



Transfer Degree Map: HCC Associate of Science Physics to UH-Downtown Bachelor of Science (Data Science)



4 – Year Suggested Academic Plan for Transfer

*Based on UHD Catalog year of 2021-2022 **Note:** There may be some minor changes in courses due to recently approved course updates.

First Year – Freshman							
Fall Semester				Spring Semester			
HCC	UHD	Course Name	Hrs	HCC	UHD	Course Name	Hrs
EDUC 1300	Elective	Learning Framework	3	CHEM 1412	CHEM 1308	General Chemistry II	4
ENGL 1301	ENGL 1301	Composition I	3	HIST 1302	HIST 1306	United States History after 1877	3
MATH 2412	MATH 1404	Pre-Calculus Math	4	MATH 2413	MATH 2401	Fundamentals of Calculus with Applications	4
CHEM 1411	CHEM 1307	General Chemistry I	4	ENGL 1302	ENG 1302	Composition II	3
HIST 1301	HIST 1305	United States History to 1877	3				
Total			17	Total			14
Second Year – Sophomore							
Fall Semester				Spring Semester			
HCC	UHD	Course Name	Hrs	HCC	UHD	Course Name	Hrs
GOVT 2305	POLS 2305	Federal Government	3	MATH 2415	MATH 2403	Calculus III	4
PHYS 2325	PHYS 2401	University Physics I	3	GOVT 2306	POLS 2306	Texas Government	3
PHYS 2125	PHYS 2101	University Physics Laboratory I	1	PHYS 2326	PHYS 2402	University Physics II	3
MATH 2414	MATH 2402	Calculus II	4	PHYS 2126	PHYS 2102	University Physics Laboratory II	1
Creative Arts	Creative Arts	Creative Arts UHD Course Options	3	Elective	Elective	Social & Behavioral Science	3
Total			14	Total			14
Third Year – Junior							
Fall Semester				Spring Semester			
HCC	UHD	Course Name	Hrs	HCC	UHD	Course Name	Hrs
	CS 1311	Introduction to Computing with Python	3		CS 2311	Python Data Structures	3
	DATA 2401	Data Science I	3		DATA 3401	Data Science II	4
	MATH 2305	Discrete Mathematics Structures	3		MATH 3423	Advanced Linear Algebra and Optimization	4
	MATH 2422	Linear Algebra	3		STAT 3333	Statistical Inference	3
	MATH 3302	Probability & Statistics	4		PHIL 2305	Language, Philosophy and Culture	3
Total			16	Total			17
Fourth Year – Senior							
Fall Semester				Spring Semester			
HCC	UHD	Course Name	Hrs	HCC	UHD	Course Name	Hrs
	DATA 3402	Data Collection, Transformation & Curation	3		DATA 4319	Statistical and Machine Learning	3
	PHIL 3301	Moral Philosophy I	3		DATA 4395	Senior Project in DS or Equivalent	3
	STAT 4303 or STAT 4311	Decision Mathematics or Operations Research	3		STAT 4310	Applied Regression	3
	PHYS UL	Domain Focus Elective	3		PHYS UL	Domain Focus Elective	3
	Domain Focus Elective	Domain Focus Elective	3				
Total			15	Total			12

Notes/Comments (AS in Physics to BS in Data Science at UHD):

- (1) EDUC 1300 is required for First Time in College (FTIC) students only. If not FTIC, take PHED 1164.
- (2) Students may be placed in MATH 2413 through placement testing OR by completing all MATH prerequisites (MATH 1314, 1316, and 2412). Student should consult with advisor regarding placement testing.
- (3) Electives may be selected to complete the minimum 120 semester credit hours for completion of the degree at UHD. Student should consult with an advisor.

Articulation Agreement Information – Standard and Program to Program (P2P)

Transfer of Credit & Student Benefits

- Credits from HCC that are transferrable to UHD degree programs may be specified in any program-to-program articulation agreement.
- Reverse transfer
- HCC students will be allowed access to academic advising services at UHD
- HCC Honors students admitted to UHD will receive:
 - Acceptance to UHD Honors Program with a minimum GPA (GPA varies by the College in which the program resides)
 - UHD will accept a minimum of 12 hours of transfer Honors credit; eligible for merit and need-based aid commensurate with qualifications

Standard Agreement & P2P Agreement

(Associate of Science in Physics to
Bachelor of Science in Data Science)

Program Admission Requirements

- Transfer Admission Criteria (15 or more earned college-level credit hours) 2.0 GPA
- Student must be in Good Academic Standing at last institution attended
- For a course taken more than once, the highest grade will be transferred

Program Specific Requirements

- The Bachelor of Science Degree in Data Science requires a grade of “C” or higher in all upper-level science courses to be applied to the degree.