

### B.S. Mathematics Major Curriculum

(Fall 2013 – Summer 2017 Cohorts), 127 Credits

<http://engineering.nyu.edu/academics/programs/mathematics-bs/curriculum>

**Name:**

**N**

<b>Core Mathematics Requirements: 47 Credits</b>	<b>Credits</b>	<b>Grade</b>	<b>Notes/Substitute</b>
MA-UY 1002 The Art of Mathematics	2		
MA-UY 1024 Calculus I for Engineers <b>or</b> MA-UY 1324 Integrated Calculus I for Engineers	4		
MA-UY 1124 Calculus II for Engineers <b>or</b> MA-UY 1424 Integrated Calculus II for Engineers	4		
MA-UY 2034 Linear Algebra and Differential Equations	4		
MA-UY 2114 Calculus III: Multi-Dimensional Calculus	4		
MA-UY 2224 Data Analysis	4		
MA-UY 2314 Discrete Mathematics	4		
MA-UY 3022 Probability Theory II	2		
MA-UY 3113 Advanced Linear Algebra & Complex Variables	3		
MA-UY 3914 Project in Mathematics I *	4		
MA-UY 4413 Applied Partial Diff. Equations *	3		
MA-UY 4423 Introductory Numerical Analysis	3		
MA-UY 4613 Analysis I	3		
MA-UY 4623 Analysis II	3		
<b>Other Required Courses: 27 Credits</b>			
CM-UY 1004 General Chemistry for Engineers	4		
CS-UY 1114 Introduction to Programming & Problem Solving	4		
PH-UY 1013 Mechanics	3		
PH-UY 2023 Electricity, Magnetism and Fluids	3		
PH-UY 2033 Waves, Optics and Thermodynamics	3		
PH-UY 2121 General Physics Laboratory I	1		
PH-UY 2131 General Physics Laboratory II	1		
EXPOS-UA 1 Writing the Essay <b>or</b> EXPOS-UA 4	4		
EXPOS-UA 2 The Advanced College Essay <b>or</b> EXPOS-UA 9	4		
<b>Concentration: 18 Credits **</b>			
<b>Humanities/Social Science Electives: 20 Credits ***</b>			
<b>Free Electives: 15 credits (with advisor's approval)</b>			

\* May be substituted by another course with advisor's approval

\*\* These consist of at least 9 credits in a single area of study other than mathematics and beyond the required courses found above. The sequence must be well integrated and consistent to ensure you gain knowledge in an area other than mathematics. When selecting electives, you should consult with the advisor of the department that interests you. Concentration work is in addition to the courses you take under other categories of the programs. For instance, required courses in physics do not count toward a concentration in physics.

\*\*\* **Humanities and Social Sciences Elective Requirement (20 credits)**

Students may choose 20 credits from any humanities and social sciences cluster. These electives can be within a single cluster or across multiple clusters. The department encourages students to take humanities and social sciences electives across clusters and/or across disciplines within a cluster. These 20 humanities and social sciences credits must satisfy the following constraints:

- a. **At least one course must be a 3xxx/4xxx level humanities and social science elective.**
- b. **At least one course must be a writing-intensive humanities and social science elective, labeled by "W."**

[Humanities and Social Sciences Electives List: http://bulletin.engineering.nyu.edu/preview\\_program.php?catoid=11&poid=3480](http://bulletin.engineering.nyu.edu/preview_program.php?catoid=11&poid=3480)