

B.S. in Information Technology

(120 credits minimum)

First Year

1st Semester		Credits
IT 101	Introduction to Information Technology	3
CS 100	Roadmap to Computing	3
MATH 138	General Calculus I	3
ENGL 101	English Composition: Introduction to Academic Writing	3
Science Literacy GER (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/)		3
FYS SEM	First-Year Student Seminar	0
Term Credits		15

2nd Semester

CS 113	Introduction to Computer Science I	3
IT 120	Introduction to Network Technology	3
MATH 105	Elementary Probability and Statistics	3
Science Literacy with Lab GER (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/)		4
ENGL 102	English Composition: Introduction to Writing for Research	3
Term Credits		16

Second Year

1st Semester

IT 114	Advanced Programming for Information Technology	3
IT 201	Information Design Techniques	3
Social Science GER Elective (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/social-science-ger/)		3
General Elective 1		3
History and Humanities GER 200 level (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-200-level/)		3
Term Credits		15

2nd Semester

IT 202	Internet Applications	3
Specialization Course 1		3
Specialization Course 2		3
General Elective 2		3
YWCC 207	Computing & Effective Com	1
Term Credits		13

Third Year

1st Semester

IS 331	Database Design Management and Applications	3
History and Humanities GER 300+ level (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/)		3
Specialization Course 3		3
Specialization Course 4		3
IT 340	Introduction to System Administration	3
Term Credits		15

2nd Semester

IT 420	Computer Systems and Networks	3
COM 313 or COM 312	Technical Writing or Oral Presentations	3
IS 350	Computers, Society and Ethics	3

Specialization Course 5		3
Specialization Course 6		3
YWCC 307	Professional Dev in Computing	1
Term Credits		16
Fourth Year		
1st Semester		
IT 490	Systems Integration	3
Humanities and Social Science Senior Seminar GER (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/)		3
General Elective 3		3
Specialization Course 7		3
General Elective 4		3
Term Credits		15
2nd Semester		
IT 491	IT Capstone Project	3
Specialization Course 8		3
General Elective 5		3
General Elective 6		3
General Elective 7		3
Term Credits		15
Total Credits		120

Information Technology Electives

Code	Title	Credits
Information Technology Core		
Complete information technology/computer and information science courses that provide fundamental knowledge and practice in information technology functions, system development, and software.		36
IT Capstone Project		
Complete a culminating project ¹		3
Specialization Courses		
Select eight courses, focusing on an application area relevant to Information Technology		24
General Electives		
Select seven courses to be chosen in consultation with the advisor		21

¹ A culminating project experience that integrates the student's IT and specialization expertise. The IT Program strongly supports and encourages the student to implement this project in collaboration with NJIT industrial partners and/or NJIT's Enterprise Development Centers. In accordance with the need for the IT professional to have highly developed communication skills, the student will present the results of their projects at the completion of the project.

Co-op

In IT, [IT 311](http://catalog.njit.edu/search/?P=IT%20311) (<http://catalog.njit.edu/search/?P=IT%20311>) Co-op Work Experience I and [IT 411](http://catalog.njit.edu/search/?P=IT%20411) (<http://catalog.njit.edu/search/?P=IT%20411>) Co-op Work Experience can be taken for degree credit.

Criminal Justice and Law Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 230	Computer and Network Security	3
IT 330	Computer Forensic	3
IT 332	Digital Crime	3
IT 400	Information Technology and the Law	3
IT 430	Ethical Hacking for System Administrators	3

FRSC 201	Intro to Forensic Science	3
FRSC 307	Crime Scene Investigation & Lab	4
FRSC 359	Physical Methods of Forensic Analysis & Lab	4
R202 102	Criminology	3
R202 103	Intro Criminal Justice	3
R202 203	Police And Community	3
R202 221	Case Processing Law & Court	3
R202 223	Delinquency & Juvenile Justice	3
R202 313	Gender Crime and Justice	3

