Checklist for BS in Mathematics

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 325 Transition to Advanced Mathematics
- MATH 3300 Abstract Algebra
- MATH 3331 Differential Equations
- MATH 3332 Intermediate Analysis
- MATH 3334 Advanced Multivariable & Vector Calculus
- OR MATH 3833 Introduction to Partial Differential Equations
- OR MATH 3364 Introduction to Complex Analysis
- MATH 4200 Survey of Undergraduate Mathematics
- MATH 3__ 3 hours advanced MATH elective
- MATH 4__ 3 hours 4000-level MATH elective

MATH SENIOR SEQUENCE (6 Hours):

- MATH 4__ 3 hrs MATH Senior Sequence elective
- MATH 4__ 3 hrs MATH Senior Sequence elective

Possible Senior Sequences: 4309/4310, 4312/4323, 4311/4332, 4335/4362, 4350/4351, 4346/4365, 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

***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)

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-requisites 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

EXAMPLES OF MATHEMATICS ELECTIVES

(Must choose from one of the following:
- 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

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