
AGENDA

UNIVERSITY OF HOUSTON SYSTEM ACADEMIC AND STUDENT SUCCESS COMMITTEE MEETING

DATE: Thursday, November 21, 2024

TIME: 12:30 PM

PLACE: University of Houston-Clear Lake
Bayou Building, Garden Room, Room 1510
2700 Bay Area Blvd.
Houston, TX 77058

Chair: Beth Madison

Vice Chair: Durga D. Agrawal

Members: Alonzo Cantu
Gregory C. King
Tammy Murphy
Tomas Bryan - Non Voting
Tilman J. Fertitta, Ex Officio

I. Academic and Student Success Committee

Presenter: Chair Beth Madison

A. Call to Order

Presenter: Chair Beth Madison

B. Approval of Committee Minutes

-August 21, 2024, Academic, Research, and Student Success Committee Meeting

Action: Approval

Presenter: Chair Beth Madison

C. Approval of Faculty Tenure – University of Houston System

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Action: Approval

Presenter: Dr. Diane Chase, Senior Vice Chancellor for Academic Affairs and Provost

D. Approval of New Academic Program(s) - University of Houston

6

Action: Approval

Presenter: Dr. Diane Chase, Senior Vice Chancellor for Academic Affairs and Provost

- E. Approval is requested for the University of Houston System Board of Regents Academic, Research, and Student Success Committee Charter 23

Action: Approval

Presenter: Dr. Diane Chase, Senior Vice Chancellor for Academic Affairs and Provost

- F. Presentation of Low Producing Programs Report and Approval of Program Closure – University of Houston System 26

Action: Approval

Presenter: Dr. Diane Chase, Senior Vice Chancellor for Academic Programs and Provost

- G. Report on Sponsored Contracts and Grants over \$1M – University of Houston System 31

Action: Information

Presenter: Dr. Claudia Neuhauser, Vice Chancellor for Research

- H. Research Presentation - University of Houston-Clear Lake 44

Action: Information

Presenter: Dr. Claudia Neuhauser, Vice Chancellor for Research

- I. Success Story - University of Houston-Clear Lake 54

Action: Information

Presenter: Dr. Diane Chase, Senior Vice Chancellor for Academic Affairs and Provost

II. **Executive Session**

Presenter: Chair Beth Madison

- A. 1. Consultation with System Attorney Regarding Legal Matters, and/or Contemplated Litigation or Settlement Offers.
Texas Gov't Code Section 551.071
2. Deliberations regarding the Purchase, Exchange, Sale or Value of Real Property.
Texas Gov't Code Section 551.072
3. Deliberation Regarding a Prospective Gift.
Texas Gov't Code Section 551.073
4. Personnel Matters Relating to appointment, Employment, Evaluation, Assignment, Duties, Discipline, or Dismissal of Officers or Employees including

but not limited to the Chancellor, Presidents, Vice Chancellors, in the Division of Athletics and members of the Board of Regents.
Texas Gov't Code Section 551.074

III. **Report and Action from Executive Session**

Presenter: Chair Beth Madison

IV. **Adjourn**

FACULTY PROMOTION LIST
Effective Spring 2025
UH-Clear Lake

College/Department	Name	Present Rank/Institution	Recommended Rank at UHCL	Description
Associate Provost for Research and Sponsored Programs	Dr. W. Matthew Reichert	Full Professor University of South Alabama	Professor with Tenure	Tenure with Hire

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Approval of Faculty Tenure – University of Houston System

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Board approval is requested for faculty hire with tenure recommendation to be effective Spring 2025. After rigorous review, the Senior Vice Chancellor for Academic Affairs and respective President recommend promotion to the Chancellor who then makes recommendations to the Board.

SUPPORTING DOCUMENTATION: Faculty Promotion List

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Administration recommends approval of this item

COMPONENT: University of Houston System



SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE



CHANCELLOR

Renu Khator

11/15/24

DATE

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Approval of New Academic Program(s) – University of Houston System

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

1. Masters in Cybersecurity at the University of Houston-Victoria
2. Bachelor of Science in Aviation Science at the University of Houston-Victoria
3. Bachelor of Arts in Graphic Design University of Houston-Victoria
4. Ph.D. in Statistics and Data Science at the University of Houston

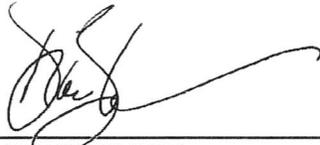
SUPPORTING

DOCUMENTATION: Excel Spreadsheet
Executive Summaries
Pro Forma
Budget and Enrollment Spreadsheets

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Administration recommends approval of this item

COMPONENT: University of Houston System



SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE



CHANCELLOR

Renu Khator

11/15/24

DATE

University of Houston System
Summary of New Academic Programs
Academic, Research and Student Success Committee
Thursday, November 21, 2024

Component	Program	Proposed Implementation Date	Purpose	Comments
UHV	Masters in Cybersecurity	Fall 2025	The University of Houston – Victoria requests approval to establish a Master of Science in Cybersecurity. The proposed degree is 30 semester credit hours and will train students in key areas of cybersecurity, equipping them with the ability to make ethical decisions, manage risks, and implement security policies effectively. Through this program, students will learn to assess threats, develop policies, and apply risk mitigation strategies in a fast-evolving digital landscape. These skills will prepare graduates to enter careers in cybersecurity, where the ability to balance privacy, security, and legal requirements is essential for success. The Bureau of Labor Statistics projects a 33% increase in Information Security Analyst positions from 2020-2030. As of June 2023, there were over 663,000 open cybersecurity positions nationwide, with only 69 workers available for every 100 job openings. The Texas Workforce Commission predicts that by 2028, the demand for Information Security Analysts in Texas will increase by approximately 39%. Seven public institutions in Texas offer related Cybersecurity programs, including Stephen F. Austin State University, Texas A&M University-San Antonio, University of Houston, University of North Texas, University of Texas at Dallas, University of Texas at San Antonio, and University of Texas at Tyler. The program expects to generate revenue in the third year of operation.	Online
UHV	Bachelor of Science in Aviation Science	Fall 2025	The University of Houston – Victoria requests approval to establish a Bachelor of Science in Aviation Science. The proposed degree is 120 semester credit hours and will provide students with marketable skills and knowledge so that they are prepared to meet the needs of the aviation industry, both on the ground and in the air. The proposed program, supported by a \$3.1 million appropriation from the Texas Legislature in 2023, will promote the efforts of the UH System to grow in national competitiveness by meeting a critical industry need, advancing student achievement and success, and serving the diverse Houston metroplex and Texas. The Bureau of Labor Statistics predicts a 5.6% growth in the total number of commercial pilots and a 19.3% growth in the total air transportation workers by 2032, with about 16,000 annual openings for commercial pilots over the same period. Based on the report, the 2023 median pay for airline and commercial pilots is \$171,210 per year with more than 142,600 employed in this occupation. Eight programs share characteristics with the Aviation Science program at UHV: Angelo State University, Baylor University, LeTourneau University, Schreiner University, Stephen F. Austin State University, Texas A&M University – Central Texas, Texas Woman’s University, and University of North Texas. The program expects to generate revenue in the first year of operation.	In-Person
UHV	Bachelor of Arts in Graphic Design	Fall 2025	The University of Houston – Victoria requests approval to establish a Bachelor of Arts in Graphic Design. The proposed degree is 120 semester credit hours and will provide students with the skills and knowledge necessary to use visual media to communicate different ideas in a global and diverse world. This program prepares students for careers in design, digital communication, print communications, marketing, public relations, advertising, and other fields that use visual media for effective communication. According to the Bureau of Labor Statistics, the mean hourly wage of graphic designers is \$28.32 per hour, or a median annual wage of \$58,910. Additionally, there were 270,900 graphic designer jobs in 2022, with a projected job growth outlook of 3% (“as fast as average”). The Texas Workforce Commission indicates that 2,871 graphic designers will be needed in the Austin area by 2031, while MyTexasFuture.org predicts the growth for graphic designers across the state of 10.3%, with a median salary of \$47,557. St. Edward’s University, Wayland Baptist University, and Texas A&M-Corpus Christi offer a B.A. in Graphic Design. Numerous institutions have graphic design programs that grant a B.F.A. credential including the University of Houston, Houston Christin University, Sam Houston State University, and West Texas A&M University. The program expects to generate revenue in the fourth year of operation.	Hybrid
UH	Ph.D. in Statistics and Data Science	Fall 2026	The University of Houston requests approval to establish a Doctor of Philosophy in Statistics and Data Science. The proposed degree consists of 71 semester credit hours to be completed over five years. The program provides training in statistical theory, data analysis, and computing, with a focus on modern statistical methods for big data. Students will develop expertise in areas such as machine learning, data mining, Bayesian statistics, and statistical computing, and will have the opportunity to apply these skills to real-world problems. Graduates of the program will be well-equipped to pursue careers as statisticians, data scientists, or faculty members in academic institutions. The Bureau of Labor Statistics projects the employment of statisticians to grow 32% and data scientists by 35% from 2022 to 2032, much faster than the average for all occupations. The National Association of Colleges and Employers survey found the median starting salary for Ph.D. graduates in mathematics and statistics was \$110,000 in 2023, compared to \$84,000 for those with a master’s degree and \$70,000 for those with a bachelor’s degree. Rice University offers a small Ph.D. program in statistics, which focuses on theoretical and applied statistics. UT Health in Houston offers a Ph.D. program in biostatistics only, which prepares students to apply statistical methods in health-related fields. UT Austin, Texas A&M University, UT Dallas, Southern Methodist University, UT San Antonio and Texas Tech University offer Ph.D. programs in statistics that cover a wide range of statistical topics and specializations, from theoretical to applied statistics. The program expects to generate revenue in the fourth year of operation.	In-Person

**MASTER OF SCIENCE IN CYBERSECURITY
UNIVERSITY OF HOUSTON-VICTORIA**

Congruence with System Goals and University Mission

The proposed Master of Science in Cybersecurity aligns with the UH System and University of Houston – Victoria’s (UHV) goals by promoting academic excellence, innovation, workforce development, and community engagement, positioning UHV as a leader in cybersecurity education. The proposed program will seek to:

- *Advance academic excellence:* The program offers a cutting-edge curriculum that integrates cybersecurity, AI, and business principles, preparing students for the evolving job market.
- *Foster innovation:* By emphasizing AI and business in cybersecurity, the program promotes innovation and strengthens industry partnerships, aligning with UH System’s focus on real-world impact.
- *Support workforce development:* The program addresses the critical need for skilled cybersecurity professionals in Texas, contributing to regional economic growth and workforce readiness.

The program also aligns with UHV’s mission by:

- *Enhancing Educational Access:* Offering online and ITV options broadens access to high-quality education, supporting UHV’s mission to serve diverse student populations.
- *Fulfilling Strategic Goals:* The program’s focus on interdisciplinary education and real-world applications aligns with UHV’s vision of becoming a leader in innovative, workforce-oriented education.
- *Strengthening Community Engagement:* With strong industry ties and a focus on practical outcomes, the program supports UHV’s strategic goals of enhancing community engagement and preparing students for impactful careers.

