AGENDA

UNIVERSITY OF HOUSTON SYSTEM
ACADEMIC AND STUDENT SUCCESS COMMITTEE MEETING

DATE: Thursday, February 25, 2021

TIME: 12:30 PM

PLACE: Hilton University of Houston Hotel
Conrad Hilton Ballroom, Second Floor
4450 University Drive
Houston, Texas 77204
Link to live broadcast of meeting: https://uh.edu/bor-live

Chair: **Beth Madison**
Vice Chair: **Jack B. Moore**
Members: **Durga D. Agrawal**
Alonzo Cantu
John A. McCall, Jr.
Alvaro De La Cruz
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 a Master of Science in Data Science - University of Houston-Victoria — 3

Action: Approval
Presenter: Dr. Paula Myrick Short, Senior Vice Chancellor for Academic Affairs and Provost

C. Approval of a Bachelor of Arts and a Bachelor of Science in Public Policy - University of Houston — 7

Action: Approval
Presenter: Dr. Paula Myrick Short, Senior Vice Chancellor for Academic Affairs and Provost

D. Presentation on UH at Sugar Land Microsoft Showcase School - University of Houston 12

    Action: Information
Dr. Paula Myrick Short, Senior Vice Chancellor for Academic Affairs and Provost

E. Carbon Management Presentation - University of Houston 23

    Action: Information
Presenter: Dr. Paula Myrick Short, Senior Vice Chancellor for Academic Affairs and Provost

II. **Executive Session**
    Presenter: Chair Beth Madison

III. 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

IV. **Report and Action from Executive Session**
    Presenter: Chair Beth Madison

V. **Adjourn**

UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA

COMMITTEE: Academic and Student Success

ITEM: Approval of a Master of Science in Data Science – University of Houston-Victoria
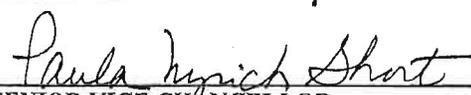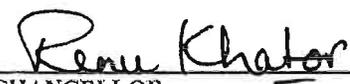
DATE PREVIOUSLY SUBMITTED:

SUMMARY:

The University of Houston-Victoria requests approval to establish a Master of Science in Data Science. The proposed degree will prepare students with knowledge in data analytics (applied statistics, data warehousing and datamining, and database system development) data programming (python programming, machine learning and data visualization), and data domain knowledge (predictive analytics, computational science, and computation methods in application domains such as bioinformatics). Graduates from this program will develop data analysis and decision-making skills including hands-on experience with statistics programming languages and use of comprehensive data architecture, design, and analysis tools through coursework and applied research experiences. In July 2019, dice.com listed openings for at least 43,706 open positions in data science nationwide; with more than 3,795 located in Texas. There are currently nine M.S. data science or data analytics programs offered by Texas public higher educational institutions. The University of Houston and University of Houston-Downtown both offer M.S. in Data Science programs via face-to-face instruction whereas this proposed program will be delivered in an online format. The program is expected to generate revenue starting in its fifth year.

SUPPORTING
DOCUMENTATION: Program Description and Financial Pro Forma

FISCAL NOTE: None

RECOMMENDATION/
ACTION REQUESTED: Administration recommends approval of this item

COMPONENT: University of Houston-Victoria

PRESIDENT	Robert K. Glenn	02/05/21 **DATE**
SENIOR VICE CHANCELLOR	Paula Myrick Short	2/5/2021 **DATE**
CHANCELLOR	Renu Khator	2/22/2021 **DATE**

MASTER OF SCIENCE IN DATA SCIENCE
UNIVERSITY OF HOUSTON-VICTORIA

Congruence with System Goals and University Mission
The University of Houston-Victoria (UHV) has determined the need to offer a Master of Science (M.S.) degree in Data Science. The proposed degree will address the mission of the University of Houston System and UHV by helping to meet the needs of Coastal Bend residents who wish to serve their local cities and counties as well as Texas and the U.S. by serving as Data Scientists/Architecture/Analyst and Business Intelligence Professionals.

Since UHV is a Hispanic Serving Institution (HSI), additional degrees offered will support the goal of the Texas Higher Education Coordinating Board (THECB) to provide opportunities for Hispanic residents of the region to achieve higher education at a rate that is proportional to their population. Since 2010, UHV has awarded 1034 undergraduate degrees to Hispanic students out of a total of 4367 undergraduate degrees, accounting for 23.7% of undergraduate degrees and 403 graduate degrees to Hispanic students, out of a total of 2843 degrees, accounting for 14% of graduate degrees.

This degree will aid in the overall strategic plan of UHV's School of Arts & Sciences. The school has been successfully offering computer information systems and computer science graduate programs the last 15 years. To continue to serve our regions' IT workforce needs, the school has developed a strategic plan to offer a data science program, which is in great demand from the job market.

The proposed Master of Science in Data Science will advance initiatives of the THECB's 60x30TX strategic plan by providing graduates advanced knowledge and skills to enter the workforce or progress in their current careers. The proposed program advances each of the four 60x30TX goals; an educated population, completion, marketable skills, and (reducing) student debt.

