UNIVERSITY of HOUSTON | **SUSTAINABILITY**

University of Houston Path to Platinum Plan

UH Office of Sustainability

Fall 2018

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Introduction

        This report was created to chart a "Path to Platinum" for the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment & Rating System (STARS) report. The STARS report is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. STARS is intended to engage and recognize the full spectrum of colleges and universities - from community colleges to research universities - and encompasses long-term sustainability goals for already high-achieving institutions as well as entry points of recognition for institutions that are taking first steps toward sustainability.[1]

        This strategic plan was developed for the University of Houston and will be implemented by the Office of Sustainability. The plan contains outlines for improvement in some of the lowest scoring categories and suggestions for addressing continuous areas of improvement. The STARS reporting system has updated the measures and metrics to achieve platinum rating. It is worth noting some of the scoring criteria have changed and data previously worth only full credit are now available for partial credit. Additionally, some metrics changes now require more extensive reporting and criteria for some categories have expanded in order to achieve full points.

        The "Path to Platinum" is intended to be a long term plan and requires support from students, faculty, and staff. The University of Houston has achieved great milestones in sustainability. The final level of excellence necessitates institutional support and integrated systematic structures to ensure proper data collection, reporting, and change implementation.

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[1] STARS Overview. *Association for the Advancement of Sustainability in Higher Education.* Retrieved from
https://stars.aashe.org/pages/about/stars-overview.html

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Improvement Plan

The improvement plan encompasses both short and long term improvements. This section gives broad suggestions for the lowest scoring categories. The outlined plan is intended to be interpreted from a very high level perspective for goal setting. Actual processes for improvement have yet to be determined. The improvement plan is subdivided by the five major STARS categories; Academics, Engagement, Operations, Planning and Administration, and Innovation.

The largest area of improvement is University Operations and some measures already have programming in place that will provide data for later STARS submissions. Other areas are beyond the control of University personnel and require a cultural shift of the University community as a whole. The Office if Sustainability conducts outreach and education to encourage the cultural shift, but any significant change requires a collective effort of the University community.

Achieving platinum increasingly requires more rigorous and concerted University effort. Institutions already achieving platinum have integrated sustainability into both campus culture and institutional structure. For the University of Houston to achieve platinum, some administrative functions of the Office of Sustainability will require institutional support at the presidential level. This support ensures integration of sustainability into policy, accountability toward sustainability in administrative and academic departments, and focus on engagement through highly visible campaigns.

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Characteristics of Platinum Schools

	Platinum Schools	UH
Climate Action Plan for greenhouse gas reduction strategies	Yes	No
Comprehensive stormwater management plan	Yes	No
Comprehensive energy reduction plan	Yes	No
Published criteria to evaluate sustainable purchasing practices	Yes	No
Committee on sustainable investment	Yes	No
Published green cleaning products guidelines	Yes	No
Certified bike friendly university	Yes	No
Living wage for lowest paid employee earns	150% or higher	<100%

Characteristics of Platinum Schools

	Platinum Schools	UH
GHG emissions reductions	17% - 65% Reduction	13.5% Increase
Percentage of total campus water use	10% - 40% Reduction	8% Increase
Commitment to renewable energy	100%	No Commitment
Percentage of expenditures on green cleaning products	80% - 90%	8%
Recycling percentage	40% - 65%	15%
Total waste reduction of all campus waste	25% - 34% Reduction	10% Increase
Percentage of total courses that include sustainability	17%-20%	7%
Students with at least 1 sustainability course	100%	69%

 NOTE: AASHE will release and updated version or STARS in 2019 that will increase the rigor of the assessment and add additional metrics to several categories.

Representatives from AASHE suggest over time the assessment will continue to increase in rigor and achieving platinum will continue to be reserved for only the top tier sustainable schools.

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2015 – 2018 Improvement by Category

Improvement Metric	Previous Score - 2015	Projection - 2018	Improvement
Academics	38.22	46.24	8.02
Engagement	36.66	38.40	3.74
Operations	26.79	30.45	3.49
Planning & Admin	21.06	20.30	-0.76

12.94 Point Improvement
2018 Score – 70 Gold

NOTE: Most of our gains came from improvements outside of the Office of Sustainability and A&F. We gained the most in sustainable research, courses with sustainability learning outcomes, and more students in academic programs with sustainability projects or learning.

Engagement improved mostly due to scoring and criteria changes and Operations improved mostly due to better access to more accurate operations data and reporting metrics since the last submission.