In addition, as UHV grows its reputation as a “destination university” for undergraduate students, this graduate degree in Cybersecurity adds to our graduate-level offerings in computer-related fields and provides a clear and straightforward career-growth pathway for those completing a BS in Computer Science or Computer Information Systems with UHV.

Program Description

The M.S. in Cybersecurity program consists of 18 credit hours of core courses and 12 credit hours of prescribed electives or thesis work. The program aims to train students in key areas of cybersecurity, equipping them with the ability to make ethical decisions, manage risks, and implement security policies effectively. Through this program, students will learn to assess threats, develop policies, and apply risk mitigation strategies in a fast-evolving digital landscape. These skills will prepare graduates to enter careers in cybersecurity, where the ability to balance privacy, security, and legal requirements is essential for success. Upon completion of this program, students will be able to:

- Apply ethical principles and make informed decisions in cybersecurity scenarios by balancing the needs for security, privacy, and organizational objectives in a global and legal context.

**MASTER OF SCIENCE IN CYBERSECURITY
UNIVERSITY OF HOUSTON-VICTORIA**

- Evaluate and implement cybersecurity policies, governance frameworks, and compliance standards to ensure organizational security and regulatory adherence.
- Develop the ability to conduct comprehensive risk assessments, identify cybersecurity vulnerabilities, and create risk mitigation strategies that align with organizational goals.

The curriculum balances theoretical knowledge with practical skills through hands-on experiences, lab work, and real-world applications. Both thesis and non-thesis tracks are available, with the thesis option preparing students for potential doctoral studies. The program prepares graduates for roles such as cybersecurity analysts, consultants, and Chief Information Security Officers.

Student and Job Market Demand

The cybersecurity job market is experiencing rapid growth, with the Bureau of Labor Statistics projecting a 33% increase in Information Security Analyst positions from 2020-2030. As of June 2023, there were over 663,000 open cybersecurity positions nationwide, with only 69 workers available for every 100 job openings. In Texas, demand is expected to increase by 39% by 2028. However, the current supply of qualified graduates is insufficient to meet this demand, creating a significant skills gap that this program aims to address. In 2020, only 9,608 students graduated with a cybersecurity degree nationwide, with approximately 800 in Texas. This shortage is particularly acute in the Gulf Coast region, where numerous Fortune 500 companies require cybersecurity professionals to protect their digital assets. The program has received support from UHV's Cybersecurity Advisory Committee, composed of industry leaders who recognize the need for specialized cybersecurity education.

Program Duplication

According to the Texas Higher Education Coordinating Board program inventory, there are seven public institutions in Texas that offer related Cybersecurity programs, including Stephen F. Austin State University, Texas A&M University-San Antonio, University of Houston, University of North Texas, University of Texas at Dallas, University of Texas at San Antonio, and University of Texas at Tyler.

Faculty Resources

The program will initially utilize existing Computer Science and Business faculty with relevant expertise. Key faculty members include Dr. Daya Nand (Associate Professor of Computer Science, Ph.D. in Network Security) will lead the program and teach program core courses; Dr. Hardik Gohel (Associate Professor of Computer Information Sciences, with expertise in AI and cybersecurity) will teach applied AI related cybersecurity courses; Dr. Asahi Tomitaka (Assistant Professor of Computer Science, with a background in engineering and computer science) will cover traditional computer science-related cybersecurity courses. As the program grows, additional faculty may be hired to support expansion. Current faculty possess a range of research interests and industry experience in areas such as network security, cloud computing, and cybersecurity management. The program will also leverage UHV's existing computer labs and online learning infrastructure.

MASTER OF SCIENCE IN CYBERSECURITY
UNIVERSITY OF HOUSTON-VICTORIA

State or National Need

The proposed M.S. in Cybersecurity addresses a critical workforce need in Texas and nationally. With cyber threats increasing across all sectors, there is urgent demand for professionals with advanced cybersecurity skills. The program will contribute to closing the cybersecurity talent gap, enhancing organizational and national security, and supporting economic growth in the technology sector. The program aligns with the Texas Higher Education Coordinating Board's strategic plan, *Building a Talent Strong Texas*, by providing graduates with advanced knowledge and postsecondary credentials of value in a high-demand field. It also supports the state's goal of becoming a leader in the technology industry. At the national level, the program addresses the Department of Homeland Security's call for increased cybersecurity education to protect critical infrastructure and national security interests. By producing highly skilled cybersecurity professionals, the program will contribute to the economic development of the Gulf Coast region and Texas as a whole, while also enhancing the nation's capacity to address evolving cyber threats.

PRO FORMA FOR MS in Cybersecurity

		Operating Years							
		Year 0	FY2026	FY2027	FY2028	FY2029	FY2030		
			Fall25	Fall26	Fall27	Fall28	Fall29		
Enrollments									
Cohort 1			15	13					
Cohort 2				20	18				
Cohort 3					25	22			
Cohort 4						25	22		
Cohort 5							25		
Cohort 6									
Total			15	33	43	47	47		
Expenses									
Faculty (9 month)		Salary	% effort	Year 0	FY2026	FY2027	FY2028	FY2029	FY2030
Daya Nand		92,000	80%		73,600	75,072	76,573	78,105	79,667
Hardik Gohel		79,532	20%		15,906	16,225	16,549	16,880	17,218
Asahi Tomitaka		80,000	20%		16,000	16,320	16,646	16,979	17,319
Position 4					-	-	-	-	-
Position 5					-	-	-	-	-
Position 6					-	-	-	-	-
Adjuncts					-	-	-	-	-
Subtotal		251,532	120%	-	105,506	107,617	109,769	111,964	114,204
Faculty FTE					1.2	1.2	1.2	1.2	1.2
Staff (12 month)									
Position 1--college-level shared administrative support		40,000	5%		2,000	2,040	2,081	2,122	2,165
Position 2					-	-	-	-	-
Position 3					-	-	-	-	-
Position 4					-	-	-	-	-
Position 5					-	-	-	-	-
Position 6					-	-	-	-	-
Graduate Students					-	-	-	-	-
Subtotal		40,000	5%	-	2,000	2,040	2,081	2,122	2,165
Staff FTE					0.05	0.05	0.05	0.05	0.05
Total Salaries				-	107,506	109,657	111,850	114,087	116,368
Benefits @ 20.5%				-	22,039	22,480	22,929	23,388	23,856
Total Personnel				-	129,545	132,136	134,779	137,474	140,224
Non-Personnel									
Marketing/Recruiting					5,000	4,000	3,000	3,000	3,000
Scholarships & Tuition Assistantships						-	-	-	-
Annual maintenance & operations					1,000	1,000	1,000	1,000	1,000
Library and Information Technology					1,000	1,000	1,000	1,000	1,000
Accreditation					-	5,000	5,000	5,000	5,000
Facilities						-	-	-	-
Laboratory and other equipment					3,000	3,000	3,000	3,000	3,000
Other					-	-	-	-	-
Total Non-Personnel					10,000	14,000	13,000	13,000	13,000
Allocated to university operations	10%				7,952	17,493	35,805	37,925	45,360
Total Annual Expense				\$ -	\$ 147,497	\$ 163,629	\$ 183,584	\$ 188,400	\$ 198,584
Revenue									
Formula Funding Generated					-	-	152,157	152,157	239,104
Statutory Tuition Applied to Formula					-	-	(22,050)	(22,050)	(34,650)
Subtotal: State General Revenue					-	-	130,107	130,107	204,454
UH Tuition and Fees					87,750	193,050	251,550	274,950	274,950
Allocated to set aside per student					(8,235)	(18,117)	(23,607)	(25,803)	(25,803)
Total Revenue from Enrollment					79,515	174,933	358,050	379,254	453,601
Philanthropy and other External Revenue					-	-	-	-	-
Net Revenue					79,515	174,933	358,050	379,254	453,601
Net Annual Gain/(Loss)				-	\$ (67,982)	\$ 11,304	\$ 174,466	\$ 190,854	\$ 255,017
Cumulative Gain/(Loss)				-	\$ (67,982)	\$ (56,678)	\$ 117,788	\$ 308,642	\$ 563,659

Campus Signoff

John S. Olson

Date: 9/12/2024

Daniel Chang, Program Director, Office of the Provost Signature: _____

Date: _____

Vivianne Do, Executive Director, Office of the Provost Signature: _____

Date: _____

**BACHELOR OF SCIENCE IN AVIATION SCIENCE
UNIVERSITY OF HOUSTON-VICTORIA**

Congruence with System Goals and University Mission

The Bachelor of Science in Aviation Science program at University of Houston–Victoria (UHV) will provide students with marketable skills and knowledge so that they are prepared to meet the needs of the aviation industry, both on the ground and in the air. The proposed program, supported by a \$3.1 million appropriation from the Texas Legislature in 2023, will promote the efforts of the UH System to grow in national competitiveness by meeting a critical industry need, advancing student achievement and success, and serving the diverse Houston metroplex and Texas. The B.S. in Aviation Science will be a residential program, based on the Victoria campus, promoting the vision of a destination campus and vital engagement with community needs and resources such as the county airport. In addition, aviation faculty members will participate in cutting-edge research to provide accessible education to the local community and promote academic excellence of students.

Program Description

The proposed B.S. in Aviation Science is designed to prepare students with broad understanding of, and marketable skills, in aviation. The program requires 120 semester credit hours; students can choose either a Management Track or a Flight Track. The Management Track prepares students for careers in airport and airline management, flight dispatch, ground support, and other related fields. The Flight Track provides necessary knowledge and hands-on training to qualify for several pilot ratings/licenses (through the Federal Aviation Administration), leading to a career as a professional pilot.

All students will be able to understand, demonstrate, and apply subjects in aviation including the history of aviation, fundamental theory of flight, federal regulatory compliance, and airlines and airport operations. Management Track students will be equipped to make managerial decisions in real-world, aviation-related problems as well as communicate effectively and collaborate with teams from diverse backgrounds. Flight Track students will acquire technical knowledge for piloting aircraft, including flight planning, navigation, aircraft maneuver, airlines and airport operations, and National Air Space. The Flight Track is designed to provide hands-on experience in operating aircraft and pursuit of FAA certificates required for careers in commercial aviation. The B.S. in Aviation Science will approach these learning outcomes by requiring completion of the designated core curriculum, aviation-related foundation courses, and concentration courses focusing on management skills and data analytics (Management Track) or ground courses and hands-on flight experiences (Flight Track).

Student and Job Market Demand

Aviation is expected to be a growing industry. The Bureau of Labor Statistics predicts a 5.6% growth in the total number of commercial pilots and a 19.3% growth in the total air transportation workers by 2032, with about 16,000 annual openings for commercial pilots over the same period. Based on the report, the 2023 median pay for airline and commercial pilots is \$171,210 per year with more than 142,600 employed in this occupation.