Goal One: An educated population - graduates will obtain an advanced degree in their field of study increasing the advanced educational attainment of Texas residents.

Goal Two: Completion – UHV is an HSI-designated institutions attracting many first-generation, minority, and low socioeconomic students. It is expected that many graduates will remain in Texas to contribute to the state's workforce.

Goal Three: Marketable skills - Coursework made up of practical skills in specific topics in data visualization, machine learning, data mining, predictive modeling, and statistics will allow graduates to obtain the necessary knowledge and skills to advance their careers. Elective courses will provide students flexibility in tailoring the program to their unique needs and career aspirations.

Goal Four: Student debt – In 2018-2019, UHV was the 6th most affordable university in Texas. The 36-hour program will be one of the lower cost masters level programs in the state.

Program Description
The M.S. in Data Science is a 36 semester credit hour program with two tracks, thesis and non-thesis. Both tracks require 24 credit hours of core coursework made up of data visualization, machine learning, data mining, predictive modeling, and statistics. The thesis track will include 6 hours of thesis research and coursework in addition to 6 hours of prescribed elective courses while the non-thesis track will

require 12 hours of prescribed elective courses or 9-11 hours of prescribed elective courses and up to 3 credit hours via internship.

The program prepares students with data analysis and decision-making skills, including hands-on experience with statistics programming languages and use of comprehensive data analysis tools, through coursework and applied research experiences. Proposed degree will enable IT and business professionals to advance their career through mastery of data analytics in enterprise.

Student and Job Market Demand
Former UHV students who are currently working in the IT industry have been requesting the creation of an M.S. in Data Science due to the advanced skill sets required to keep up with current industry trends. Program graduates will enhance their knowledge, skills, and credentials in data analytics and processing to accelerate their current career progression or to embark on a new career in both IT and business enterprise sectors.

Society is undergoing a data revolution in terms of collecting and accumulating data across all industries. The proliferation of big data and cloud computing technologies are constantly pushing the boundaries in speed and amount of data being archived. The fierce competition between companies is driven with data analytics. As a result, there is an exponential growth in job market demand for professionals with varying foci of data analytical skills, such as data architect, data engineer, data analyst, or data scientist, etc. and a constant shortage of data scientists with every three data scientists job postings per industry-related job search as of 2020 according to quanthub.com.

Proposed program will be offered in both classroom and online formats. UHV will be able to provide data science learning opportunities not only to the Victoria and west Houston area, but also to make the degrees available to working professionals throughout Texas and beyond.

Program Duplication
There are currently nine M.S. Data Science or Data Analytics programs offered by Texas public higher educational institutions. The University of Houston and University of Houston-Downtown both offer M.S. in Data Science programs via face-to-face instruction whereas this proposed program will be delivered in both in-person and online formats.

Faculty Resources
The current UHV computer science and mathematics faculty has the teaching, research, and industry expertise to implement the proposed program as shown by their range of publications and participation in relevant professional organizations, as well as their teaching experience at both undergraduate and graduate levels.

Brief Summary: State or National Need
In July 2019, dice.com listed openings for at least 43,706 open positions in data science nationwide; with more than 3,795 located in Texas. At regional and state levels, Texas has a wide variety of industry sectors, from traditional large oil and gas service companies to medical and IT startups, all requiring professionals skillful at data analytics and data scientists to incorporate data-driven decision-making processes.

PRO FORMA FOR MS in Data Science

					Operating Years			
FY2022		9	Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
Enrollments				Fall21	Fall22	Fall23	Fall24	Fall25
Cohort 1				15	11			
Cohort 2					20	15		
Cohort 3						25	19	
Cohort 4							25	19
Cohort 5								25
Cohort 6								
Total				15	31	40	44	44

