

Name:

Date:

PeopleSoft ID:

Checklist for BS in Mathematics - Data Science Option

Tr	UH	MATHEMATICS (46 Hours; MUST have 30 advanced hours):	
		MATH 2413	Calculus I
		MATH 2414	Calculus II
		MATH 2415	Calculus III
		MATH 2131	Linear Algebra Lab
		MATH 2318	Linear Algebra
		MATH 3325	Transition to Advanced Mathematics
		MATH 3331	Intermediate Differential Equations
		MATH 3333	Intermediate Analysis
		MATH 3338	Probability
		MATH 3349	Inferential Statistics
		MATH 4389	Survey of Undergraduate Mathematics
		MATH 3	3 hours APPROVED advanced MATH elective *
		MATH 43	3 hours 4000-level MATH elective **

*Elective Must Come From List Below:	
(Check Catalog for Pre-Requisites)	
MATH 3330	Abstract Algebra
MATH 3334	Advanced Multivariable & Vector Calculus
MATH 4315	Graph Theory with Applications
MATH 4320	Introduction to Stochastic Processes
MATH 4331	Introduction to Real Analysis I
MATH 4335	Partial Differential Equations
MATH 4339	Multivariate Statistics
MATH 4364	Intro to Numerical Analysis in Scientific Computing
MATH 4366	Numerical Linear Algebra
MATH 4377	Advanced Linear Algebra I

Can be satisfied by any 4000-level MATH elective

MATH SENIOR SEQUENCE (6 Hours):	
	MATH 4322 Introduction to Data Science and Machine Learning
	MATH 4323 Data Science and Statistical Learning

COMPUTER SCIENCE REQUIREMENTS (6 Hours):	
	COSC 1336 Computer Science & Programming
	COSC 2306 Data Programming
	OR 2436 Programming and Data Structures

Students are strongly encouraged to fulfill the NSM Capstone by completion of a minor in Computer Science or a minor in Data Science-Computer Science

NSM APPROVED NATURAL SCIENCES (14 Hours):	
	1 hr NSM Natural Science Lab
	1 hr NSM Natural Science Lab
	3 hr NSM Natural Science Lecture
	3 hr NSM Natural Science Lecture
	3 hr NSM Natural Science Lecture
	3 hr NSM Natural Science Lecture

NSM CAPSTONE (Minimum 6 Advanced Hours):

- Must choose from one of the following:
- | | |
|----------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Minor | <input type="checkbox"/> Senior Research Project |
| <input type="checkbox"/> Double Major | <input type="checkbox"/> Senior Honors Thesis |
| <input type="checkbox"/> Double Degree | <input type="checkbox"/> teachHouston |

CORE (Check UH Catalog or UH Core Website for Pre-Requisites)

Tr	UH	COMMUNICATION (6 Hours):
		ENGL 1301 First Year Writing I
		ENGL 1302 First Year Writing II

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HIST & GOVT REQUIREMENTS (12 Hours):	
	American History (3 Hours)
	American History (3 Hours)
	GOVT 2305 U.S. Government: Congress, President, and Court
	GOVT 2306 U.S. and Texas Constitutions and Politics

FREE ELECTIVES

(Additional hours to complete a total of 120 hours.)

Must complete at least **36 advanced hours**

ADDITIONAL CORE (12 Hours): Choose from UH Core Website	
	Language, Philosophy & Culture (3 Hours)
	Creative Arts (3 Hours)
	Social & Behavioral Sciences (3 Hours)
	Writing in the Disciplines (3 Hours)

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RULES YOU NEED TO KNOW:

1. MINIMUM of a **2.00 GPA** in cumulative, major, and minor GPA to graduate
2. **PRE-REQ RULE:** Must earn C- or better in pre-requisite for MATH courses
3. **C- RULE:** MAXIMUM of **6 hours of grades below C-** allowed in MATH courses
4. LAST **30 hours** must be exclusively completed at UH
5. MAXIMUM of **6 W's** allowed during entire undergraduate career
6. MINIMUM of **36 advanced hours** and **120 total hours** to graduate
7. MAXIMUM of **66 lower level transfer hours** may be applied towards UH degree