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2015 - 2018 Score Changes Detail

	Credit	Total Points Available	Previous Score	Projected Score	Improvement
(OP)	Outdoor Air Quality	1	1	1	0
(AC)	Research and Scholarship*	12	12	12	0
(EN)	Continuing Education*	5	5	5	0
(AC)	Support for Research*	4	4	4	0
(EN)	Student Educators Program*	4	4	4	0
(EN)	Outreach Campaign	4	4	4	0
(OP)	Water Use	4	4	4	0
(PA)	Sustainability Planning	4	4	4	0
(AC)	Undergraduate Program*	3	3	3	0
(AC)	Graduate Program*	3	3	3	0
(EN)	Employee Educators Program	3	3	3	0
(EN)	Community Partnerships	3	3	3	0
(EN)	Inter-Campus Collaboration	3	3	3	0
(PA)	Participatory Governance	3	3	3	0
(PA)	Support for Underrepresented Groups	3	3	3	0
(AC)	Immersive Experience*	2	2	2	0
(AC)	Incentives for Developing Courses	2	2	2	0
(EN)	Student Orientation*	2	2	2	0
(EN)	Student Life	2	2	2	0
(EN)	Outreach Materials and Publications	2	2	2	0
(EN)	Staff Professional Development	2	2	2	0
(EN)	Participation in Public Policy	2	2	2	0
(EN)	Trademark Licensing*	2	2	2	0
(OP)	Sustainable Dining*	2	2	2	0
(OP)	Landscape Management*	2	2	2	0
(OP)	Biodiversity*	2	2	2	0
(OP)	Rainwater Management	2	2	2	0
(EN)	Assessing Sustainability Culture	1	1	1	0
(EN)	Employee Orientation	1	1	1	0
(OP)	Electronics Purchasing	1	1	1	0
(OP)	Hazardous Waste Management	1	1	1	0
(PA)	Sustainability Coordination	1	1	1	0
(PA)	Assessing Diversity and Equity	1	1	1	0
(PA)	Investment Disclosure*	1	1	1	0
(PA)	Assessing Employee Satisfaction	1	1	1	0
(PA)	Wellness Program	1	1	1	0
	Innovation	4	4	4	0

	Credit	Total Points Available	Previous Score	Projected Score	Improvement
(AC)	Learning Outcomes*	8	1	5.54	4.54
(OP)	Waste Minimization and Diversion	8	1.99	4.57	2.58
(AC)	Sustainability Literacy Assessment	4	0	2	2
(EN)	Employee Educators Program	3	1	3	2
(AC)	Academic Courses	14	7.22	9.1	1.88
(EN)	Community Service*	5	2	3.4	1.4
(EN)	Continuing Education*	5	3.66	5	1.34
(EN)	Assessing Sustainability Culture	1	0	1	1
(EN)	Community Partnerships	3	2	3	1
(OP)	Sustainable Dining*	2	1	2	1
(OP)	Landscape Management*	2	1	2	1
(OP)	Rainwater Management	2	1	2	1
(PA)	Support for Underrepresented Groups	3	2	3	1
(OP)	Sustainable Procurement	3	0	0.75	0.75
(OP)	Outdoor Air Quality	1	0.5	1	0.5
(PA)	Affordability and Access	4	2.72	3.15	0.43
(OP)	Support for Sustainable Transportation	2	1.5	1.8	0.3
(OP)	Clean and Renewable Energy	4	0.21	0.41	0.2
(OP)	Student Commute Modal Split*	2	0.76	0.91	0.15
(OP)	Building Design and Construction*	3	1.13	1.26	0.13
(OP)	Greenhouse Gas Emissions	10	3.37	3.33	-0.04
(PA)	Sustainable Investment*	4	0.13	0.08	-0.05
(OP)	Campus Fleet*	1	0.27	0.21	-0.06
(PA)	Diversity and Equity Coordination	2	2	1.88	-0.12
(PA)	Workplace Health and Safety	2	0.88	0.74	-0.14
(OP)	Office Paper Purchasing	1	0.3	0.07	-0.23
(OP)	Employee Commute Modal Split	2	0.96	0.64	-0.32
(AC)	Campus as a Living Laboratory*	4	4	3.6	-0.4
(OP)	Building Energy Consumption	6	2.89	2.21	-0.68
(PA)	Sustainability Planning	4	3.83	3	-0.83
(EN)	Employee Orientation	1	2	1	-1
(PA)	Employee Compensation	3	1.5	0.45	-1.05
(EN)	Staff Professional Development	2	3	1	-2
(EN)	Inter-Campus Collaboration	3	5	3	-2
(OP)	Water Use	5	4	1.66	-2.34
	Total Points	**203**	**122.73**	**135.666**	**12.94**
	Weighted Score		**65.37%**	**70.83%**	**5.47%**

