Major in Information Technology

The Information Technology Major is designed to prepare students for employment involving information management, user experience design, and platform technologies. It covers fundamental and advanced IT topics to prepare graduates for joining the information technology workforce or starting and successfully completing a Master's degree in IT or related fields. Hands-on laboratories are an essential component of the program, where students put their classroom knowledge into practice.

Freshman Applicants:
Beginning in Fall 2021, NEIU, and implicitly the proposed Cybersecurity program, are test-optional. Standardized test scores are not required for admission to the University. Applicants, however, are encouraged to submit test scores in order to meet some scholarship and prerequisite requirements. Test scores also can be helpful with determining your placement in math and English courses. Scores will not be used to make an admissions decision. Applicants with a 2.5 cumulative high school grade-point average will be guaranteed admission.
Transfer Applicants:
Transfer students must have a cumulative grade point average (GPA) of 2.0 or higher on a 4.0 scale from all colleges, universities and trade schools attended. Upon admission, an evaluation of the prospective transfer student's credits will be undertaken to determine which and how many of the previously-earned credits will meet the degree requirements at Northeastern. High school transcript is required if the applicant has completed fewer than 24 semester hours of college credit.
International Applicants:
An international applicant must fulfill all of the admission requirements and submit all the required documents that domestic applicants do. Additionally, they must demonstrate that they meet eligibility requirements for:
• Non-immigrant student visa status
• English language proficiency: TOEFL (Paper-based TOEFL: 500, Computer-based TOEFL: 173, Internet-based TOEFL: 61), IELTS (Composite score of 6.0)

University Core Curriculum Requirements

General Education Distribution Area	Cr. Hrs.
Fine Arts (FA)* 2 courses, from at least two of the following areas of study: Art, CMT (Mass Media or Theatre), Music (includes Dance).	6
Humanities (HU)* 3 courses, from at least two of the following areas of study: CMT (Communication), English, Linguistics. Philosophy, Women's and Gender Studies, World Languages and Cultures, (Note: No more than two foreign language courses may be used to fulfill this requirement.)	9
Behavioral/Social Sciences (SB)* 3 courses, from at least two of the following areas of study: African & African American Studies, Anthropology, Computer Science, Economics, Geography & Environmental Studies, History, Justice Studies, Latino & Latin American Studies, Political Science, Psychology, Sociology, Social Work	9
Natural Sciences (NS and NSL)** 3 courses, from at least two of the following areas of study; one course must have a laboratory component (NSL): Biology, Chemistry, Earth Science, Environmental Science, Physics (Note: If an FYE ANTH that counts as Natural Science is taken, only one Biology course may be used for Natural Science).	9
Engaged Learning Experiences Students must complete, at Northeastern, three courses designated as Engaged Learning Experiences courses. One of the Engaged Learning Experiences courses must be at the 300-level, and one Engaged Learning Experiences course must be designated as "Boundary Crossing".	
Discipline Specific (ELE-DS) These courses have pre-requisites that are specific courses within a program of study. Discipline Specific courses give students a deeper understanding of how knowledge is created and applied in their field.	

Boundary Crossing (ELE-X)
These are courses that cross disciplinary boundaries and/or cross boundaries through engagements outside the classroom or University allowing students to see how knowledge gained in one field might inform other fields or other aspects of society.

Math/Quantitative Reasoning (MA)
1 Math course, that has intermediate Algebra as prerequisite OR is a course listed on the General Education Distributive Learning List of Approved Courses. Any 3 hour college level math course, beyond Intermediate Algebra, meets this requirement.

* Majors in Fine Arts, Humanities or Social/Behavioral Sciences, may waive up to 6 credit hours of General Education requirements in the corresponding distribution area.

** Majors in Natural Sciences may waive up to 9 credit hours of General Education requirements in the Natural Sciences distribution area.

Students should also be aware of all other university requirements to obtain a degree - NEIU requirements (http://catalog.neiu.edu/graduation-requirements/bachelors-degree/)

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Code	Title	Hours
Forty-eight hours of Information Technology coursework + Math 173 College Algebra		
Foundational Courses:		
CS-201	Discrete Structures	3
CS-200	Programming Fundamentals	4
CS-207	Object-Oriented Programming And Data Structures	5
Core Courses:		
CS-301	Computer Organization	3
CS-308	Operating Systems	3
CS-319	Writing Intensive Program: Fundamentals Of Software Engineering	3
CS-315	Modern Database Management	3
CS-331	Computer Networks	3
CS-339	Fundamentals Of Information Technology Project Management	3
CS-300	Client Side Web Development	3
CS-342	Introduction To Human Computer Interaction	3
CS-260	Computer Security	3
Select 2 from the following:		**6**
CS-347	Mobile Application Development	
CS-321	Server Side Web Development	
CS-317	Event-Driven Programming	
CS-334	Open Source Systems	
CS-348	Computer Ethics And Public Policy	
CS-390	Supervised Field Study I	
CS-360	Cybersecurity	
Select 1 additional 300-level CS course		**3**
Total Hours		**48**

This sample curricular map is provided to guide you in the planning of your progression for this major. This guide should not replace regular consultations with your program advisor. **All students need to fulfill the 120 credit hours minimum in order to graduate.** For specific recommendations of courses not identified, please consult your program advisor.

First Year		
Term 1		**Hours**
CS-201	Discrete Structures	3
CS-200	Programming Fundamentals	4

CS-342	Introduction To Human Computer Interaction	3
	Term Hours	**10**
Term 2		
CS-207	Object-Oriented Programming And Data Structures	5
CS-260	Computer Security	3
CS-301	Computer Organization	3
CS-315	Modern Database Management	3
	Term Hours	**14**
Second Year		
Term 1		
CS-339	Fundamentals Of Information Technology Project Management	3
CS-308	Operating Systems	3
CS-331	Computer Networks	3
CS-300	Client Side Web Development	3
	Term Hours	**12**
Term 2		
CS-319	Writing Intensive Program: Fundamentals Of Software Engineering	3
Elective		3
Electives		3
Elective		3
	Term Hours	**12**
	Total Hours:	**48**