Expenses	Salary	% effort	Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
Faculty (9 month)								
Current Faculty - Hardik Gohel	70,000	50%		35,000	35,000	35,000	35,000	35,000
Current Faculty - Yun Wan	102,984	50%		51,492	51,492	51,492	51,492	51,492
Current Faculty - Hongyu Guo	86,793	20%		17,359	17,359	17,359	17,359	17,359
Current Faculty - Qi Zhu	100,344	20%		20,069	20,069	20,069	20,069	20,069
Current Faculty - Junda HU	54,832	30%		16,450	16,450	16,450	16,450	16,450
				-	-	-	-	-
			-	-	-	-	-	-
Subtotal	414,953	170%	-	140,369	140,369	140,369	140,369	140,369
Faculty FTE								
Staff (12 month)								
Position 1				-	-	-	-	-
Position 2				-	-	-	-	-
Position 3				-	-	-	-	-
Position 4				-	-	-	-	-
Position 5				-	-	-	-	-
Position 6				-	-	-	-	-
Graduate Students			-	-	-	-	-	-
Subtotal	-	0%	-	-	-	-	-	-
Staff FTE								
Total Salaries			-	140,369	140,369	140,369	140,369	140,369
Benefits @ 33%			-	46,322	46,322	46,322	46,322	46,322
Total Personnel			-	186,691	186,691	186,691	186,691	186,691
Non-Personnel								
Marketing/Recruiting				3,000	3,000	3,000	3,000	3,000
Scholarships & Tuition Assistantships				5,000	8,000	10,000	10,000	10,000
Annual maintenance & operations				3,000	4,000	5,000	5,000	5,000
Library and Information Technology				3,000	4,000	4,000	4,000	4,000
Accreditation				-	-	-	-	-
Facilities				-	-	-	-	-
Laboratory and other equipment				-	-	-	-	-
Other			-	-	-	-	-	-
Total Non-Personnel			-	14,000	19,000	22,000	22,000	22,000
Allocated to university operations	30%			26,546	54,862	130,950	138,029	163,257
Total Annual Expense			$ -	$ 227,237	$ 260,553	$ 339,641	$ 346,720	$ 371,948
Revenue								
Formula Funding Generated				-	-	228,434	228,434	324,229
Statutory Tuition Applied to Formula				-	-	(27,900)	(27,900)	(39,600)
Subtotal: State General Revenue				-	-	200,534	200,534	284,629
UHV Tuition and Fees				97,146	200,768	259,056	284,962	284,962
Allocated to set aside per student				(8,659)	(17,895)	(23,090)	(25,399)	(25,399)
Total Revenue from Enrollment				88,487	182,873	436,500	460,096	544,192
Philanthropy and other External Revenue				-	-	-	-	-
Net Revenue				88,487	182,873	436,500	460,096	544,192
Net Annual Gain/(Loss)			-	$ (138,750)	$ (77,679)	$ 96,859	$ 113,377	$ 172,243
Cumulative Gain/(Loss)			-	$ (138,750)	$ (216,429)	$ (119,570)	$ (6,193)	$ 166,050

UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA

COMMITTEE: Academic and Student Success

ITEM: Approval of a Bachelor of Arts and Bachelor of Science in Public Policy – University of Houston

DATE PREVIOUSLY SUBMITTED:
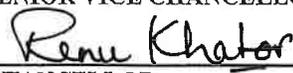
SUMMARY:

The University of Houston requests approval to establish a Bachelor of Arts and Bachelor of Science in Public Policy. The proposed degrees are designed to empower students in developing the tools necessary for understanding and shaping public policies through training in empirical methods, ethical analysis, cost-benefit analysis, organizational behavior and leadership, and economic forecasting. Students will take introductory courses on the nature of public policy and the policy-making process while meeting with public policy leaders and organizations from Houston to learn more about policymaking. According to the Texas Workforce Commission, social science occupations are expected to grow by 15.96% by 2026 in the Houston Metropolitan Statistical Area. The University of Texas at Dallas offers a B.S. in Public Policy and Southern Methodist University offers a B.A. in Public Policy. UH currently offers undergraduate programs in political science but the practical nature of the public policy degrees, including the Leadership and Policy Laboratory, opportunity for an internship, and quantitative focus on policy analysis set it apart from the broader, more traditional political science program. The B.A and B.S. in Public Policy programs are expected to generate revenue starting in their third year and fifth year, respectively.

SUPPORTING DOCUMENTATION: Program Descriptions and Financial Pro Formas

FISCAL NOTE: None

RECOMMENDATION/ ACTION REQUESTED: Administration recommends approval of this item

COMPONENT: University of Houston
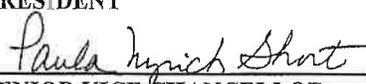
PRESIDENT	Renu Khator	DATE
SENIOR VICE CHANCELLOR	Paula Myrick Short	2/5/2021 DATE
CHANCELLOR	Renu Khator	2/22/2021 DATE

BACHELOR OF ARTS AND BACHELOR OF SCIENCE IN PUBLIC POLICY
UNIVERSITY OF HOUSTON

Congruence with System Goals and University Mission
The mission of the University of Houston is to offer nationally competitive and internationally recognized opportunities for learning, discovery, and engagement to a diverse population of students in a real-world setting. Goals of the University include strengthening its status as a nationally competitive public research university, increasing student success, fulfilling regional and state workforce needs, becoming an engine of social, economic, and intellectual development, and achieving local and national recognition. The proposed Bachelor of Arts and Bachelor of Science in Public Policy degree programs align well with the University's mission and can contribute in important ways to these goals.

Building on the Hobby School of Public Affairs' already existing and highly successful Leland Fellows Program (full-time internships in US congressional offices in Washington, D.C.), Hobby Fellows Program (full-time internships in legislative offices in the Texas Capitol), and the Civic Houston Internship Program (internships with elected officials and non-profit organizations throughout the greater Houston area), undergraduate students will have incredible opportunities to complete full academic training in public policy-making and analysis. Although many departments at the University of Houston offer courses on particular areas of public policy, there is no undergraduate degree program devoted to this field. The Hobby School is already situated to provide further advancement in empirical, ethical, and leadership education at the graduate level in the Master of Public Policy program to students who wish to build upon their undergraduate degrees.

The rigorous and multifaceted training provided by the Public Policy degrees will contribute to other system and university goals. The quantitative aspects of the B.S. degree will differentiate it from the political science degree offered at the undergraduate level at UH. The practical nature of the B.A. degree program will also help to keep students in touch with real-world problems and focused on concrete goals, which should translate into higher levels of successful degree completion.

