hasib Akhter Faruqui, PhD**

ENVIRONMENTAL AND GEOSCIENCES

Joe Hill

Assistant Professor: **Yaping Xu, PhD**
GIS Administrator: **Kerry Billington**

MATHEMATICS AND STATISTICS

Damon Hay

Assistant Professor: **Giuseppe Martone, Ph.D.**

Visiting Assistant Professors:

- **Birch Bryant, Ph.D.**
- **Farzana Hafeez, Ph.D.**
- **Isanka Garli-Hevage, Ph.D.**
- **Emanuel Indrei, Ph.D.**
- **Samuel "Joey" Lippert, Ph.D.**
- **Nazek Obeidat, Ph.D.**
- **Mohammed Rahman, Ph.D.**
- **Janet Sipes, Ph.D.**
- **Marsha Young, Ph.D.**



PHYSICS AND ASTRONOMY

Joel Walker

Lecturer of Astronomy: **Daniel Horenstein, M.S.**

Lecture – Pool Faculty: **Doojin Kim, Ph.D**

MATHEMATICS AND STATISTICS

Damon Hay

Lecturers:

- **Sabrine Assi, Ph.D.**
- **Rawya Tubaishat, M.S.**

Lecturers – Pool Faculty:

- **Gerald Banaag, M.A.**
- **Yewen Huang, Ph.D.**
- **Hashani Lokugama, M.S.**
- **Tamara Robert, M.S.**
- **Pedro Romero-Rojas, Ph.D.**



TENURE/PROMOTION TO ASSOCIATE PROFESSOR

Adrian Villalta-Cerdas – Chemistry

Christopher Hobbs – Chemistry

Christopher Zall – Chemistry

Iftekhar Basith – Engineering Technology

Emma Bullock – Mathematics and Statistics

Doo Young Kim – Mathematics and Statistics

Timothy Trujillo – Mathematics and Statistics



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PROMOTION TO PROFESSOR

Lawrence (Art) Wolfskill – Agricultural Sciences

Tarek Trad – Chemistry

Li-Jen Lester – Dean's Office/Computer Science

RETIREMENTS

Doug Ullrich– Agricultural Sciences

Joan Hudson – Biological Sciences

David Burris – Computer Science

Deborah Henriksen – Engineering Technology



IN MEMORIAM

Dr. Nedom Muns, III - Professor of Engineering Technology



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DEAN SEARCH

Advisory Committee:

Emily Roper, Dean, College of Health Sciences

Jerry Cook, Distinguished Professor of Biological Sciences, TSUS Regents' Professor

Stanley F. Kelley, Professor, Agricultural Sciences

Reg Pecan, Quanta Endowed Professor, Engineering Technology

Darren Williams, Professor, Chemistry

Min Kyung An, Associate Professor & Graduate Advisor, Computer Science

Taylor Martin, Director of the STEM Center & Associate Professor, Mathematics & Statistics

William Shepherd, Assistant Professor, Physics & Astronomy

Ava Fujimoto-Strait, Instructor & Lab Coordinator, Environmental and Geosciences

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BUDGET UPDATE

- **Merit:** \$569,421
- **New Initiatives:** \$343,094 - 10 Visiting Assistant Professors in Mathematics and Statistics
- **HEF:** \$230,000 - New Faculty Start-up Funds
- **Program Fee:** \$79,728 - Student Worker Wage Increase
- **Distance Learning (DLF):** \$40,000 - Department O&M Increase
- **IDC/DLF:** \$25,000 - STEM Center



BUDGET UPDATE

Grant Funds for FY23:

Department	Number of Grants Awarded	Dollars Awarded
Agricultural Sciences	3	\$772,016
Biological Sciences	4	\$2,430,915
Chemistry	3	\$175,111
Computer Science	4	\$2,852,348
Engineering Technology	8	\$380,325
TOTALS	22	\$6,610,715

BUDGET UPDATE

Grant Funds for FY23:

Department	Number of Grant Submissions	Dollars Requested
Agricultural Sciences	10	\$22,098,456
Biological Sciences	15	\$10,888,220
Chemistry	7	\$1,279,424
Computer Science	19	\$3,344,547
Engineering Technology	18	\$3,853,127
Environmental & Geosciences	1	\$684,266
Mathematics & Statistics	2	\$1,098,430
Office of the Dean	1	\$989,891
Physics & Astronomy	1	\$898,892
TOTALS	74	\$45,135,253



