

Name:

Date:

PeopleSoft ID:

# Checklist for BS in Mathematics

## Tr UH **MATHEMATICS (46 Hours; MUST have 30 advanced hours):**

Tr	UH	
		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 3330 Abstract Algebra
		MATH 3331 Intermediate Differential Equations
		MATH 3333 Intermediate Analysis
		MATH 3334 Advanced Multivariable & Vector Calculus
		OR MATH 3363 Introduction to Partial Differential Equations
		OR MATH 3364 Introduction to Complex Analysis
		MATH 4389 Survey of Undergraduate Mathematics
		MATH _3_ 3 hours advanced MATH elective
		MATH 43 3 hours 4000-level MATH elective

### MATH SENIOR SEQUENCE (6 Hours):

		MATH 43__ 3 hrs MATH Senior Sequence elective
		MATH 43__ 3 hrs MATH Senior Sequence elective

Possible Senior Sequences: 4309/4310, 4331/4332, 4335/4362, 4350/4351, 4364/4365, 4364/4366, 4377/4378, 4320/4380

### 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

### 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

### 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

### 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)

## \*EXAMPLES OF MATHEMATICS ELECTIVES

(Check Catalog for Pre-Requisites)

MATH 3338	Probability
MATH 3339	Statistics for the Sciences
MATH 3340	Intro to Fixed Income Math
MATH 3349	Inferential Statistics
MATH 3379	Introduction to Higher Geometry
<b>MATH 4309</b>	<b>Mathematical Biology</b>
<b>MATH 4310</b>	<b>Biostatistics</b>
<b>MATH 4320</b>	<b>Introduction to Stochastic Processes</b>
MATH 4322	Introduction to Data Science and Machine Learning
MATH 4323	Data Science and Statistical Learning
<b>MATH 4331</b>	<b>Introduction to Real Analysis I</b>
<b>MATH 4335</b>	<b>Partial Differential Equations</b>
MATH 4339	Multivariate Statistics
<b>MATH 4350</b>	<b>Differential Geometry</b>
<b>MATH 4351</b>	<b>Calculus on Manifolds</b>
MATH 4355	Mathematics of Signal Representation
<b>MATH 4362</b>	<b>Theory of Differential Equations &amp; Nonlinear Dynamics</b>
<b>MATH 4364</b>	<b>Intro. to Numerical Analysis in Scientific Computing</b>
<b>MATH 4365</b>	<b>Numerical Methods for Differential Equations</b>
<b>MATH 4366</b>	<b>Numerical Linear Algebra</b>
<b>MATH 4377</b>	<b>Advanced Linear Algebra I</b>
<b>MATH 4378</b>	<b>Advanced Linear Algebra II</b>
<b>MATH 4380</b>	<b>Mathematical Introduction to Options</b>
MATH 4383	Number Theory and Cryptography
MATH 4388	History of Mathematics

**Bold courses are part of a senior sequence**

### 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            |

Tr	UH	

### FREE ELECTIVES

(Additional hours to complete a total of 120 hours, including at least 36 advanced 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 UH 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