Graduates of both Public Policy programs will address state and regional workforce needs as they will prepare students for professions in many government, public interest, and business-related policy positions. As students will have opportunities to earn practical work experience and meet key organizational leaders, job placements should be higher than average in the months after graduation in comparison to many other programs. The degrees will also prepare students for careers outside public policy fields by offering them training in quantitative, communication, and critical thinking skills essential for success in the new information economy (e.g., data analysis). These degree programs will help to affirm the University of Houston's reputation as an engine of social, economic, and intellectual development in the state and nation.

Program Description
Both the B.A. and B.S. in Public Policy are 120 semester credit hour programs with roughly 60 hours of core curriculum courses and 33 hours of departmental requirements. The remaining semester credit hours are completed with related subject matter electives including foreign language requirements for the B.A. and quantitative requirements for the B.S.

The proposed degrees are designed to empower students in developing the tools necessary for understanding and shaping public policies through training in empirical methods, ethical analysis, cost-benefit analysis, organizational behavior and leadership, and economic forecasting. Students will take introductory courses on the nature of public policy and the policy-making process while meeting with public policy leaders and organizations from the city of Houston to learn more about policymaking.

Given the interdisciplinary nature of public policy, students will also be required to take courses in disciplines outside public policy, such as political science, sociology, and economics, in order to develop a specialized knowledge in specific public policy areas. Students will complete their studies by taking a senior seminar on specialized public policy topics or through completing an internship program.

Student and Job Market Demand
The U.S. Bureau of Labor Statistics does not classify public policy analysts as a separate occupation because contingent upon their individual specialization, training and education, workers who analyze policy may be counted as political scientists, economists, survey researchers, urban and regional planners, or other social science occupations, depending upon the job title. Both degrees will, however, prepare students for careers in either qualitative administrative roles or quantitative data analysis, which are among some of the fastest growing occupations in the U.S.

According to the Texas Workforce Commission, social science occupations are expected to grow by 15.96% by 2026 in the Houston Metropolitan Statistical Area. Via Glassdoor, policy analysts earn an average annual salary of $67,691, as opposed to $65,817 for financial analysts. It is also 29% higher than the average salary of $52,581 for positions which require a political science degree.

The National Science Board found that in 2018, social science-related degrees accounted for more than 15% of all degrees awarded in the United States for the past 15 years. The number of social science-related bachelor's degrees awarded rose steadily from about 1,135,000 in 2000 to more than 1,730,000 in 2015.

Program Duplication
The University of Texas at Dallas offers a B.S. in Public Policy and Southern Methodist University a B.A. in Public Policy. Both programs are interdisciplinary and focus on contemporary public policy issues.

The University of Houston does offer undergraduate programs in political science, but the program has scaled back its public policy offerings over the last decade whereas the Hobby School is now positioned to expand its offerings to undergraduate students. In addition, the practical nature of the public policy degrees, including the Leadership and Policy Laboratory, opportunities for internships, and quantitative focus on policy analysis set them apart from the broader, more traditional political science program.

Faculty Resources
The Hobby School currently has six full-time faculty members and two faculty members with joint appointments. The school also employs three post-doctoral fellows who all have teaching responsibilities, and will be conducting a search for additional tenure-track faculty members in the fall of 2021.

State or National Need
The undergraduate programs in Public Policy will provide students with the opportunity to obtain rigorous quantitative and statistical training, conduct rigorous policy analysis, and shape policies and programs at the local, state, national and international levels.

The undergraduate program in Public Policy would address the growing need for skilled public policy graduates due to industry growth or to replace the increasing number of retirees in related social science positions within both the public and private sectors.

PRO FORMA FOR BA in Public Policy

FY2022 ▼	9				Operating Years			

Enrollments			Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
				Fall21	Fall22	Fall23	Fall24	Fall25
Cohort 1				15	14	13	12	
Cohort 2					27	24	23	22
Cohort 3						42	38	36
Cohort 4							61	55
Cohort 5								78
Cohort 6								
Total				15	41	79	134	191

Expenses

Faculty (9 month)	Salary	% effort	Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
Associate Professor - Pablo Pinto	153,600	10%		15,360	15,667	15,981	16,300	16,626
Professor - Daniel Engster	162,852	10%		16,285	16,611	16,943	17,282	17,628
Professor - Man Chiu Wong	188,700	10%		18,870	19,247	19,632	20,025	20,425
Instructional Assistant Professor - Gail Buttorff	75,915	10%		7,592	7,743	7,898	8,056	8,217
Instructional Assistant Professor - Johanna Luttrell	52,078	10%		5,208	5,312	5,418	5,527	5,637
Provost funded faculty line TBD	200,000	10%		20,000	20,400	20,808	21,224	21,649
Faculty 1 Hobby funded TBD	200,000	10%		20,000	20,400	20,808	21,224	21,649
Faculty 2 Hobby funded TBD	200,000	10%		20,000	20,400	20,808	21,224	21,649
Adjuncts (3)	24,000	100%	-	24,000	24,480	24,970	25,469	25,978
Subtotal	1,257,145	180%	-	147,315	150,261	153,266	156,331	159,458
Faculty FTE				1.60	1.60	1.60	1.60	1.60