Management Information Systems Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 310	E-Commerce Technology	3
IS 265	Introduction to Information Systems	3
or MIS 245	Introduction to Management Information Systems	
IS 344	Computing Applications in Business	3
IS 390	Requirements Analysis and Systems Design	3
IS 455	IS Mgmt & Business Processes	3
IS 465	Advanced Information Systems	3
ACCT 115	Fundamentals of Financial Accounting	3
or ACCT 117	Principles Of Fin Accountng	
HRM 301	Organizational Behavior	3
MIS 363	Project Management for Managers	3
or MGMT 480	Managing Technology and Innovation	
MGMT 216	Business Data Analytics	3
MGMT 390	Principles of Business	3
MGMT 391	International Business	3
MRKT 330	Principles of Marketing	3
OM 375	Business Operations Management and Analytics	3

Game Development Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 265	Game Architecture and Design	3
IT 266	Game Modification Development	3
IT 366	2D Game Programming	3
IT 286	Foundations of Game Production	3
IT 487	Advanced Game Production	3
IT 360	Computer Graphics for Visual Effects	3
IT 380	Educational Software Design	3
IT 382	Game Design for XR	3
IT 383	Advanced Topics in Game Design for XR	3
IT 270	3D Modeling and Animation	3
CS 370	Introduction to Artificial Intelligence	3
AD 150	Color and Composition	3
DD 275	History of Games	3
DD 334	Simulated Environments	3

DD 403	Digital Sound and Music	3
STS 318	Educational Media Design	3

Immersive Media Systems Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 360	Computer Graphics for Visual Effects	3
IT 382	Game Design for XR	3
IT 270	3D Modeling and Animation	3
IS 270	Designing the Multimedia Experience	3
AD 150	Color and Composition	3
COM 303	Video Narrative	3
COM 369	Digital Poetry	3
DD 284	Video and Animation	3
DD 303	Foundations of Sound and Music	3
DD 334	Simulated Environments	3
DD 403	Digital Sound and Music	3
DD 442	Visual and Special Effects in Movies	3
COM 354	Designing Digital Media	3
COM 381	Electronic Music in Practice	3

Network and Information Security Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 220	Wireless Networks	3
IT 230	Computer and Network Security	3
IT 240	Scripting for System Administration	3
IT 310	E-Commerce Technology	3
IT 330	Computer Forensic	3
IT 331	Privacy and Information Technology	3
IT 332	Digital Crime	3
IT 342	Cloud Administration	3
IT 400	Information Technology and the Law	3
IT 430	Ethical Hacking for System Administrators	3
CS 332	Principles of Operating Systems	3
CS 357	Fundamentals of Network Security	3
SDET 335	Networks Applications for Software and Data Engineering Technology I	3
SDET 435	Networks Applications for Software and Data Engineering Technology II	3

Web Applications Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
IT 302	Advanced Internet Applications	3
IT 310	E-Commerce Technology	3
IT 342	Cloud Administration	3
IT 382	Game Design for XR	3
IS 117	Introduction to Website Development	3

IS 218	Building Web Applications	3
IS 219	Adv Website Development	3
IS 247	Designing the User Experience	3
IS 322	Mobile Applications: Design, Interface, Implementation	3
IS 333	Social Network Analysis	3
IS 373	Content Management Systems	3
IS 375	Discovering User Needs for UX	3
IS 392	Web Mining and Information Retrieval	3
IS 421	Advanced Web Applications	3
MGMT 480	Managing Technology and Innovation	3

See the **General Education Requirements** "Refer to the General Education Requirements for specific information for GER courses"

This curriculum represents the maximum number of credits per semester for which a student is advised to register. A full-time credit load is 12 credits.

First-year students are placed in a curriculum that positions them for success which may result in additional time needed to complete curriculum requirements. Continuing students should consult with their academic advisor to determine the appropriate credit load.