The long-term occupational growth projections (2022-2032) of commercial pilots in Texas (11.8%) is greater than that of national level (3.9%) with a projected 750 annual openings in Texas. In 2021-2022, 2,103 bachelor's degrees were awarded nationwide (141 in Texas) in CIP

**BACHELOR OF SCIENCE IN AVIATION SCIENCE
UNIVERSITY OF HOUSTON-VICTORIA**

code 49.0102.00 (Airline / Commercial / Professional Pilot and Flight Crew); demonstrating that there is a significant gap between the market demand and current supply.

Program Duplication

The Texas Higher Education Coordinating Board Program Inventory indicates that there are eight programs with bachelor's degrees awarded in Texas that share the same CIP code with the Aviation Science program at UHV **(49.0101.00/49.0102.00)**.

1. Angelo State University: Commercial Aviation
2. Baylor University: Aviation Sciences
3. LeTourneau University: Aviation Management – Flight Concentration
4. Schreiner University: Aviation
5. Stephen F. Austin State University: Aviation
6. Texas A&M University – Central Texas: Aviation Science – Professional Pilot
7. Texas Woman's University: Aviation
8. University of North Texas: Aviation Logistics

There are also six related programs (with a different CIP code) in Texas.

1. Grayson College: Associate degree in Aviation/Airway Management and Operations (CIP code: 49.0104.00)
2. Baylor University: Bachelor's degree in Aviation Administration (CIP code: 49.0104.00)
3. LeTourneau University: Bachelor's degree in Aeronautical Science – Management Concentration (CIP code: 49.0104.00)
4. LeTourneau University: Associate degree in Aviation Management – Flight Concentration (CIP code: 49.0101.00)
5. Texas A&M University – Central Texas: Bachelor's degree in Aviation Science – Aviation Management (CIP code: 49.0104.00)
6. Texas Southern University: Bachelor's degree in Aviation Science Management (CIP code: 49.0104.00)

Faculty Resources

Dr. Jiansen Wang (Ph.D., Technology; Department of Aviation) was recruited by UHV in September 2024. His major role includes program structure and curriculum design, teaching, and research in the aviation program. The tentative hiring plan for the Aviation Science program is to recruit another faculty with a Ph.D. degree in related fields and a focus on aviation by Fall 2027, as the initial cohort of students will transition to upper division and additional teaching resources may be needed. UHV will be partnering with a commercial flight school to provide the ground school and in-flight training required for the various pilot certifications embedded within the degree.

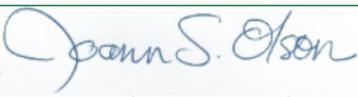
State or National Need

The proposed B.S. in Aviation Science provides accessibility to students with interests in aviation to develop their knowledge and skills and prepare for a successful career. The program aims at promoting student competency and excellence through a structured course sequence, comprehensive knowledge and topics covered, and academic research opportunities. The

**BACHELOR OF SCIENCE IN AVIATION SCIENCE
UNIVERSITY OF HOUSTON-VICTORIA**

program will address the shortage of a qualified workforce for pilots and other aviation-related positions at the state and national level through training and graduating competent pilots and professional aviation management personnel.

PRO FORMA FOR BS in Aviation Science

FY2026				Operating Years					
		Year 0	FY2026	FY2027	FY2028	FY2029	FY2030		
			Fall25	Fall26	Fall27	Fall28	Fall29		
Enrollments									
Cohort 1			12	11	9	8			
Cohort 2				15	14	12		10	
Cohort 3					18	16		14	
Cohort 4						21		18	
Cohort 5								24	
Cohort 6									
Total			12	26	41	57		66	
Expenses									
Faculty (9 month)									
	Salary	% effort	Year 0	FY2026	FY2027	FY2028	FY2029	FY2030	
Wang	80,000	100%		80,000	81,600	83,232	84,897	86,595	
Faculty member to be hired	80,000	100%		-	-	80,000	81,600	83,232	
Position 3				-	-	-	-	-	
Position 4				-	-	-	-	-	
Position 5				-	-	-	-	-	
Position 6				-	-	-	-	-	
Adjuncts				-	-	-	-	-	
Subtotal	160,000	200%	-	80,000	81,600	163,232	166,497	169,827	
Faculty FTE									
				1.00	1.00	2.00	2.00	2.00	
Staff (12 month)									
Position 1--college-level shared administrative support	40,000	25%		10,000	10,200	10,404	10,612	10,824	
Position 2--operations manager (funded by state aviation allocation)	80,000	100%		80,000	81,600	83,232	84,897	86,595	
Position 3				-	-	-	-	-	
Position 4				-	-	-	-	-	
Position 5				-	-	-	-	-	
Position 6				-	-	-	-	-	
Graduate Students				-	-	-	-	-	
Subtotal	120,000	125%	-	90,000	91,800	93,636	95,509	97,419	
Staff FTE									
				1.25	1.25	1.25	1.25	1.25	
Total Salaries			-	170,000	173,400	256,868	262,005	267,245	
Benefits @ 20.5%			-	34,850	35,547	52,658	53,711	54,785	
Total Personnel			-	204,850	208,947	309,526	315,716	322,031	
Non-Personnel									
Marketing/Recruiting				5,000	4,000	2,000	2,000	2,000	
Scholarships & Tuition Assistantships					-	-	-	-	
Annual maintenance & operations				1,000	1,000	1,000	1,000	1,000	
Library and Information Technology				1,000	1,000	1,000	1,000	1,000	
Accreditation				-	-	1,565	1,565	20,000	
Facilities				-	-	-	-	-	
Laboratory and other equipment				3,000	3,000	3,000	3,000	3,000	
Other				-	-	-	-	-	
Total Non-Personnel			-	10,000	9,000	8,565	8,565	27,000	
Allocated to university operations		10%		6,824	14,785	27,154	36,253	46,435	
Total Annual Expense			\$ -	\$ 221,674	\$ 232,732	\$ 345,245	\$ 360,534	\$ 395,465	
Revenue									
Formula Funding Generated				-	-	73,193	73,193	169,732	
Statutory Tuition Applied to Formula				-	-	(34,800)	(34,800)	(80,700)	
Subtotal: State General Revenue				-	-	38,393	38,393	89,032	
UH Tuition and Fees				76,658	166,093	261,916	364,127	421,621	
Allocated to set aside per student				(8,420)	(18,243)	(28,767)	(39,993)	(46,308)	
Total Revenue from Enrollment				68,239	147,851	271,542	362,527	464,345	
Existing College Resources from grant as per narrative				204,850	208,947	-	-	-	
Net Revenue				273,089	356,798	271,542	362,527	464,345	
Net Annual Gain/(Loss)			-	\$ 51,415	\$ 124,066	\$ (73,703)	\$ 1,993	\$ 68,880	
Cumulative Gain/(Loss)			-	\$ 51,415	\$ 175,480	\$ 101,777	\$ 103,770	\$ 172,650	
Campus Signoff							Date:	10/15/2024	
Daniel Chang, Program Director, Office of the Provost Signature:				_____			Date:	_____	
Vivianne Do, Executive Director, Office of the Provost Signature:				_____			Date:	_____	

BACHELOR OF ARTS IN GRAPHIC DESIGN
UNIVERSITY OF HOUSTON-VICTORIA

Congruence with System Goals and University Mission

The proposed Bachelor of Arts in Graphic Design will advance University of Houston System goals by educating professionals in graphic design who will be able to take their skills and talents into a competitive marketplace. Given the University of Houston-Victoria's (UHV) specific mission to serve the region, this program will be particularly important as it will educate students in a growing and dynamic field. As the proposed program is growing out of a communication design program (that is being discontinued), there are many university resources as well as community partnerships already in place to advance both student needs and integrate the university into the cultural and professional life of the region.

Note: UHV's current communication design program is being closed due to low graduation numbers, as dictated by THECB policy. Reorganizing existing resources into a renewed and updated graphic design program, shifting focus away from print-based design to digital design and user experience/UX, will attract more students into a successful program. The proposal to start a graphic design program is in this context. Given existing studio space as well as computers equipped with industry standard programs and tools, the development of this new program requires relatively few new resources and stands to give significant benefit to UHV.

Program Description

The B.A. in Graphic Design is 120 semester credit hours and will prepare students with the skills and knowledge necessary to use visual media to communicate different ideas in a global and diverse world. This program prepares students for careers in design, digital communication, print communications, marketing, public relations, advertising, and other fields that use visual media for effective communication. Student learning outcomes include:

- Analyze, synthesize, and utilize design processes and strategy from concept to delivery to creatively solve communication problems.
- Create communication solutions that address audiences and contexts, by recognizing the human factors that determine design decisions.
- Utilize relevant applications of tools and technology in the creation, reproduction, and distribution of visual messages.
- Apply graphic design principles in the ideation, development, and production of visual messages.

The proposed B.A. in Graphic Design trains students for the field where students learn to analyze, synthesize, and utilize tools from art, communication, and technology and apply what they have learned in the development of and production of visual messaging. Job prospects for graduates with these skills are very good and students can enter careers in design, marketing, and other fields where communication skills are key to success.

Student and Job Market Demand

According to the U.S. Bureau of Labor Statistics (BLS), the mean hourly wage of graphic designers is \$28.32 per hour, or a median annual wage of \$58,910. The BLS indicates there were 270,900 graphic designer jobs in 2022, with a projected job growth outlook of 3% or "as fast as average". A search of Texas Workforce Commission projections indicates that 2,871 graphic designers will be needed in the Austin area by 2031, while MyTexasFuture.org indicates a projected growth of 10.3% for graphic designers across the state, with a median salary of \$47,557.

BACHELOR OF ARTS IN GRAPHIC DESIGN
UNIVERSITY OF HOUSTON-VICTORIA

The proposed program is a replacement for UHV's B.A. in Communication Design program. Although the graduation rate of the previous program had fallen below THECB's threshold for low-producing programs, necessitating that the program be closed, there was steady (albeit insufficient) enrollment. The proposed B.A. in graphic design is structured to incorporate new methods and technologies to best prepare students for working in current design and online environments. The steady enrollment in the previous program, in combination with the updated curriculum, indicates that there will be student demand for the program.

Program Duplication

According to the Texas Higher Education Coordinating Board Program Inventory, there are several programs designated as a B.A. in Graphic Design (St. Edward's University, Wayland Baptist University, Texas A&M-Corpus Christi). A few are B.A./B.S. in Art with a Graphic Design emphasis (Dallas Baptist University, UT-Permian Basin). Many of the graphic design programs grant a B.F.A. credential: B.F.A. in Graphic Design (e.g., Houston Christin University, Sam Houston State University, University of Houston, West Texas A&M University), B.F.A. in Visual Communication (Texas A&M-Commerce, UTRGV), and B.F.A. in Art and Design with a Graphic Design Emphasis (UH-Clear Lake, University of Mary Hardin-Baylor).

Faculty Resources

Kevin Auer (M.F.A., Graphic Design) has been a Lecturer at the University of Houston-Victoria since September 2018. His primary teaching assignments have been in the Communication Design program, which is now being closed. He will transition to Lecturer of Graphic Design. Jia Liu (M.F.A., Set Design) was hired as Assistant Professor of Graphic Design in September 2023. Her teaching assignments will be with the program. Qualified adjuncts will be utilized as course loads and student enrollment requires, and a third faculty member added when financially and academically viable.