Staff (12 month)	Salary	% effort	Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
Program Manager 2 - Scott Mason	58,265	10%		5,827	5,943	6,062	6,183	6,307
Program Director - Isaiah Warner	67,824	10%		6,782	6,918	7,056	7,198	7,341
Graduate Students	70,000	10%		7,000	7,140	7,283	7,428	7,577
			-	-	-	-	-	-
Subtotal	196,089	30%	-	19,609	20,001	20,401	20,809	21,225
Staff FTE				1.20	1.20	1.20	1.20	1.20
Total Salaries			-	166,923	170,262	173,667	177,140	180,683
Benefits @ 20.5%			-	34,219	34,904	35,602	36,314	37,040
Total Personnel			-	201,143	205,166	209,269	213,454	217,723

Non-Personnel				FY2022	FY2023	FY2024	FY2025	FY2026
Marketing/Recruiting				5,000	10,000	15,000	20,000	25,000
Scholarships & Tuition Assistantships				50,000	60,000	70,000	80,000	90,000
Annual maintenance & operations				20,000	25,000	30,000	35,000	45,000
Library and Information Technology				5,000	5,000	5,000	5,000	5,000
Accreditation					-	-	-	-
Facilities					-	-	-	-
Laboratory and other equipment				10,000	10,000	10,000	15,000	15,000
Other			-	-	-	-	-	-
Total Non-Personnel			-	90,000	110,000	130,000	155,000	180,000
Allocated to university operations		10%		13,775	37,653	73,179	123,689	177,566
Total Annual Expense			$ -	$ 304,918	$ 352,818	$ 412,448	$ 492,143	$ 575,289

Revenue

				FY2022	FY2023	FY2024	FY2025	FY2026
Formula Funding Generated				-	-	59,983	59,983	206,087
Statutory Tuition Applied to Formula				-	-	(53,700)	(53,700)	(184,500)
Subtotal: State General Revenue				-	-	6,283	6,283	21,587
UH Tuition and Fees				154,107	421,226	811,630	1,376,689	1,962,296
Allocated to set aside per student				(16,353)	(44,698)	(86,125)	(146,086)	(208,227)
Total Revenue from Enrollment				137,754	376,528	731,788	1,236,886	1,775,655
Philanthropy and other External Revenue				-	-	-	-	-
Net Revenue				137,754	376,528	731,788	1,236,886	1,775,655
Net Annual Gain/(Loss)			-	$ (167,164)	$ 23,710	$ 319,340	$ 744,743	$ 1,200,366
Cumulative Gain/(Loss)			-	$ (167,164)	$ (143,454)	$ 175,886	$ 920,629	$ 2,120,995

PRO FORMA FOR BS in Public Policy

FY2022 ▼

Enrollments					Year 0	FY2022 Fall21	FY2023 Fall22	Operating Years FY2024 Fall23	FY2025 Fall24	FY2026 Fall25
Cohort 1						8	7	7	6	
Cohort 2							16	14	14	13
Cohort 3								22	20	19
Cohort 4									31	28
Cohort 5										44
Cohort 6										
Total						8	23	44	72	104

Expenses	Salary	% effort		Year 0	FY2022	FY2023	FY2024	FY2025	FY2026
Faculty (9 month)									
Associate Professor - Pablo Pinto	153,600	10%			15,360	15,667	15,981	16,300	16,626
Professor - Daniel Engster	162,852	10%			16,285	16,611	16,943	17,282	17,628
Professor - Man Chiu Wong	188,700	10%			18,870	19,247	19,632	20,025	20,425
Instructional Assistant Professor - Gail Buttorff	75,915	10%			7,592	7,743	7,898	8,056	8,217
Instructional Assistant Professor - Johanna Luttrell	52,078	10%			5,208	5,312	5,418	5,527	5,637
Provost funded faculty line TBD	200,000	10%			20,000	20,400	20,808	21,224	21,649
Faculty 1 Hobby funded TBD	200,000	10%			20,000	20,400	20,808	21,224	21,649
Faculty 2 Hobby funded TBD	200,000	10%			20,000	20,400	20,808	21,224	21,649
Adjuncts (3)	24,000	100%		-	24,000	24,480	24,970	25,469	25,978
Subtotal	1,257,145	180%		-	147,315	150,261	153,266	156,331	159,458
Faculty FTE					1.60	1.60	1.60	1.60	1.60
Staff (12 month)									
Program Manager 2 - Scott Mason	58,265	10%			5,827	5,943	6,062	6,183	6,307
Program Director - Isaiah Warner	67,824	10%			6,782	6,918	7,056	7,198	7,341
Graduate Students	70,000	10%		-	7,000	7,140	7,283	7,428	7,577
Subtotal	196,089	30%		-	19,609	20,001	20,401	20,809	21,225
Staff FTE					1.20	1.20	1.20	1.20	1.20
Total Salaries				-	166,923	170,262	173,667	177,140	180,683
Benefits @ 20.5%				-	34,219	34,904	35,602	36,314	37,040
Total Personnel				-	201,143	205,166	209,269	213,454	217,723
Non-Personnel									
Marketing/Recruiting					5,000	10,000	15,000	20,000	25,000
Scholarships & Tuition Assistantships					30,000	40,000	50,000	60,000	70,000
Annual maintenance & operations					20,000	25,000	30,000	35,000	45,000
Library and Information Technology					5,000	5,000	5,000	5,000	5,000
Accreditation					-	-	-	-	-
Facilities					-	-	-	-	-
Laboratory and other equipment					10,000	10,000	10,000	15,000	15,000
Other				-	-	-	-	-	-
Total Non-Personnel				-	70,000	90,000	110,000	135,000	160,000
Allocated to university operations			10%		7,347	21,306	40,431	66,198	96,923
Total Annual Expense				$ -	$ 278,490	$ 316,472	$ 359,700	$ 414,653	$ 474,646

