Name: **Date:**

PeopleSoft ID:

Checklist for BS in Mathematics

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 3330 Abstract Algebra
		MATH 3331 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, 4322/4323, 4331/4332, 4335/4362, 4350/4351, 4364/4365, 4364/4366, 4377/4378, 4320/4380

NSM Natural Sciences (14 Hours):

			1 hr Natural Sciences Lab***
			1 hr Natural Sciences Lab***
			3 hours NSM Approved Natural Science***
			3 hours NSM Approved Natural Science***
			3 hours NSM Approved Natural Science
			3 hours NSM Approved Natural Science

******Indicates ALL courses must be in the same subject and approved for NSM majors***

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

STATE 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

FROM APPROVED CORE LIST (12 Hours): Choose from UH Core Web

			Language, Philosophy & Culture (3 Hours)
			Creative Arts (3 Hours)
			Social & Behavioral Sciences (3 Hours)
			Writing in the Disciplines (3 Hours)

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 hour**s 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

*EXAMPLES OF MATHEMATICS ELECTIVES

(Check Catalog for Pre-Requisites)

MATH 3336	Discrete Mathematics
MATH 3338	Probability
MATH 3339	Statistics for the Sciences
MATH 3349	Inferential Statistics
MATH 3379	Introduction to Higher Geometry
MATH 4309	**Mathematical Biology**
MATH 4310	**Biostatistics**
MATH 4320	**Introduction to Stochastic Processes**
MATH 4322	**Introduction to Data Science and Machine Learning**
MATH 4323	**Data Science and Statistical Learning**
MATH 4331	**Introduction to Real Analysis I**
MATH 4335	**Partial Differential Equations**
MATH 4339	Multivariate Statistics
MATH 4350	**Differential Geometry**
MATH 4351	**Calculus on Manifolds**
MATH 4355	Mathematics of Signal Representation
MATH 4362	**Theory of Differential Equations & Nonlinear Dynamics**
MATH 4364	**Intro. to Numerical Analysis in Scientific Computing**
MATH 4365	**Numerical Methods for Differential Equations**
MATH 4366	**Numerical Linear Algebra**
MATH 4377	**Advanced Linear Algebra I**
MATH 4378	**Advanced Linear Algebra II**
MATH 4380	**Mathematical Introduction to Options**
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:

- ☐ Minor
- ☐ Double Major
- ☐ Double Degree
- ☐ Senior Research Project
- ☐ Senior Honors Thesis
- ☐ teachHouston

Tr	UH	

FREE ELECTIVES

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

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SC 3/23/21