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Categories for Improvement

		2018 Score	Total Points Available	Points Gap
2018 Submission Gaps				
(OP)	Greenhouse Gas Emissions	3.37	10	-6.63
(OP)	Waste Minimization and Diversion	2.7	8	-5.3
(OP)	Food and Beverage Purchasing*	0.8	6	-5.2
(AC)	Academic Courses	9.1	14	-4.9
(PA)	Sustainable Investment*	0.08	4	-3.92
(OP)	Building Energy Consumption	2.21	6	-3.79
(OP)	Clean and Renewable Energy	0.41	4	-3.59
(OP)	Building Operations and Maintenance*	2	5	-3
(PA)	Employee Compensation	0.45	3	-2.55
(AC)	Learning Outcomes*	5.54	8	-2.46
(AC)	Water Use	1.66	4	-2.34
(OP)	Sustainable Procurement	0.75	3	-2.25
(PA)	Committee on Investor Responsibility*	0	2	-2
(AC)	Sustainability Literacy Assessment	2	4	-2
(AC)	Open Access to Research*	0	2	-2
(OP)	Building Design and Construction*	1.26	3	-1.74
(EN)	Community Service*	3.4	5	-1.6
(OP)	Employee Commute Modal Split	0.64	2	-1.36
(PA)	Workplace Health and Safety	0.74	2	-1.26
(OP)	Student Commute Modal Split*	0.91	2	-1.09
(PA)	Sustainability Planning	3	4	-1
(EN)	Assessing Sustainability Culture	0	1	-1
(OP)	Office Paper Purchasing	0.07	1	-0.93
(PA)	Affordability and Access	2.78	4	-1.22
(OP)	Campus Fleet*	0.21	1	-0.79
(OP)	Cleaning and Janitorial Purchasing	0.08	1	-0.92
(OP)	Support for Sustainable Transportation	1.8	2	-0.2
(PA)	Diversity and Equity Coordination	1.88	2	-0.12
(OP)	Construction and Demolition Waste Diversion*	0.98	1	-0.02

		Current Score	Previous Steps for Current Score	Current Goals for Improvement	Est. Complete Date	Est. Report Date	Est. Improve Score	Est. Points Improved
Improvement Plan								
Current Project Projections								
(AC)	Sustainability Literacy Assessment	2	Conducted only a pre-test	Conduct pre and post test	2019	2019	4	**2**
(AC)	Open Access to Research*	0	No open access	Library will offer open access	2019	2019	2	**2**
(EN)	Assessing Sustainability Culture	0	No assessment	Conduct assessment	2019	2019	1	**1**
(OP)	Sustainable Procurement	0.75	No life cycle cost analysis	Implement life cycle cost analysis for HVAC and other energy systems	2019	2019	1.75	**1**
(OP)	Clean and Renewable Energy	0.41	>1% Renewable Energy	30% Renewable Energy	2019	2020	1.41	**1**
(OP)	Greenhouse Gas Emissions	3.37	13.5% Green House Gas increase	5% Green House Gas decrease	2019	2020	4.5	**1.13**
(PA)	Sustainability Planning	3	No climate action plan	Published climate action plan	2020	2020	4	**1**
(OP)	Food and Beverage Purchasing*	0.8	Less than 5% total F&B purchases from sustainable sources	Achieve 15% local and less than 30% conventional animal products	2020	2020	2.8	**2**
(AC)	Learning Outcomes*	5.54	69% students take at least 1 sustainable course	100% students take at least 1 sustainable course	2020	2021	8	**2.46**
(OP)	Waste Minimization and Diversion	2.7	14% Recycling Rate	10% Total campus waste reduction	2021	2021	3.2	**0.5**
(OP)	Building Design and Construction*	1.25	0 sqft new construction is certified	LEED Silver for new construction (min. 400K sqft)	2021	2021	1.5	**0.25**
						Points Added from Listed Projects		14.34

Achieves 78 Gold by 2021	Platinum Score	Improved Score	Points Left to Platinum
	165	150	15