Revenue									
Formula Funding Generated					-	-	33,778	33,778	110,728
Statutory Tuition Applied to Formula					-	-	(30,240)	(30,240)	(99,130)
Subtotal: State General Revenue					-	-	3,538	3,538	11,598
UH Tuition and Fees					82,190	238,352	448,349	736,611	1,071,311
Allocated to set aside per student					(8,722)	(25,292)	(47,576)	(78,165)	(113,681)
Total Revenue from Enrollment					73,469	213,060	404,311	661,984	969,228
Philanthropy and other External Revenue					-	-	-	-	-
Net Revenue					73,469	213,060	404,311	661,984	969,228
Net Annual Gain/(Loss)				-	$ (205,021)	$ (103,412)	$ 44,611	$ 247,332	$ 494,582
Cumulative Gain/(Loss)				-	$ (205,021)	$ (308,433)	$ (263,822)	$ (16,490)	$ 478,092

UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA

COMMITTEE: Academic and Student Success

ITEM: Presentation on UH at Sugar Land Microsoft Showcase School

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Fort Bend ISD has been chosen to be a Microsoft Showcase School with its development occurring over the next two to three years. They have expressed interest in building this new, innovative school on the currently underdeveloped acreage of the UH Sugar Land campus instructional site through a land lease agreement. Such an agreement would be contingent on Fort Bend ISD funding approval. The benefits academically will be discussed as well as next steps.

SUPPORTING DOCUMENTATION: N/A

FISCAL NOTE:

RECOMMENDATION/ ACTION REQUESTED: Information

COMPONENT: University of Houston

PRESIDENT	Renu Khator	DATE
Paula Myrick Short (signature)		2/22/2021
SENIOR VICE CHANCELLOR	Paula Myrick Short	DATE
Renu Khator (signature)		2/22/201
CHANCELLOR	Renu Khator	DATE

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Fort Bend ISD and Microsoft Partnership

Fort Bend ISD selected to join the 2020-21 Incubator Path of the Microsoft Showcase School Program

- Journey to open a first-of-its-kind STEM magnet program in FBISD

- Incubator Path for educational transformation

  o Vision and innovation in teaching, learning and assessment

  o Computational and critical thinking skills, creativity and collaboration, using data to support decision-making

  o Promotion of growth mindset among staff, educators, and students

- **FBISD will explore *higher education partnerships for a professional development school***

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STEM School Components

STEM School – *Student learning*

- K – 8 Magnet school
- Pipeline to Early College High School, College, and Workforce
- Curriculum Supports Inquiry, Design Thinking, and Innovation
- Develops the attributes of the Profile of a Graduate
- Business Partnerships
- Incubator Opportunities

Professional Development School – *Educator **development***

- University Partnership
- Observation, Modeling, and Field-Based Opportunities
- Problems of Practice within a laboratory setting
- Exploration and collaboration
- Pipeline for teacher leader pathways and retention

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College of Education

- Innovative educational institutions formed through partnerships between universities and public-school districts.

- Professional trainees in classroom teaching, social psychology, counseling, and diagnosticians.

- Data sharing agreements and research, making UH a national content leader on the K-16 learning spectrum.

- STEM teacher pipeline for surrounding school districts.
    - Enhanced student achievement
    - Collaborative research opportunities to create national model

College of Technology

- Creation of STEM student pipeline

- Enhanced Microsoft engagement to support programs

- Collaborative research opportunities to create national model

- Long-term goal - HS curriculum to offer UH college credits

Brand Acceleration towards Top 50 Public University Status

1st

Professional Development School Model Embedded in Microsoft Showcase School

4th

New Construction Microsoft Showcase School in U.S.

Strong external messaging on Microsoft/UH/FBISD partnership

Opportunity for Microsoft Brand Integration

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Implications for UH

Financial Commitment

- School construction and ongoing maintenance, including utilities, maintenance, security etc., will be the responsibility
of FBISD.

- Limited to terms of land lease agreement to be negotiated.

Letter of Intent
Fort Bend ISD Microsoft Showcase School
on UH at Sugar Land Instructional Site

- To begin negotiations to create a land lease agreement (to be located at the Southeast corner adjacent to Memorial Park) on the currently undeveloped acreage of the Sugar Land instructional site.

- Land lease agreement to be provided to FBISD for the sole purpose of a new construction Microsoft Showcase STEM K-8 school with early college high school.