State or National Need

With the proliferation of digital media and communication streams, the skills gained in a program like UHV's Graphic Design program are increasingly in demand across many markets, to increase visibility and accessibility to all audiences. The B.A. in Graphic Design allows students interested in both the artistic and the technical to develop those skills and prepare for meaningful contributions in various industries and locations.

PRO FORMA FOR BA in Graphic Design

		Operating Years						
FY2026		Year 0	FY2026	FY2027	FY2028	FY2029	FY2030	
			Fall25	Fall26	Fall27	Fall28	Fall29	
Enrollments								
Cohort 1			10	9	7	7		
Cohort 2				10	9	7	7	
Cohort 3					15	13	10	
Cohort 4						15	13	
Cohort 5							15	
Cohort 6								
Total			10	19	31	42	45	
Expenses								
Faculty (9 month)								
	Salary	% effort	Year 0	FY2026	FY2027	FY2028	FY2029	FY2030
Liu	60,000	100%		60,000	61,200	62,424	63,672	64,946
Auer	56,149	75%		42,112	42,954	43,813	44,689	45,583
Position 3				-	-	-	-	-
Position 4				-	-	-	-	-
Position 5				-	-	-	-	-
Position 6				-	-	-	-	-
Adjuncts				-	-	-	-	-
Subtotal	116,149	175%	-	102,112	104,154	106,237	108,362	110,529
Faculty FTE								
				1.75	1.75	1.75	1.75	1.75
Staff (12 month)								
Position 1--college-level shared administrative support	40,000	5%		2,000	2,040	2,081	2,122	2,165
Position 2				-	-	-	-	-
Position 3				-	-	-	-	-
Position 4				-	-	-	-	-
Position 5				-	-	-	-	-
Position 6				-	-	-	-	-
Graduate Students				-	-	-	-	-
Subtotal	40,000	5%	-	2,000	2,040	2,081	2,122	2,165
Staff FTE								
				0.05	0.05	0.05	0.05	0.05
Total Personnel								
Total Salaries			-	104,112	106,194	108,318	110,484	112,694
Benefits @ 20.5%			-	21,343	21,770	22,205	22,649	23,102
Total Personnel			-	125,455	127,964	130,523	133,133	135,796
Non-Personnel								
Marketing/Recruiting				5,000	4,000	2,000	2,000	2,000
Scholarships & Tuition Assistantships					-	-	-	-
Annual maintenance & operations				1,000	1,000	1,000	1,000	1,000
Library and Information Technology				1,000	1,000	1,000	1,000	1,000
Accreditation				-	-	-	-	-
Facilities				-	-	-	-	-
Laboratory and other equipment				3,000	3,000	3,000	3,000	3,000
Other				-	-	-	-	-
Total Non-Personnel				10,000	9,000	7,000	7,000	7,000
Allocated to university operations	10%			5,687	10,804	19,225	25,480	29,284
Total Annual Expense			\$ -	\$ 141,141	\$ 147,768	\$ 156,748	\$ 165,614	\$ 172,080
Revenue								
Formula Funding Generated				-	-	41,765	41,765	96,642
Statutory Tuition Applied to Formula				-	-	(25,800)	(25,800)	(59,700)
Subtotal: State General Revenue				-	-	15,965	15,965	36,942
UH Tuition and Fees				63,882	121,376	198,034	268,304	287,469
Allocated to set aside per student				(7,016)	(13,331)	(21,751)	(29,469)	(31,574)
Total Revenue from Enrollment				56,866	108,045	192,248	254,800	292,837
Philanthropy and other External Revenue				-	-	-	-	-
Net Revenue				56,866	108,045	192,248	254,800	292,837
Net Annual Gain/(Loss)								
			-	\$ (84,276)	\$ (39,724)	\$ 35,500	\$ 89,187	\$ 120,757
Cumulative Gain/(Loss)								
			-	\$ (84,276)	\$ (123,999)	\$ (88,499)	\$ 688	\$ 121,445

Campus Signoff

Joann S. Olson

Date: _____

Daniel Chang, Program Director, Office of the Provost Signature: _____

Date: _____

Vivianne Do, Executive Director, Office of the Provost Signature: _____

Date: _____

DOCTOR OF PHILOSOPHY IN STATISTICS AND DATA SCIENCE

UNIVERSITY OF HOUSTON

Congruence with System Goals and University Mission

The proposed Ph.D. in Statistics and Data Science aligns with the University of Houston (UH) System Goals and University Mission on student success and community advancement by addressing the growing demand in this field and adding a vital component in the institution's current offerings in degree programs.

With the increasing importance of big data in many scientific disciplines, particularly in biomedical and public health, this program aims to equip students with cutting-edge statistical and data science techniques. By providing the necessary skills and training to analyze and interpret large datasets, it will prepare them for successful careers in various industries and contribute to the advancement of scientific research.

This program will not only benefit students but also the community at large, as graduates will be able to contribute to the socioeconomic development of the greater Houston region. In offering a rigorous doctoral program, UH will establish itself as a leader in statistical and data science. This will enhance the university's national competitiveness, attracting top faculty and students to the institution, and further strengthening its reputation for research.

Program Description

The Ph.D. in Statistics and Data Science program consists of 71 semester credit hours to be completed over five years. It is designed for students who have completed undergraduate or master's level training in statistics or mathematics and are prepared to undertake doctoral research in statistics and data science. The program provides training in statistical theory, data analysis, and computing, with a focus on modern statistical methods for big data. Students will develop expertise in areas such as machine learning, data mining, Bayesian statistics, and statistical computing, and will have the opportunity to apply these skills to real-world situations.

The program emphasizes both theoretical and applied aspects of statistics and data science, with a focus on interdisciplinary collaboration and the development of innovative solutions to complex problems. Graduates of the program will be well-equipped to pursue careers as statisticians, data scientists, or faculty members in academic institutions.

Student and Job Market Demand

There is both short-term and long-term evidence of student demand for a Ph.D. degree program in Statistics and Data Science. According to data from the National Science Foundation (NSF), the number of students receiving a Ph.D. in Statistics increased by 49% from 2018 to 2021. Similarly, students receiving a Ph.D. in the new fields of Data Science and Data Analytics or in Data Mining and Machine Learning increased by 300% from 2021 to 2022. Enrollment in Ph.D. programs in Mathematics and Statistics has also increased by 4% from 2017 to 2021, and the number of students enrolled in Ph.D. programs in data science increased by 10% from 2021 to 2022. The Department of Mathematics receives numerous inquiries from the local Houston community and from students abroad concerning the availability of a Ph.D. degree in Statistics and Data Science.

There is strong evidence that the job market for Ph.D. graduates in statistics and data science is robust. According to the U.S. Bureau of Labor Statistics (BLS), employment of statisticians is

DOCTOR OF PHILOSOPHY IN STATISTICS AND DATA SCIENCE

UNIVERSITY OF HOUSTON

projected to grow 32% from 2022 to 2032, much faster than the average for all occupations. Similarly, projects that the employment of data scientists will grow by 35% from 2022 to 2032. Additionally, there were over 35,000 job openings for mathematicians and statisticians in the United States in 2022 and over 160,000 job openings for data scientists in the same period.

Employers are also willing to pay a premium for workers with advanced degrees in statistics and data science. The National Association of Colleges and Employers states that the median starting salary for Ph.D. graduates in mathematics and statistics was \$110,000 in 2023, compared to \$84,000 for those with a master's degree and \$70,000 for those with a bachelor's degree.

Program Duplication

The proposed Ph.D. program in statistics and data science is unique to the UH system and is not offered by any other UH campus. However, there are a few other institutions in Houston and surrounding regions that offer related programs.

Rice University offers a small Ph.D. program in statistics, which focuses on theoretical and applied statistics. UT Health in Houston offers a Ph.D. program in biostatistics only, which prepares students to apply statistical methods in health-related fields. MD Anderson offers a degree working jointly with UT Health and Rice as a collaborative doctoral program in biostatistics.

Outside of Houston, several universities in Texas offer Ph.D. programs in statistics, including UT Austin, Texas A&M University, UT Dallas, Southern Methodist University, UT San Antonio (Applied Statistics in business school), and Texas Tech University. These programs cover a range of statistical topics and specializations, from theoretical to applied statistics. While there are some similarities between the proposed Ph.D. program at UH and other programs in Texas, the program's focus on data science sets it apart. The proposed program emphasizes the application of statistical methods to real-world problems and provides unique opportunities and experiences for students seeking to specialize in this field.

Faculty Resources

The Department of Mathematics is well-equipped with the faculty and resources to offer a successful doctoral program in Statistics and Data Science. The department currently has six faculty members with Ph.Ds. in statistics, including two tenured Full Professors of Statistics and two tenure track Assistant Professors of Statistics. Additionally, the department has two Instructional Professors of Statistics who are heavily involved in the M.S. in Statistics and Data Science program. The department also has five faculty members with research interests in applied statistics who have all taught graduate level courses in statistics and data science for several years, including Probability, Statistics, Applied Statistics and Multivariate Analysis, Automatic Learning and Data Mining, Deep Learning and Artificial Neural Networks, Mathematics of Machine Learning, Spatial Statistics, and Time-Series Analysis, which provide a comprehensive and well-rounded set of course offerings for a doctoral program in this discipline.

State or National Need

The proposed Ph.D. program in Statistics and Data Science aligns with the state and national need for highly trained professionals in these fields. Houston is a global hub for the Oil and Gas

DOCTOR OF PHILOSOPHY IN STATISTICS AND DATA SCIENCE
UNIVERSITY OF HOUSTON

Industry, which relies heavily on the services of statisticians and data scientists. Conoco Phillips has recognized this need and has provided financial support for the M.S. in Statistics and Data Science program in the Department of Mathematics to train statisticians for its workforce. The Houston Medical Center, one of the largest medical centers in the world, also has a great need for highly trained statisticians and data scientists to interpret medical data and develop efficient algorithms to aid medical research and decision making. The proximity of the medical center further strengthens the need for doctoral level statisticians and data scientists in the region. Texas, particularly the triangle formed by Houston, Austin, and Dallas, is rapidly developing as a high-tech area on a national level, with a clear need for doctoral level statisticians and data scientists to handle the enormous amount of data generated in industries such as energy, health, financial, and manufacturing industries.

