Graphic and Information Design and Mathematics, BS

The Department of Mathematics and the Department of Art + Design offer a combined major in mathematics and graphic and information design. Students interested in the combined major integrate the study of mathematical reasoning including methods for analyzing and solving problems encountered in the physical world with the design of message and meaning, integrating text and image to visualize concepts and data to enhance human understanding of complex and vital knowledge.

Program Requirements

- Concentrations and course offerings may vary by campus and/or by program modality. Please consult with your advisor or admissions coach for the course availability each term at your campus or within your program modality.
- Certain options within the program may be *required* at certain campuses or for certain program modalities. Please consult with your advisor or admissions coach for requirements at your campus or for your program modality.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

Universitywide Requirements

All undergraduate students are required to complete the Universitywide Requirements (https://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/).

NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (https://catalog.northeastern.edu/undergraduate/university-academics/nupath/).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Formal and Quantitative Reasoning (FQ), Analyzing and Using Data (AD), and Societies and Institutions (SI) are met through the major course requirements.

NUpath requirements Natural and Designed World (ND), Difference and Diversity (DD), and Ethical Reasoning (ER) must be met through electives.

Graphic and Information Design Requirements

Code	Title	Hours
Art and Design at Northeastern		
ARTF 1000	Art and Design at Northeastern	1
or MATH 1000	Mathematics at Northeastern	
Art and Design Fundamentals Required		
ARTF 1220	Elements of Visual Composition (with optional ARTF 1121)	2
Art and Design Fundamentals Elective		
Complete three of the following:		6
ARTF 1200	Representational Drawing	
ARTF 1210	Abstract Drawing	
ARTF 1230 and ARTF 1231	Making with Form and Materials and Making with Form and Materials Tools	
ARTF 1240 and ARTF 1241	Making with Video, Sound, and Animation and Making with Video, Sound, and Animation Tools	
ARTF 1250 and ARTF 1251	Designing Interactive Experiences and Designing Interactive Experiences Tools	
Art and Design History		
ARTH 2210	Modern Art and Design History	4
ARTH 2215	History of Graphic Design	4
Design		
ARTG 1270 and ARTG 1271	Design: Process + Practices and Studio for Design: Process + Practices	4
ARTG 1290 and ARTG 1291	Typographic Systems and Studio for Typographic Systems	4

ARTG 2242	Information Design Principles	4
ARTG 2252	Graphic Design Principles	4
ARTG 3350	Typography 2	4
Degree Project		
ARTG 4550	Design Degree Project	4
Art and Design Elective		
Complete one of the following:		4
ARTD 2360 and ARTD 2361	Introduction to Photography and Photo Tools	
ARTD 2380 and ARTD 2381	Video Basics and Video Tools	
ARTG 2262 and ARTG 2263	Prototyping with Code and Lab for ARTG 2262	
ARTG 2400	Interaction Design Principles (with optinal ARTG 2401)	
ARTG 3452	Topics In Graphic Design Inquiry	
ARTG 3460	Identity and Brand Design	
ARTG 4554	Typography 3	

Mathematics Requirements

Code	Title	Hours
Math Reasoning		
MATH 1365	Introduction to Mathematical Reasoning	4
Calculus		
A grade of C or higher is required:		
MATH 1341	Calculus 1 for Science and Engineering	4
MATH 1342	Calculus 2 for Science and Engineering	4
MATH 2321	Calculus 3 for Science and Engineering	4
Intermediate Math		
MATH 2331	Linear Algebra	4
MATH 2341	Differential Equations and Linear Algebra for Engineering	4
MATH 3081	Probability and Statistics	4
Advanced Elective		
Complete one of the following:		4
MATH 3150	Real Analysis	
MATH 3175	Group Theory	
MATH 3560	Geometry	
Mathematics Elective		
MATH 4025 can count as an upper-level math elective as well as a capstone.		
Complete one course in the following range:		4
MATH 3101 to MATH 4899		

Integrative Requirement

Code	Title	Hours
ARTG 3444	Topics in Information Design Inquiry	4

Combined-Major Credit Requirement

Complete 80 semester hours in the major.

Program Requirement

128 total semester hours required

Plan of Study
Sample 5-Year Plan of Study , 2 Co-op

Year 1

Fall	Hours	Spring	Hours
ARTF 1000	1	MATH 1342	4
ARTF 1220 (with optional ARTF 1221)	2	ARTH 2210	4
Art and Design Fundamentals Elective 1	2	ARTG 1270 and ARTG 1271	4
MATH 1365	4	Art and Design Fundamentals Elective 2	2
MATH 1341	4	Art and Design Fundamentals Elective 3	2
ENGW 1111	4		
	17		**16**

Year 2

Fall	Hours	Spring	Hours
MATH 2321	4	MATH 2341	4
ARTG 1290 and ARTG 1291	4	ARTG 2252	4
ARTH 2215	4	Math elective	4
Elective	4	Elective	4
	16		**16**

Year 3

Fall	Hours	Spring	Hours	Summer 1	Hours
MATH 2331	4	Co-op	0	Co-op	0
ARTG 3350	4				
Elective	4				
Elective	4				
EEAM 2000	1				
	17		**0**		**0**

Year 4

Fall	Hours	Spring	Hours	Summer 1	Hours
MATH 3081	4	Co-op	0	Co-op	0
ARTG 2242	4				
Elective	4				
Elective	4				
	16		**0**		**0**

Year 5

Fall	Hours	Spring	Hours
ARTG 4550	4	Capstone	4
Art and Design Elective	4	Elective	4
Elective	4	Elective	4
Elective	4	Elective	4
	16		**16**

Total Hours: 130