		Current Score	Previous Steps for Current Score	Suggested Goals for Improvement	Report Same Year	Report Following Year	Projected Improved Score	Total Points Improved
Additional Targeted Projects								
(AC)	Academic Courses	9.1	7% of total classes include sustainability	20% of total classes include sustainability	X		14	**4.9**
(PA)	Committee on Investor Responsibility*	0	No committee on investor responsibility	Establish committee on investor responsibility	X		2	**2**
(OP)	Building Energy	2.21	28% energy reduction from base	Achieve 35% energy reduction from base	X		2.71	**0.5**
(OP)	Building Operations and Maintenance*	2	LEED Silver on 40K sqft of current buildings	LEED Silver on 2.5 mil sqft of current buildings	X		2.5	**0.5**
(PA)	Sustainable Investment*	0.08	$7.2 mil in sustainable investment funds	Invest $46 mil into sustainable investments	X		0.58	**0.5**
(OP)	Construction and Demolition Waste	0.2	20% construction waste diversion	100% construction waste diversion	X		1	**0.8**
(PA)	Employee Compensation	0.45	90% FTE = Living wage and lowest paid = >100% living wage	96.7% FTE = Living wage and lowest paid = 100% living wage	X		0.95	**0.5**
(OP)	Water Use	1.66	8% Campus water use increase	15% Campus water use reduction	X		2.16	**0.5**
(EN)	Community Service*	3.4	49.99% Students do community service	63.5% Students do community service		X	3.9	**0.5**
(OP)	Employee Commute Modal Split	0.64	32% Staff use alternative transportation	57% Staff use alternative transportation	X		1.14	**0.5**
(PA)	Workplace Health and Safety	0.74	115 workplace injuries	20% Reduction in workplace injuries		X	1.24	**0.5**
(OP)	Student Commute Modal Split*	0.91	45.3% Students use alternative transportation	70.5% Students use alternative transportation	X		1.41	**0.5**
(OP)	Office Paper Purchasing	0.07	8% Recycled paper purchased	57% Recycled paper purchased	X		0.57	**0.5**
(PA)	Affordability and Access	2.78	51% Low-income graduation rate	78% Low-income graduation rate		X	3.28	**0.5**
(OP)	Campus Fleet*	0.21	21% All electric vehicles in fleet	71% All electric vehicles in fleet	X		0.71	**0.5**
(OP)	Cleaning and Janitorial Purchasing	0.08	8% expenditure on cleaning products are for green products	58% expenditure on cleaning products are for green products		X	0.58	**0.5**
(OP)	Support for Sustainable Transportation	1.8	0 EV charging stations	Install EV charging stations	X		2	**0.2**
(PA)	Diversity and Equity Coordination	1.88	Missing a campus climate survey	Publically post campus climate survey results	X		2	**0.12**
						Points Added from Listed Projects		**14.52**
165 Points needed for Platinum						**Improved Score**		
						164.52		

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		Current Score	Previous Steps for Current Score	Suggested Goals for Improvement	Improved Score	Points Improved
	Climate Action Plan					
(PA)	Sustainability Planning	3	No climate action plan	Published climate action plan	4	**1**
(OP)	Clean and Renewable Energy	0.41	>1% Renewable Energy	30% Renewable Energy	1.41	**1**
(OP)	Greenhouse Gas Emissions	3.37	13.5% Green House Gas increase	5% Green House Gas decrease	4.5	**1.13**
(OP)	Waste Minimization and Diversion	2.7	Current waste total	10% Total campus waste reduction	3.2	**0.5**
(OP)	Building Energy Consumption	2.21	28% energy reduction from base	Achieve 35% energy reduction from base	2.71	**0.5**
(OP)	Water Use	1.66	8% Campus water use increase	15% Campus water use reduction	2.16	**0.5**
(OP)	Construction and Demolition Waste Diversion*	0.2	20% construction waste diversion	100% construction waste diversion	1	**0.8**
(OP)	Campus Fleet*	0.21	21% All electric vehicles in fleet	71% All electric vehicles in fleet	0.71	**0.5**
(OP)	Cleaning and Janitorial Purchasing	0.08	8% expenditure on cleaning products are for green products	58% expenditure on cleaning products are for green products	0.58	**0.5**
(OP)	Support for Sustainable Transportation	1.8	0 EV charging stations	Install EV charging stations	2	**0.2**
(OP)	Student Commute Modal Split*	0.91	45.3% Students use alternative transportation	70.5% Students use alternative transportation	1.41	**0.5**
(OP)	Employee Commute Modal Split	0.64	32% Staff use alternative transportation	57% Staff use alternative transportation	1.14	**0.5**
(OP)	Building Operations and Maintenance*	2	LEED Silver on 40K sqft of current buildings	LEED Silver on 2.5 mil sqft of current buildings	1.5	**0.25**
(OP)	Building Design and Construction*	1.25	0 sqft new construction is certified	LEED Silver for new construction (min. 400K sqft)	2.5	**0.5**
				Points Toward Platinum		**8.38**