PRO FORMA FOR PHD in Statistics and Data Science

		FY2027		Operating Years					
		Year 0	FY2027	FY2028	FY2029	FY2030	FY2031		
			Fall26	Fall27	Fall28	Fall29	Fall30		
Enrollments									
Cohort 1			5	5	4	4	4		
Cohort 2				5	5	5	4		
Cohort 3					5	5	5		
Cohort 4						7	6		
Cohort 5							8		
Cohort 6									
Total			5	10	14	21	27		
Expenses									
Faculty (9 month)		Salary	% effort	Year 0	FY2027	FY2028	FY2029	FY2030	FY2031
Mikyoung Jun		199,515	10%		19,952	20,351	20,758	21,173	21,596
Wenjiang Fu		152,599	10%		-	15,260	15,565	15,876	16,194
Yabo Niu		112,090	10%		-	-	11,209	11,433	11,662
Jian Cao		110,000	10%		-	-	-	11,000	11,000
Robert Azencott		197,225	10%		-	-	-	-	19,723
Hyeongseon Jeon		110,000	10%		-	-	-	11,000	11,220
Kresimic Josic		170,733	5%		-	-	-	-	8,537
Demetrio Labate		143,107	5%		7,155	7,298	7,444	7,593	7,745
Matthew Nicol		156,732	5%		-	7,837	7,994	8,154	8,317
Ilya Timofeyev		133,705	5%		6,685	6,819	6,955	7,094	7,236
Position 11					-	-	-	-	-
Position 12					-	-	-	-	-
Position 13					-	-	-	-	-
Position 14					-	-	-	-	-
Position 15					-	-	-	-	-
Adjuncts					-	-	-	-	-
Subtotal		1,485,706	80%	-	33,792	57,565	69,925	93,324	123,230
Faculty FTE					0.20	0.35	0.45	0.65	0.80
Staff (12 month)									
Position 1		54,652	50%		27,326	27,872	28,430	28,999	29,579
Position 2					-	-	-	-	-
Position 3					-	-	-	-	-
Position 4					-	-	-	-	-
Position 5					-	-	-	-	-
Position 6					-	-	-	-	-
Graduate Students					-	-	-	-	-
Subtotal		54,652	50%	-	27,326	27,872	28,430	28,999	29,579
Staff FTE					0.50	0.50	0.50	0.50	0.50
Total Salaries				-	61,118	85,437	98,355	122,322	152,808
Benefits @ 20.5%				-	12,529	17,515	20,163	25,076	31,326
Total Personnel				-	73,647	102,952	118,518	147,398	184,134
Non-Personnel									
Marketing/Recruiting				2,000	1,000	1,000	1,000	1,000	1,000
Scholarships & Tuition Assistantships				-	-	-	-	-	-
Annual maintenance & operations				7,500	7,500	7,500	7,500	7,500	7,500
Library and Information Technology				-	-	-	-	-	-
Accreditation				-	-	-	-	-	-
Facilities				-	-	-	-	-	-
Laboratory and other equipment				-	-	-	-	-	-
Other				-	-	-	-	-	-
Total Non-Personnel				9,500	8,500	8,500	8,500	8,500	8,500
Allocated to university operations		10%			2,258	11,922	13,729	32,814	35,523
Total Annual Expense				\$ 9,500	\$ 84,405	\$ 123,374	\$ 140,747	\$ 188,712	\$ 228,157
Revenue									
Formula Funding Generated					-	77,064	77,064	242,751	242,751
Statutory Tuition Applied to Formula					-	(3,000)	(3,000)	(9,450)	(9,450)
Subtotal: State General Revenue					-	74,064	74,064	233,301	233,301
UH Tuition and Fees					23,547	47,094	65,932	98,897	127,154
Allocated to set aside per student					(967)	(1,935)	(2,709)	(4,063)	(5,224)
Total Revenue from Enrollment					22,580	119,223	137,287	328,136	355,231
Philanthropy and other External Revenue					-	-	-	-	-
Net Revenue					22,580	119,223	137,287	328,136	355,231
Net Annual Gain/(Loss)				(9,500)	\$ (61,826)	\$ (4,151)	\$ (3,460)	\$ 139,424	\$ 127,074
Cumulative Gain/(Loss)				(9,500)	\$ (71,326)	\$ (75,477)	\$ (78,936)	\$ 60,488	\$ 187,562

College Business Administrator Signature: _____ Date: _____
 Daniel Chang, Program Director, Office of the Provost Signature: _____ Date: _____
 Vivianne Do, Executive Director, Office of the Provost Signature: _____ Date: _____

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Approval is requested for the University of Houston System Board of Regents Academic, Research, and Student Success Committee Charter

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Per UH System Board of Regents Bylaws 5.2.1, the charters of the standing committees should be reviewed by the committee annually and updated as necessary subject to approval by the Board.

SUPPORTING DOCUMENTATION:

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Administration recommends approval of this item

COMPONENT: University of Houston System



SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE



CHANCELLOR

Renu Khator

11/15/24

DATE

Academic, Research, and Student Success Committee

Charter: The Academic, Research, and Student Success committee has oversight of instruction, research, and service policy and performance, including review of the Chancellor's recommendations on academic programs. It also has oversight of all matters related to student success, including academic, research, and student support programs.

More specifically, the committee shall:

- (a) review and recommend approval of the role and mission of the system and its universities;
- (b) review and recommend approval of the academic organization of the universities at the college /school level;
- (c) review and recommend approval of major academic policies; proposed new or major changes in academic programs; and provide oversight of academic program reviews;
- (d) review and recommend approval of campus admissions policies and major policies pertaining to students, student activities, and student organizations;
- (e) monitor student success indices and review and approve programs aimed at increasing retention and graduation rates and student satisfaction;
- (f) review the research agenda and priorities and review and accept reports on research contracts and grants;
- (g) review and accept reports on the service mission, including academically related activities in community engagement;
- (h) review and recommend approval on matters concerning the library, technology, intellectual property, and emerging issues;
- (i) review and recommend approval of certain academic personnel actions; and
- (j) consider and make recommendation on any other matters that arise concerning academic and student success.

(k) Review and recommend approval of the Academic, Research, and Student Success Committee Charter annually, as listed in the Board Planner

(I) Review and recommend approval of the UH System Faculty Workload Report annually, as listed in the Board Planner

(11/16/23)

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Presentation of Low Producing Programs Report and Approval of Program Closure – University of Houston System

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

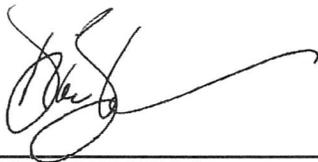
Presentation of report on programs identified as low producing and approval of program closure at University of Houston System institutions.

SUPPORTING DOCUMENTATION: Report

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Administration recommends approval of this item

COMPONENT: University of Houston System



SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE



CHANCELLOR

Renu Khator

11/15/24

DATE

**LOW-PRODUCING PROGRAMS REPORT
UNIVERSITY OF HOUSTON SYSTEM**

Low Producing Programs in 2024

Institution	Program	Recommendation
University of Houston	MA Architectural Studies	Continue monitoring status
University of Houston-Victoria	BA Communication Design	Discontinue (to be closed 05/31/2026)

Academic and Student Success Committee

November 21, 2024

**University of Houston System
Degree Program Closure**

Institutions requesting to close a degree program must:

- a) develop and execute a teach-out plan;
- b) give appropriate notification to the federally recognized institutional accreditor and the program's accreditor, as applicable;
- c) cease to admit new students to the program;
- d) ensure that all courses necessary to complete the program are offered on a timely basis;
and
- e) close the program when the last student enrolled in the program has graduated or the teach-out period has lapsed.

Institution: University of Houston - Victoria

Proposed effective date of change: 1/1/2025

Degree Level: Bachelor's

Degree Designation and Title: Bachelor of Arts in Communication Design

Administrative Unit: College of Liberal Arts and Social Sciences

Last date students were/will be admitted to the program: 1/1/2025

Degree program closure date: 5/31/2026

Summary

The University of Houston-Victoria will be closing the program BA in Communication Design. Students will no longer be admitted for this degree plan beginning on January 1, 2025.

The BA in Communication Design program focused on design principles related to book arts-typesetting, printing, binding, publishing, etc. The program is being closed because of attrition in faculty who had taught in a graduate program in publishing and the loss of two artisanal presses in recent years. The university no longer has the auxiliary support for an undergraduate program focused solely on book arts and declining enrollment in the program suggests that students are looking for a program more closely aligned with contemporary, digital design tools and skills. Consequently, the university is exploring the possibilities of offering a more traditional graphic design program, with an emphasis on computer-generated design. This new program would create opportunities for collaboration with faculty and students in UHV's BS in Digital Gaming and Simulation program, as well as students who are interested in more contemporary arts and design. We recognize that any new program, such as described here, would fall under its own substantive change process.

The decision to close the BA in Communication Design and build a BA in Graphic Design was made by the faculty in the Multidisciplinary Department with support from the Associate Dean and Interim Dean of the College of Liberal Arts and Sciences.

Teach Out Plan—Students

- Students who have been admitted into the program will have a pathway of classes provided by our current faculty suitable to complete all the communication design program within four years after this academic year.
- The attached teach out plan highlights several required courses (DSGN 4312, DSGN 4316, DSGN 4320) where few of the actively matriculating students have met the requirement. In these cases, the academic advisor has worked with faculty in the program to identify "standing" substitutions (DSGN 4300 For DSGN 4312; DSGN 3325 for DSGN 4316; DSGN 3332 for DSGN 4320) to enable students to meet degree requirements.
- Our graphic design minor will remain in place which can be used to supplement course offerings for students as we close out the communication design program.
- Most design classes will continue to be offered as part of a graphic design concentration in the Bachelor of Applied Arts and Sciences program and the graphic design program that is currently being developed. We anticipate little disruption in student progress, given that most design and all art classes will still be offered.
- Due to the in-progress development of the graphic design program, we anticipate little impact on students.
- In some cases, ARTS 4302: Independent study will be utilized as a substitution. Faculty is in place to cover these offerings.

Courses will continue to be offered to students who are already in the program until the students have either graduated or failed to enroll for at least three semesters, as outlined in the policy pertaining to continuous enrollment in the Academic Catalog. Students who stop out for more than one year will be welcome to reenroll in another program (potentially the in-development graphic design program), and relevant classes from the closed BA in Communication Design program may be applied to the new program, to minimize the disruption to those students.

The teach-out will create no additional cost to students in the program. UHV will not be entering into an agreement with another institution for the teach-out of the program.

Communication plan-students: Before the close of registration for the Fall 2024 semester, academic advisors will contact the students in the program, informing them of the closure and providing a degree map/timeline for completion of degree requirements. Students who have been inactive for more than 13 months are discontinued, per UHV policy, and would need to reenroll under the current catalog at the time of reenrollment (which will not contain the BA-Communication Design); in this case, students will be directed to other, related degrees such as the Bachelor of Applied Arts and Sciences (graphic design concentration) or the in-development BA in Graphic Design.

Communication plan-faculty and staff: The Interim Provost will announce the program closure during regular meeting(s) of the Executive Committee and President's cabinet. These announcements will include the offer to meet with relevant admissions/recruiting or marketing staff members. The Interim Dean of the College of Liberal Arts and Social Sciences will work with Marketing and Communications to ensure that relevant web pages and social media sites are updated appropriately.

Communication plan-community partners: This program does not maintain close ties to community partners that would be impacted by the program closure.

Redeployment of Faculty

There will be no disruption to existing faculty and staff. There are no administrative staff connected to the closing program.