  - Contingent on FBISD funding approval

  - FBISD plans to include this project in their next bond referendum scheduled for November 2021

- Brought to UHS Board of Regents for approval in either May or August.

Proposed UH at Sugar Land Location

Thank You

UNIVERSITY OF HOUSTON SYSTEM
BOARD OF REGENTS AGENDA

COMMITTEE: Academic and Student Success

ITEM: Carbon Management Presentation

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

The UH Carbon Management Hub is proposed to be developed to promote rapid and transformative deployment of carbon capture utilization and storage technologies. This builds upon a recent Department of Energy/Southern States Energy Board Grant to the UH Center for Carbon Management. Support for this initiative will allow the university to develop testing and validation facilities needed to accelerate commercialization and project activation and to develop academic programming to train the skilled workforce needed for these new technologies.

**SUPPORTING
DOCUMENTATION:**   N/A

FISCAL NOTE:

**RECOMMENDATION/
ACTION REQUESTED:**   Information

COMPONENT: University of Houston

PRESIDENT	Renu Khator	DATE
Paula Myrick Short		2/10/2021
SENIOR VICE CHANCELLOR	Paula Myrick Short	DATE
Renu Khator		2/22/201
CHANCELLOR	Renu Khator	DATE

UNIVERSITY OF HOUSTON
STRATEGIC PLAN

TOGETHER,
WE RISE
TOGETHER, WE
SOAR

CARBON HUB

February 25, 2021
Ramanan Krishnamoorti

UNIVERSITY of **HOUSTON**

VISION
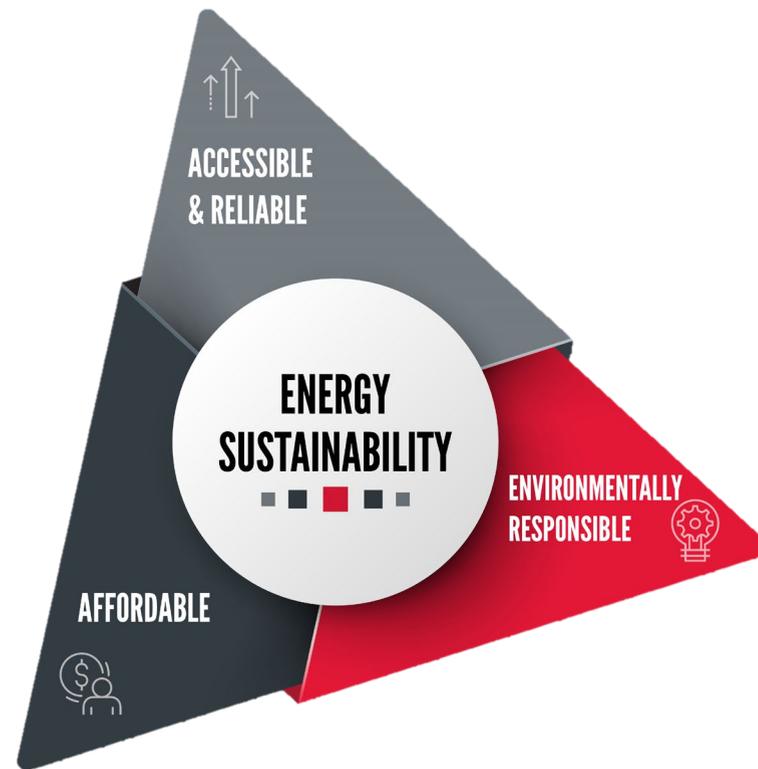
The Carbon Hub will help revitalize the energy industry and Texas industrial innovation economy by focusing on the research and commercialization of emissions reduction and decarbonization to meet the sustainable energy trilemma.

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STRATEGIC OUTCOMES

The Carbon Hub will Create a Transformative Environment to:

1. Address key research, development, deployment and commercialization bottlenecks
2. Integrate & advance energy systems
3. Provide an industrial base & global leadership
4. Develop education towards workforce development and re-deployment

A New Carbon Paradigm. A New Energy Paradigm

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BENEFITS

Strengthens and fortifies the energy industry so that it can:

1. Solve the energy trilemma of *affordable, reliable, sustainable energy*
2. Continue to lead the world and drive Texas' economy
3. Prevents long-term costly regulations by taking preventative measures
4. Protects 30% of Texas economy including 240,000 jobs in Houston alone and creates more jobs
5. Maintains and strengthen Texas' lead in energy innovation

The Next Evolution in Texas' Rich Energy Industry

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WHY HOUSTON?

Houston has industry expertise and leadership

- 38% of Houston's employment is in the energy sector
- 1 in 5 jobs created since 2010 is in energy
- 28% of total U.S. oil and gas employment and 40% of U.S. midstream and downstream employment

If it can't be done in Houston, it can't be done anywhere!

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WHY UH?