BUDGET UPDATE

Donation Balances (8/4/23):

Agricultural Sciences: \$5.7 million

Biology: \$4.3 million

Computer Science: \$205,000

Engineering Technology: \$22.5 million

Mathematics and Statistics: \$672,000

Rodeo: \$1.1 million

Chemistry: \$1.1 million

Dean's Office: \$984,000

Environmental and Geosciences: \$1.2 million

Physics: \$178,000



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ENROLLMENT UPDATE (8/16/23)

Undergraduate Headcount: +4.8% (3,692)

Undergraduate Student Credit Hours: +5.66% (47,737)

Graduate Headcount: - 3.9% (249)

Graduate Student Credit Hours: -7.26% (1,628)

ENROLLMENT UPDATE



GRADUATE EXIT SURVEY

College of Science & Eng. Tech.

203/347 Respondents

59% Response Rate

39%



Accepted Job
Offers, Continuing
Employment,
Have Offers

33%



Still Seeking

26%



Continuing
Education

1%



Not Seeking

<1%



Entering the
Military

0%



Unknown



None of the
Following



Research
Project



Internship



More Than
One



Micro-
Internship



Study
Abroad



Co-op



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STRATEGIC PRIORITY 1

Prioritize Student Success and Student Access

- New Curriculum:
 - BS Data Science
 - 4+1 BS/MS Computing and Data Science
 - Graduate Certificate in Data Science
 - MS Business Security and Resilience (in progress)
 - BS Biochemistry
- Minors in:
 - Astronomy
 - Advanced Chemistry
 - Crime Analysis and Mapping
- Certificates in:
 - Crime Analysis and Mapping and Computing and Data Science (online)
- Concentrations:
 - Biochemistry and Medicine
 - Forensic Science
 - Biomedical Engineering Technology
 - Animal Care and Welfare
 - Ranch Management
- MOUs with Blinn College and UT - Tyler

STRATEGIC PRIORITY 1

Prioritize Student Success and Student Access

- Dual credit Mathematics courses for Huntsville High
- Science Training Community for Neurodiverse Students
- Data Science for Energy Transition Bootcamp with UH
- BearKat STEM Camp for junior and high school students
- NSA-funded GenCyber camp for future K-12 teachers
- Catapult into STEM Summer Bridge Course



STRATEGIC PRIORITY 1

Prioritize Student Success and Student Access

- Student Success Initiatives: CHEM 1411 +15%, MATH 1420 +5%
- Study abroad scholarships
- Increased graduate scholarships
- Welch Foundation funding support for student summer research
- Reynolds & Reynolds scholarship endowment for Computing Science majors

STRATEGIC PRIORITY 2

Embody a Culture of Excellence

- Computer Science programs recognized in 2023 U.S. News & World Report. No. 20 in Best Online Master's in Computer Information Technology Programs and No. 10 in Best Online Master's in Computer Information Technology Programs for Veterans
- College Factual ranks SHSU's Forensic Chemistry program No. 4 in the US in the categories 'Best Value Bachelor's Degree Colleges for Forensic Chemistry' and 'Highest Paid Bachelor's Degree Forensic Chemistry Graduates', and 5th in the US for 'Best Forensic Chemistry Bachelor's Degree Schools'. The program was ranked 7th in the US overall and ranked #1 in Texas. CollegeRaptor ranks the program 8th in the country and it is the top-ranked program in Texas. Bachelors Degree Center ranks the program 10th in the US among all Forensic Science BS degree programs.

STRATEGIC PRIORITY 2

Embody a Culture of Excellence

- American Association of Geographers Distinguished Teaching Award (John Strait and Ava Fujimoto-Strait).
- Van Vung Pham's book, *Hands-On Computer Vision with Detrectron2*, is #1 New Hot Release in Pattern Recognition on Amazon.
- Sorin Teodorescu received a Patent - Eccentric Reaming Tool.
- Ulan Dakeev published *Creo Parametric Modeling with Augmented Reality*
- Editorships: Scott Chapman (*Communications in Algebra*), John Pascarella (*The Southwestern Naturalist*)