A tenure track faculty member, Dr. Jia Liu, will lead the development of the emerging graphic design program as well as oversee the teach-out of the existing program. A full-time lecturer, Mr. Kevin Auer, will also continue to teach typography, book arts, and introductory design classes, as appropriate to his training and expertise; Mr. Auer also carries credentials in history and may be assigned to history classes to meet instructional needs within the institution. No reductions in faculty are anticipated. Our current faculty will be able to offer the required number of classes as we develop a graphic design program that will utilize the faculty and infrastructure we currently have dedicated to communication design, such as studio space and computer labs.

Staff, Facilities, and Infrastructure

We are planning on developing a graphic design program that will include design elements to retain some of the current courses, the studio space, and the faculty of the communication design program. The BA in Communication Design program has a few presses, typesets, and other capital assets. These materials will continue to be used for courses in historical design methods in the potential new graphic design program. No staff or administrative assistants are assigned to the program, and we anticipate no interruptions in that regard. Studios and computer labs will continue to be used for the graphic design minor as well as the new graphic design program. No anticipated budgetary impact is anticipated due to maintaining the existing minor and providing coverage for core curriculum needs.

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Report on Sponsored Contracts and Grants over \$1M – University of Houston System

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

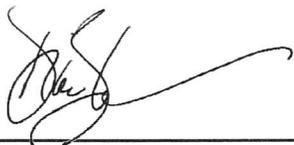
Dr. Claudia Neuhauser, Vice Chancellor for Research, will provide a report on sponsored contracts and grants over \$1M and highlight additional grants at the system institutions.

SUPPORTING DOCUMENTATION: Presentation

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Information

COMPONENT: University of Houston System



SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE



CHANCELLOR

Renu Khator

11/15/24

DATE

Annual Report on Awards Over \$1 Million

Claudia Neuhauser, PhD
VC/VP for Research
November 2024

Awards During FY20-24

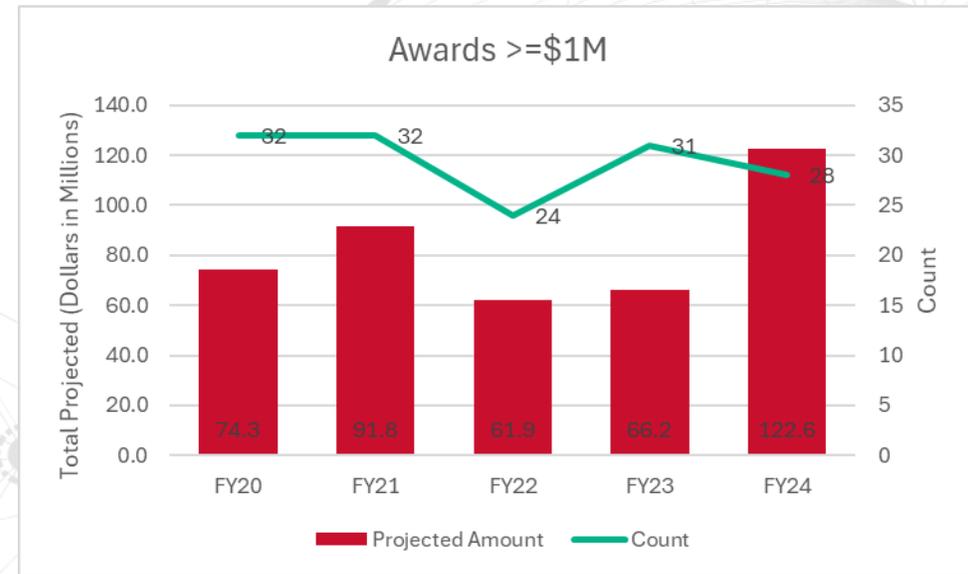
- During FY 20-24, UH received 1,873 awards for a total of \$750.8 Million
- 80% of total projected award amounts and total number of proposals came from 6 colleges
 - Engineering
 - Natural Sciences & Mathematics
 - Liberal Arts & Social Sciences
 - Pharmacy
 - Optometry
 - Education

Primary Federal Funding Agencies (FY 20-24)

	Count	Total Projected	Per
HHS	360	238,960,924	31.8%
DOD	87	118,437,648	15.8%
NSF	296	114,759,987	15.3%
DOE	85	42,406,154	5.6%
DOEd	30	32,456,646	4.3%

Awards Over \$1 Million During FY20-24

- During FY 20-24, UH received 147 awards over \$1M
 - Total projected award amounts: \$416.8 M
 - Average projected award amount: \$2.83 M
- In FY 24: 28 awards; total of \$122.6 M
- The largest award in FY 24:
 - Dr. Craig Glennie
 - U.S. Department of the Army
 - Priority analysis capabilities for competition, crisis, and combat (pac4)
 - \$63.5 Million



— UH FY24 Highlights

- Top Colleges
 - Engineering (7): \$74.8 M
 - NSM (6): \$12.9 M
 - Optometry (3): \$9.29 M
 - CLASS (3): \$6.28 M
 - Pharmacy (3): \$3.94 M
- A sample
 - **Dr. Rohita Reddy (Engineering):** Improving the accuracy of lupus nephritis diagnosis using biomarkers derived from ultraviolet and mid-infrared spectroscopic imaging (\$3.2 M; NIH)
 - **Dr. Jeannette Alarcon (Education):** UH teacher preparation TQP 2022 (\$3.4 M; DOEd)
 - **Dr. Wendy Harrison (Optometry):** Characterizing ocular structures and local retinal function in the progression of different objective phenotypes of prediabetes and type 2 diabetes (\$3.3 M; NIH)
 - **Dr. Clayton Neighbors (CLASS):** Evaluating telehealth delivery of brief alcohol screening and intervention for college students (\$3.2 M, NIH)
 - **Dr. Weiyi Peng (NSM):** Thor: targeted hybrid oncotherapeutic regulation (\$2.1 M; ARPA-H→Rice U., \$45 M; consortium of 8 universities and 2 private industry partners)
 - **Dr. Venkat Selvamanickam (Engineering):** Low-cost, high-rate fabrication of high-performance, uniform, long rebco conductors (\$2.0 M; ARPA-E)

UHD FY24 Highlights

- The **NSF REU in Computational Sciences and Engineering** is led by Professor Vassilios Tzouanas.
- The project seeks to increase and solidify the interest and proficiency in STEM among rising sophomore, junior, and senior undergraduate students.
- The program provides active research engagement in the pursuit of new knowledge and solutions to important societal challenges.
- Students will get direct, hands-on experience in research projects that focus on computational sciences and engineering:
 - cybersecurity
 - data analytics
 - machine learning
 - process automation
 - structural engineering
 - data-driven safety management



— UHCL FY24 Highlights

- The \$2.6 Million **EXCITE: Building on Strengths, Expanding Access, and Transforming Lives** grant from the U.S. Department of Education, led by Drs. Kathy Matthew and Roberta Raymond, seeks to expand access to postsecondary education for Houston's growing population of low-income residents.
- The goal is to increase the retention and graduation of students in the Master of Arts in Teaching (MAT), Master of Science (MS) in School Counseling, and the Doctor of Education (EdD) in Curriculum and Instruction with a STEM emphasis.
- The project provides scholarships for low-income students and the scholarships.
- The grant was originally funded in 2019 for \$2.7 million.



UHV FY24 Highlights

- Dr. Hardik Gohel continues to conduct two **Minority Serving Partnerships Programs with Battelle Savannah River Alliance** with an overall award amount of \$1,013,000.
- The success of the project is exemplified by the accomplishments of the PI, research staff, and students.
 - The research results have produced four ongoing publications and 3 professional conference presentations.
 - Graduate and Undergraduate researchers have conducted 18 presentations at the Waste Management Symposia (radioactive waste).
 - Four students have secured internships at federal labs and a student was hired by Savannah River National Laboratory.



— A Glimpse into the Future

- **Dr. Bettina Beech** is the UH MPI on the \$44.2 M CTSA award with Baylor College of Medicine as the lead institution: Consortium for Translational and Precision Health (CTPH)
- **Dr. Yan Yao** is the UH PI on the \$62.5 M Argonne Collaborative Center for Energy Storage Science award with Argonne as the lead and 13 other partners
- \$4.8M National Institutes of Health Award for **Dr. Lorra Garey**: A National Test of a Culturally Tailored mHealth Integrated Smoking Cessation and Mental Health Intervention for Black Adults with HIV
- \$1.6M National Science Foundation Award for **Dr. Jerrod Henderson**: Collaborative Research: Identifying Features of Informal Engineering Programs that Foster Youths' Engineering Identities
- \$1.3M National Science Foundation Award for **Dr. Jose Luis Contreras-Vidal**: AccelNet Implementation Phase 1: Growing Convergent Research to Advance Scientific Understanding and Applications of Coupled Brain Activity, Expressive Movement and Music
- \$1.2M National Science Foundation Award for **Dr. Jerrod Henderson**: Authentic Community-Engaged Scholarship in STEM Education Postdoc Training Program

TO SERVE

We serve the research community by satisfying client requirements, ensuring research compliance, and protecting the University's intellectual and financial interests.

TO LEAD

We lead the university by managing institutional research priorities and supporting a broader view of individual and small-group research.

UH FY 24 Awards of \$1,000,000 or Greater

Award PI Name	College	Agency Name	Award Begin Date	Award End Date	Award Description	Projected Award Amount
Glennie,Craig Len	Engineering	U.S. Army Research Office	9/12/2023	9/11/2028	PRIORITY ANALYSIS CAPABILITIES FOR COMPETITION, CRISIS, AND COMBAT (PAC4)	63,500,000.00
Ali,Samira Bano	Grad College of Social Work	Gilead Sciences, Inc	1/1/2024	12/31/2026	GILEAD - COMPASS INITIATIVE SUSTAIN PHASE 3	4,000,000.00
Alarcon,Jeannette Driscoll	Education	U.S. Department of Education	10/1/2023	9/30/2028	UH TEACHER PREPARATION TQP 2022	3,356,160.00
Harrison,Wendy W	Optometry	National Eye Institute	5/1/2024	4/30/2029	CHARACTERIZING OCULAR STRUCTURES AND LOCAL RETINAL FUNCTION IN THE PROGRESSION OF DIFFERENT OBJECTIVE PHENOTYPES OF PREDIABETES AND TYPE 2 DIABETES	3,300,385.00
Lawrence,Steven K	Business Administration	U.S. Small Business Administration	1/1/2024	12/31/2025	CY2024 SMALL BUSINESS DEVELOPMENT CENTER	3,252,755.00
Neighbors,Clayton T	Liberal Arts & Social Sciences	National Institute on Alcohol Abuse and Alcoholism	8/20/2024	7/31/2029	EVALUATING TELEHEALTH DELIVERY OF BRIEF ALCOHOL SCREENING AND INTERVENTION FOR COLLEGE STUDENTS	3,200,017.00
Reddy,Rohith Krishna	Engineering	National Institutes of Health	1/1/2024	11/30/2028	IMPROVING THE ACCURACY OF LUPUS NEPHRITIS DIAGNOSIS USING BIOMARKERS DERIVED FROM ULTRAVIOLET AND MID-INFRARED SPECTROSCOPIC IMAGING	3,198,047.00
Frishman,Laura J	Optometry	National Eye Institute	9/1/2023	12/31/2027	CENTER CORE GRANT FOR VISION RESEARCH - yrs 36 - 40	3,100,000.00
Zufall,Rebecca A	Natural Sciences & Mathematics	National Science Foundation	9/1/2023	8/31/2027	RAMP: STEGG-INTERACT: SOUTHEAST TEXAS EVOLUTIONARY GENETICS AND GENOMICS INTEGRATIVE RESEARCH AND COLLABORATIVE TRAINING	2,999,247.00
Evans,Paige K	Natural Sciences & Mathematics	National Science Foundation	5/1/2024	4/30/2029	DEVELOPING STEM TEACHER LEADERS IN CULTURALLY RESPONSIVE CLASSROOM MANAGEMENT, ENGINEERING DESIGN, AND INDUCTION	2,994,298.00
Ostrin,Lisa	Optometry	National Eye Institute	9/1/2023	5/31/2027	OPTICALLY INDUCED ANISOMETROPIAS	2,886,705.00
Merchant,Fatima Aziz	Engineering	National Institutes of Health	7/1/2024	6/30/2028	CLINICAL DECISION-SUPPORT ALGORITHMS FOR INTERACTIVE DESIGN OF PATIENT-SPECIFIC BREAST MOLDS	2,653,317.00
Peng,Weiyi	Natural Sciences & Mathematics	Rice University	9/25/2023	9/24/2028	THOR: TARGETED HYBRID ONCOTHERAPEUTIC REGULATION	2,126,970.00

