# Check List for BA in Mathematics

**Tr** | **UH** | **MATHEMATICS (45 Hours; MUST have 30 advanced hours):**  
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MATH 1431 | Fall, Spring, Sum | Calculus I  
MATH 1432 | Fall, Spring, Sum | Calculus II  
MATH 2331 | Fall, Spring, Sum | Linear Algebra  
MATH 2433 | Fall, Spring, Sum | Calculus III  
*MATH 3325 Transition to Advanced Mathematics*  
MATH 3330 | Spring, Fall | Abstract Algebra  
MATH 3331 | Fall, Spring | Differential Equations  
MATH 3332 | Spring, Fall | Intermediate Analysis  
MATH 3334 | Spring, Fall | Advanced Multivariable Calculus  
OR MATH 3335 Vector Analysis  
OR MATH 3364 & Complex Analysis  
MATH 4389 | Fall, Spring | Survey of Undergraduate Mathematics  
MATH 4330 | Spring, Fall | Abstract Algebra  
MATH 4331 | Fall, Spring | Differential Equations  
MATH 4333 | Spring, Fall | Advanced Multivariable Calculus  
**OR MATH 3335 Vector Analysis Fall, Spring**  
**OR MATH 3364 & Complex Analysis Fall, Spring**  
**Beginning Fall 2013, MATH 3325 is a required pre-requisite for MATH 3330 and MATH 3333.**  

**MATH SENIOR SEQUENCE (6 Hours):**  
MATH 4333; 4334 or MATH 4335 & 4336 or MATH 4350 & 4351 or MATH 4355  
MATH 4377; 4378 or MATH 4379; 4380 or MATH 4388; 4389  
**EX: MATH 4377; 4378 can be combined to form a Senior Sequence**  
**EX: MATH 4320; 4380 can be combined to form a Senior Sequence**  

**NSM Natural Sciences (7 Hours):**  
1 hr Natural Sciences Lab** (Lab must be in the same discipline)  
3 hours NSF Approved Natural Science**  
3 hours NSF Approved Natural Science**  
**Indicates ALL courses must be in the same discipline and approved for NSM majors**  
3 hours 2000-level Foreign Language  
3 hours 2000-level Foreign Language  

**CORE (Check UH Catalog or UH Core Website for Pre-Requisites):**  
MATH 1331 | Fall, Spring, Sum | Calculus I  
MATH 1332 | Fall, Spring, Sum | Calculus II  
MATH 2331 | Fall, Spring, Sum | Linear Algebra  
MATH 2433 | Fall, Spring, Sum | Calculus III  
*MATH 3325 Transition to Advanced Mathematics*  
MATH 3330 | Spring, Fall | Abstract Algebra  
MATH 3331 | Fall, Spring | Differential Equations  
MATH 3332 | Spring, Fall | Intermediate Analysis  
MATH 3334 | Spring, Fall | Advanced Multivariable Calculus  
OR MATH 3335 Vector Analysis  
OR MATH 3364 & Complex Analysis  
MATH 4389 | Fall, Spring | Survey of Undergraduate Mathematics  
MATH 4330 | Spring, Fall | Abstract Algebra  
MATH 4331 | Fall, Spring | Differential Equations  
MATH 4333 | Spring, Fall | Advanced Multivariable Calculus  
**OR MATH 3335 Vector Analysis Fall, Spring**  
**OR MATH 3364 & Complex Analysis Fall, Spring**  
**Beginning Fall 2013, MATH 3325 is a required pre-requisite for MATH 3330 and MATH 3333.**  

**COMMUNICATION (6 Hours):**  
ENGL 1303 | First Year Writing I  
ENGL 1304 | First Year Writing II  

**STATE REQUIREMENTS (12 Hours):**  
HIST 1376 or 1377 | The United States to 1877  
HIST 1378 or 1379 | The United States Since 1877  
POLS 1336 | U.S. and Texas Constitutions and Politics  
POLS 1337 | U.S. Government: Congress, President, and Court  

**FROM APPROVED CORE LIST (12 Hours):**  
Choose from UH Core Website  
Language/Philosophy/Culture (3 Hours)  
Creative Arts (3 Hours)  
Social & Behavioral Science (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. **C- RULE:** **MAXIMUM of 6 hours of grades below C- allowed in UH MATH courses**  
3. **LAST 30 hours must be exclusively completed at UH**  
4. **MAXIMUM of 6 W's allowed during entire undergraduate career**  
5. **MINIMUM of 36 advanced hours and 120 total hours to graduate**  
6. **MAXIMUM of 66 lower level transfer hours may be applied towards UH degree**  
7. **At 60 hours, must request a Major Degree Plan **REQUIRED TO GRADUATE**  

**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  

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

*May require up to 26 hours of free electives, depending on NSM Capstone selected and if any Foreign Language pre-requisites are needed*  

**Advisor:**