STRATEGIC PRIORITY 2

Embody a Culture of Excellence

- The Integrative Natural History Series (Series Editor: William I. Lutterschmidt) published *The Mammals of Trans-Pecos Texas* by Yancy et al.
- Natural History Collections obtained several noteworthy collections, including early Texas well core samples and Davis Mountain geologic samples.
- Bridge Grants: Establishment of the Biomedical Research, Innovation, Training, and Employment (BRITE) Consortium at SHSU, Urban Agribusiness Ventures to Connect and Engage our Hispanic Community, Machine-Learning Algorithm to Optimize the Carbon Sequestration and Noise Attenuation of Roadside Vegetation in Texas

STRATEGIC PRIORITY 3

Elevate the Reputation and Visibility of SHSU

- Expansion of Gibbs Ranch
- Expansion of Dominey Observatory
- SkillsUSA Conference
- Partnership with Kavli Institute of Theoretical Physics



STRATEGIC PRIORITY 3

Elevate the Reputation and Visibility of SHSU

- Girl Scout STEM Day
- Zebrafish Research Experience for Huntsville High
- Co-sponsorship of the Texas A&M University Mitchell Institute Collider, Dark Matter, and Neutrino Physics Workshop
- Be(e) STEM Symposium



STRATEGIC PRIORITY 4

Expand and elevate our service to the State and beyond

- ETEC/Entergy Solar EV Fast-charging Station
- STEM Center Ramps in Research industry partner network
- Geoscience Exposure and Training in Texas (GET TX)
- Building an Engaging Placed-Based Geography Learning Community in Metro Houston
- Ten faculty began serving terms on state, national, and international professional boards.

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 - COSET Excellence
 - University
- Strategic Planning

EXCELLENCE AWARDS

Graduate Student Excellence in Research: **Herath Mudiyanse lunge Dnethri Wageesah Herath (Chemistry)**

Student Excellence in Teaching: **Emily Hays (Biological Sciences)**

Adjunct Faculty Excellence in Teaching: **Shelby Brock (Engineering Technology)**

Staff Excellence: **Amber Gates (COSET Instructional Designer)**

Faculty Excellence in Research: **Dr. Danhong Chen (Agricultural Sciences)**

Faculty Excellence in Teaching: **Dr. Tamara Cook (Biological Sciences)**

Faculty Excellence in Service: **Dr. Darren Williams (Chemistry)**

UNIVERSITY AWARDS

Professor Emeritus

Jim Tiller

Jian Zhong Wang

SHSU Staff Excellence Award: **Steven Koether**

Academic Affairs Distinguished Staff Awards

Rookie Award: **Katelyn Conner**

Distinguished Staff Member of the Year: **Steven Koether**

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- **Strategic Planning**

COSET STRATEGIC PLANNING

Co-Chair: Emma Bullock, Mathematics and Statistics

Co-Chair: Pat Harris, Environmental Geosciences

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

Recayi Pecen, Engineering Technology

Cathy Lockwood, Mathematics and Statistics

Scott Miller, Physics & Astronomy

William Shepherd, Physics & Astronomy

Shellie Armstrong, COSET

Li-Jen Lester, COSET



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STRATEGIC PLANNING

Mission & Vision

DRAFT Mission: The College of Science and Engineering Technology offers accessible quality undergraduate, graduate, and professional-level STEM programs that are flexible, student-centered, innovative, and engaged with the community. COSET provides integrated academic and student success services focused on career readiness, research opportunities, personal and professional development, and community service to support traditional and non-traditional students from diverse backgrounds.

DRAFT Vision: The College of Science and Engineering Technology will provide a high quality, innovative, interdisciplinary, and inclusive environment that enables students from diverse backgrounds to become STEM leaders. COSET faculty, staff, and students will enrich their communities and professions to solve the most critical STEM challenges facing our world.

STRATEGIC PLANNING

Proposed Goals

Need your feedback!

Priority Goal 1: *Student Success and Student Access*

COSET Goals:

Priority Goal 2: *Embody a culture of excellence*

COSET Goals:

Priority Goal 3: *Elevate the reputation and visibility of SHSU*

COSET Goals:

Priority Goal 4: *Expand and elevate our service to the State and beyond*

COSET Goals:



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Have a great year!



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COSET STRATEGIC PLANNING

Questions? Suggestions?