Award PI Name	College	Agency Name	Award Begin Date	Award End Date	Award Description	Projected Award Amount
Selvamanickam,Venkat	Engineering	Advanced Research Projects Agency-Energy	1/16/2024	1/15/2027	LOW-COST, HIGH-RATE FABRICATION OF HIGH-PERFORMANCE, UNIFORM, LONG REBCO CONDUCTORS	2,000,000.00
Meisel,Richard P	Natural Sciences & Mathematics	National Institute of Health - Office of Extramural	2/1/2024	1/31/2029	GENETIC MECHANISMS OF PHENOTYPIC VARIATION WITHIN AND AMONGST GENOTYPES, ENVIRONMENTS, AND SEXES	1,996,309.00
Beech,Bettina Marie	Chancellor/President	National Institute of Health - Office of Extramural	8/15/2024	6/30/2029	WRITE FROM THE START	1,978,317.00
Gregory,Elizabeth	Liberal Arts & Social Sciences	Harris County Department of Economic Equity and Opp	4/23/2024	12/31/2026	HARRIS COUNTY EARLY REACH CONTRACTED SLOTS PROGRAM EVALUATION	1,726,252.00
Manuel,Mariam A	Natural Sciences & Mathematics	National Science Foundation	9/1/2023	8/31/2028	ADVANCING RACIAL EQUITY FOR YOUTH IN ALTERNATIVE SCHOOLING SYSTEMS THROUGH CULTURALLY RESPONSIVE STEM PROGRAMMING	1,591,701.00
Beech,Bettina Marie	Chancellor/President	National Institutes of Health	1/1/2024	12/31/2028	OBESITY HEALTH DISPARITIES RESEARCH PRIDE (OHD PRIDE)	1,553,069.00
Hu,Ming	Pharmacy	National Institute of Dental and Craniofacial Research	9/21/2023	9/20/2025	ELUCIDATING HIGH ORAL FLUID EXPOSURE MECHANISMS OF BUPRENORPHINE TO REDUCE DENTAL CARIES	1,434,060.00
Hu,Ming	Pharmacy	Cancer Prevention and Research Institute of Texas	3/1/2024	2/29/2028	LEAD OPTIMIZATION, TARGET ENGAGEMENT AND EFFICACY STUDIES OF LOCALLY BIOAVAILABLE COX-2 INHIBITORS FOR PREVENTING COLON CANCER PROGRESSION IN FAP CHILDREN	1,400,000.00
Gorniak,Stacey	Liberal Arts & Social Sciences	National Institute on Aging	9/20/2023	8/31/2025	CORTICAL COMPLICATIONS OF PERIMENOPAUSE AND OBSTRUCTIVE SLEEP APNEA IN UNDERREPRESENTED MIDDLE-AGED WOMEN WITH TYPE 2 DIABETES	1,358,585.00
Willson,Richard	Engineering	Advanced Technology International	11/13/2023	11/1/2026	DEVELOPMENT OF NOVEL RAPID IMMUNOASSAYS FOR EMERGING TOXINS	1,352,263.40
Tedesco,Joseph W	Office of the Provost	UH-TRIP-Texas Research Incentive Program	9/1/2023	8/31/2099	TRIP MATCH 16 - ENGINEERING - CULLEN FOUNDATION (Replacing Award 000177817 / Project C112364)	1,245,667.00
Vicens,Quentin	Natural Sciences & Mathematics	National Institute of General Medical Sciences	9/26/2023	6/30/2027	MOLECULAR RECOGNITION BY ADAR1 OF Z-RNA WITHIN TRANSCRIPTOMES	1,169,262.00
Trivedi PhD,Meghana	Pharmacy	U.S. Department of Defense	1/1/2024	12/31/2026	INVESTIGATING NEBIVOLOL IN TRIPLE-NEGATIVE BREAST CANCER	1,101,841.00
Zhu,Weihsang	Engineering	U.S. Department of Education	1/1/2024	12/31/2026	DEVELOPING SYSTEM MODELING AND SIMULATION-BASED PROGRAMS AT THE UNIVERSITY OF HOUSTON	1,074,876.00
Fernandez Diaz,Juan Carlos	Engineering	National Science Foundation	8/15/2024	7/31/2026	COLLABORATIVE RESEARCH: CENTER: CFS (TRACK III) SUPPORT FOR OPERATION OF THE NATIONAL CENTER FOR AIRBORNE LASER MAPPING (NCALM)	1,062,651.00

UHD FY 24 Awards of \$1,000,000 or Greater

Award PI Name	College	Agency Name	Award Begin Date	Award End Date	Award Description	Projected Award Amount
Janina Arrington	UHD	Georgia State University Research Foundation, Inc. through the National Institute of Student Success; Prime: The Charles and Lynn Schusterman Family Foundation	11/1/2023	10/31/2025	NISS Acceleration Grant	1,000,000

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Research Presentation – University of Houston-Clear Lake

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Presentation by Dr. Kathy Matthew, Vice Provost at the University of Houston-Clear Lake on EXCITE: Building on Strengths, Expanding Access, and Transforming Lives, US Department of Education.

SUPPORTING DOCUMENTATION: PowerPoint Presentation

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Information

COMPONENT: University of Houston-Clear Lake

Richard Walker

PRESIDENT

Richard Walker

11/13/2024

DATE

[Signature]

SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE

Renu Khator

CHANCELLOR

Renu Khator

11/15/24

DATE

EXCITE: Exploring Careers in Teaching

Kathryn Matthew, EdD
Vice Provost



EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

This US Department of Education grant seeks to expand access to postsecondary education for Houston's growing population of low-income and minority residents by fostering a supportive and successful community for graduate students in the College of Education.



EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

- Master of Arts in Teaching (MAT)
- Doctor of Curriculum & Instruction with a STEM Emphasis (EdD)
- Master of Science in School Counseling (MS)

EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

EXCITE	Awarded
2019 Grant (October 2019-September 2025)	\$2,747,622.00
2024 Grant (October 2024-September 2029)	\$2,641,839.00
Total	\$5,389,461.00



EXCITE

- Purpose
- Degrees
- Funding Received
- **Scholarships**
- Student Services
- Enrollment
- Sense of Belonging

Scholarships	Planned	Awarded to Date
2019 Grant	\$520,000.00	\$799,250.00
2024 Grant	\$520,000.00	\$25,000.00

2024 Grant

Includes an Endowed Scholarship

- \$45,000 in USDOE funds +
- \$45,000 in donor funds

EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

- Graduate Assistantships
- EXCITE Support Staff
 - One-on-one academic coaching
- Teacher Mentors
- Professional Organization Memberships
- Travel to Professional Organization Conferences
 - Networking
 - Presenting Research
- Career and Professional Development Sessions

EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

- MAT students increased from N = 5 in 2019 to N = 18 in 2024
 - Total Number of MAT students served N = 52
- EdD students increased from N = 28 in 2019 to N = 33 in 2024
 - Total Number of EDCI Students served N= 41



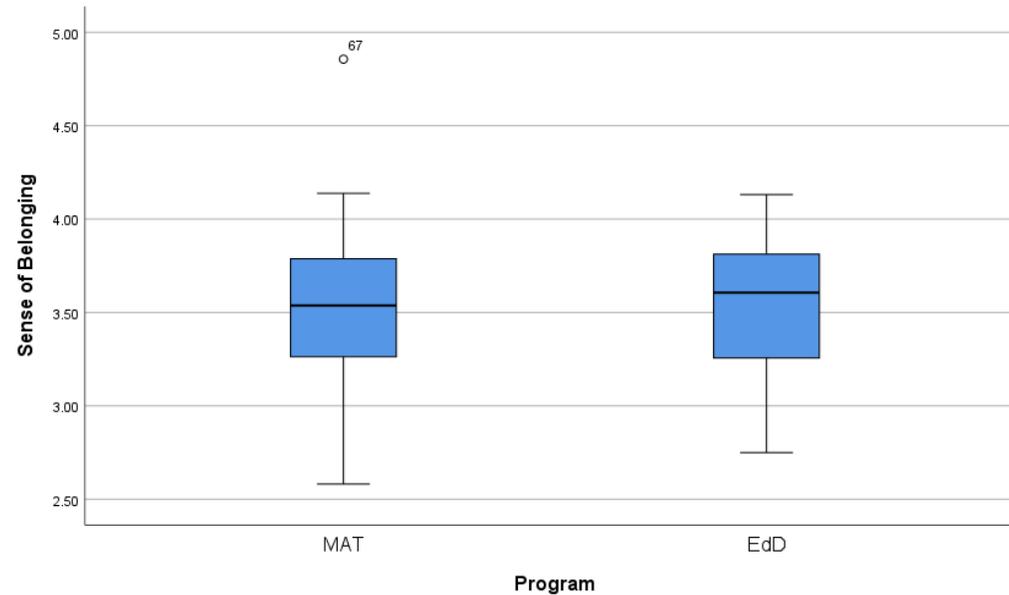
EDCI Students at Graduation

EXCITE

- Purpose
- Degrees
- Funding Received
- Scholarships
- Student Services
- Enrollment
- Sense of Belonging

Theoretical Framework - *Sense of Belonging*

- strengthens students' commitment to the university
- increases their likelihood of staying enrolled



Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating “sense of belonging” in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, 4(3), 227-256.

EXCITE

Roberta Raymond, EdD

Co-Principal Investigator

Renée Lastrapes, PhD

Evaluator

Michael Courson

Project Coordinator

Amy Cabness

Graduate Program Specialist

Grant Personnel

**UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA**

COMMITTEE: Academic, Research, and Student Success

ITEM: Success Story – University of Houston-Clear Lake

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Dr. Jennifer Irvin, Dean of the College of Science and Engineering, will present on UHCL's Pathways to STEM Careers grant.