UH has established faculty expertise, programs and support

- Over 50 faculty in CCME, National Academy Members

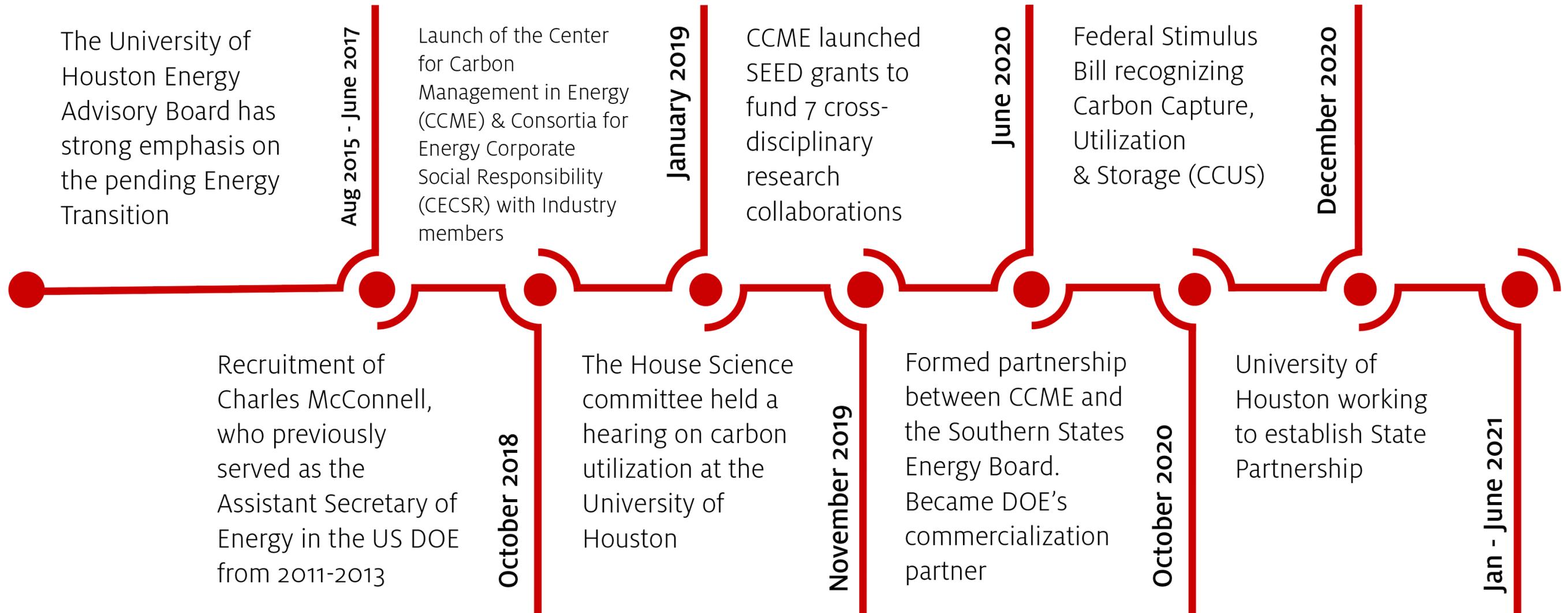Dr. Farouq Ali   Dr. Maurice Brookhart   Dr. Birol Dindoruk   Dr. Christine Ehlig-Economides   Dr. Andrea Prosperetti   Dr. Ganesh Thakur

- Programs (CCME, CECSR, GEMI (Bauer), EENR (Law), Hobby)

- Energy Advisory Board

- Strong Corporate Support

ExxonMobil Energy lives here™   Schlumberger   wood.   DOW   PKS Kiewit   Denbury

BAKER HUGHES   Shell   OXY   nrg | reliant an NRG company   Chevron   bp   Phillips 66

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CARBON HUB TIMELINE

CCME
Center for Carbon Management in Energy

The University of Houston Energy Advisory Board has strong emphasis on the pending Energy Transition

Aug 2015 - June 2017

Launch of the Center for Carbon Management in Energy (CCME) & Consortia for Energy Corporate Social Responsibility (CECSR) with Industry members

January 2019

CCME launched SEED grants to fund 7 cross-disciplinary research collaborations

June 2020

Federal Stimulus Bill recognizing Carbon Capture, Utilization & Storage (CCUS)

December 2020

Recruitment of Charles McConnell, who previously served as the Assistant Secretary of Energy in the US DOE from 2011-2013

October 2018

The House Science committee held a hearing on carbon utilization at the University of Houston

November 2019

Formed partnership between CCME and the Southern States Energy Board. Became DOE's commercialization partner

October 2020

University of Houston working to establish State Partnership

Jan - June 2021

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INVESTMENT

- U.S. Department of Energy has approved collaborative effort between UH CCME and the Southern States Energy Board and awarded $3.5 million grant

- UH is requesting an initial investment of $10 MM each year of the 2022-23 biennium for startup costs

- State of Texas has history of investing previously to transform energy industry
    1) Texas Tech University – Global Laboratory for Energy Asset Management and Manufacturing (GLEAMM) - $13 million
    2) University of Texas at Austin – Bureau of Economic Geology (BEG) – initial investment of $3,500;
    during 2020-21 biennium it received $3.8 mm each year

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STRATEGIC PLAN

TOGETHER,
WE RISE
TOGETHER, WE
SOAR

THANK YOU

Carbon Hub: A New Carbon Paradigm, A New Energy Paradigm

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