UHCL students Christian Vazquez and Alex Alonso will speak briefly about how the grant has positively impacted their research and studies.

SUPPORTING DOCUMENTATION: PowerPoint Presentation

FISCAL NOTE: None

**RECOMMENDATION/
ACTION REQUESTED:** Information

COMPONENT: University of Houston-Clear Lake

Richard Walker

PRESIDENT

Richard Walker

11/13/2024

DATE

SENIOR VICE CHANCELLOR

Diane Z. Chase

11/13/2024

DATE

Renu Khator

CHANCELLOR

Renu Khator

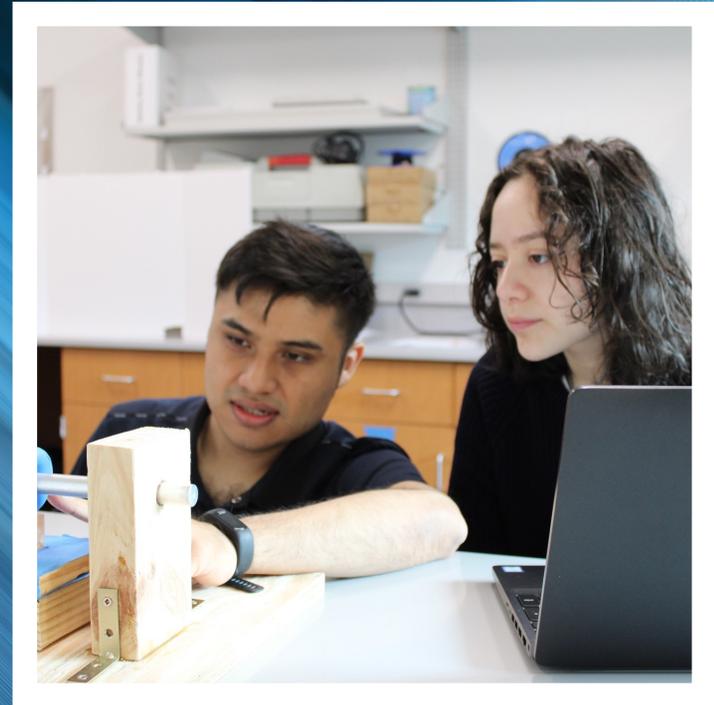
11/15/24

DATE

Impact of Pathways to STEM Careers

An HSI Grant from the Department of Education

UHCL University of Houston
Clear Lake



Dr. Jennifer Irvin



Dean, College of Science and Engineering

Pathways to STEM Careers (PSC)

MISSION

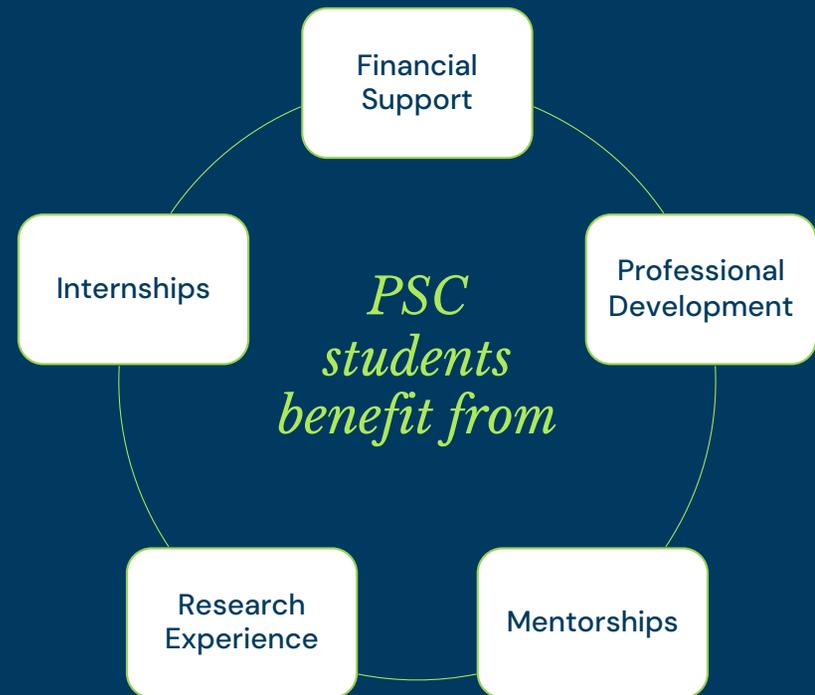
Increases student success & enhance student support for low-income students in the College of Science and Engineering at UHCL.

FUNDING

Awarded by the Dept. of Education in 2021 with funding until 2026.

EMPLOYMENT

Grant employs students as peer mentors, research assistants, and interns.



Pathways to STEM Careers

Since 2021, the Pathways to STEM Careers grant has...

Supported more than **130** UHCL students.

Helped **80** students graduate with a STEM degree.

Aided **59** students in obtaining STEM-related internships.

Enabled **30** students to present research at national conferences.

Success with Retention

UHCL has been able to retain and keep students employed in PSC with a GPA of 3.0 or higher for 4 or more semesters.

Student *Perspectives*

Alex Alonso



Class of 2027
Mechanical Engineering

Pathways to STEM Careers

WHY MECHANICAL ENGINEERING?

- Passion for understanding how things work and making them better!

WHY UHCL?

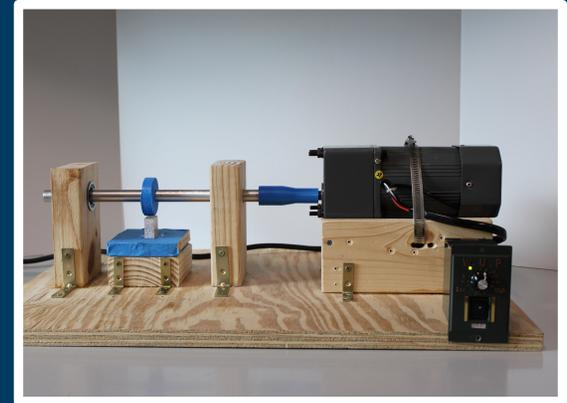
- Desired degree with affordable tuition.
- Available opportunities such as Pathways for STEM Careers.
- Can focus on research while being employed.



Low-Cost Device to Evaluate Biocompatible Resins for Enhanced Spinal Fusion Surgery Success

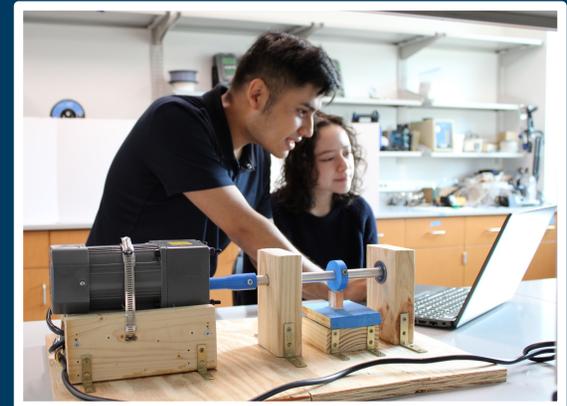
RESEARCH

- Testing new materials for an interbody cage device after spinal fusions.
- Designed and manufactured a low-cost fatigue test machine.



FUTURE

- Research currently being presented at American Society of Mechanical Engineers conference. Research will continue next semester with PSC funding.



Christian Vazquez



Class of 2026
Mechanical Engineering

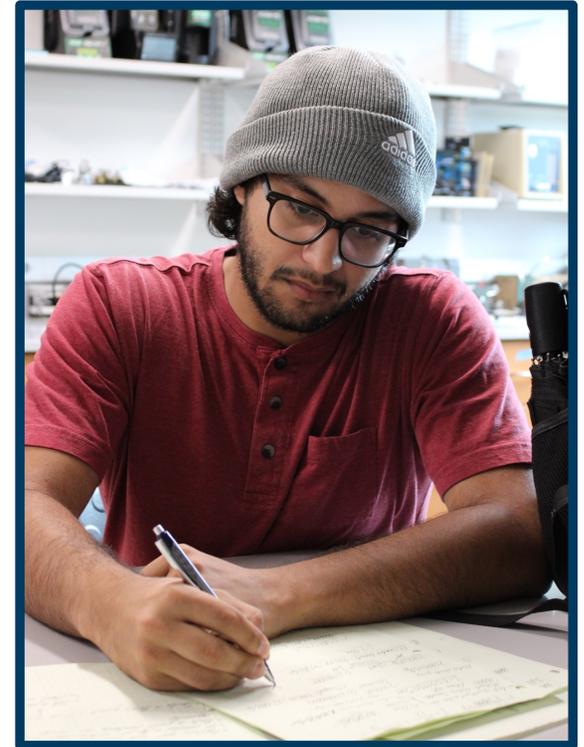
Pathways to STEM Careers

WHY UHCL?

- Close knit community of students, research assistants, and faculty.

BENEFITS OF PSC

- Material resources and equipment (i.e., 3D printer, machining tools, etc.)
- Mentoring and faculty support.
- Monthly stipend and employment.
- Experience has led to a partnership at Boeing.



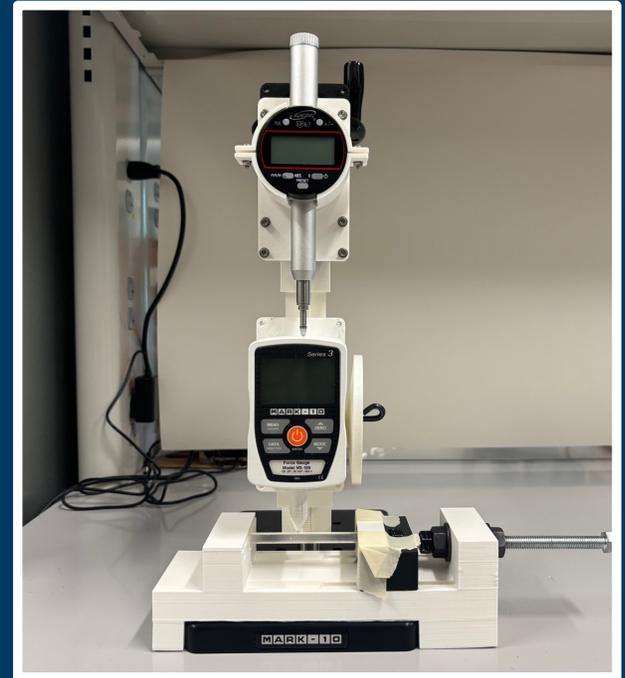
Vertical Displacement Shear Force Apparatus

RESEARCH

- Measures applied forces and how much beams bend.
- Components designed, tested, and manufactured onsite.
- Provisional patent already approved by patent attorney and published.

FUTURE

- Primarily for educational purposes. Aimed at students interested in biomedical engineering and materials science.



Pathways to STEM Careers provides
opportunities.

Thank *You.*