

# B.S. in Information Technology

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(120 credits minimum)

**First Year**

<b>1st Semester</b>		<b>Credits</b>
IT 101	Introduction to Information Technology	3
CS 100	Roadmap to Computing	3
MATH 138	General Calculus I	3
HUM 101	English Composition: Writing, Speaking, Thinking I	3
Science Literacy GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> )		3
FRSH SEM	First-Year Seminar	0
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

CS 113	Introduction to Computer Science	3
IT 120	Introduction to Network Technology	3
MATH 105	Elementary Probability and Statistics	3
Science Literacy with Lab GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/natural-science-ger/</a> )		4
HUM 102	English Composition: Writing, Speaking, Thinking II	3
<b>Term Credits</b>		<b>16</b>

**Second Year****1st Semester**

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

**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
<b>Term Credits</b>		<b>13</b>

**Third Year****1st Semester**

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

**2nd Semester**

IT 420	Computer Systems and Networks	3
ENG 352 or ENG 340	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
<b>Term Credits</b>		<b>16</b>
<b>Fourth Year</b>		
<b>1st Semester</b>		
IT 490	Systems Integration	3
Humanities and Social Science Senior Seminar GER ( <a href="http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/">http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/hss-capstone/</a> )		3
General Elective 3		3
Specialization Course 7		3
General Elective 4		3
<b>Term Credits</b>		<b>15</b>
<b>2nd Semester</b>		
IT 491	IT Capstone Project	3
Specialization Course 8		3
General Elective 5		3
General Elective 6		3
General Elective 7		3
<b>Term Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>120</b>

## Information Technology Electives

Code	Title	Credits
<b>Information Technology Core</b>		
Complete information technology/computer and information science courses that provide fundamental knowledge and practice in information technology functions, system development, and software.		36
<b>IT Capstone Project</b>		
Complete a culminating project <sup>1</sup>		3
<b>Specialization Courses</b>		
Select eight courses, focusing on an application area relevant to Information Technology <sup>2</sup>		24
<b>General Electives</b>		
Select seven courses to be chosen in consultation with the advisor		21

<sup>1</sup> 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>) Co-op Work Experience I and IT 411 (<http://catalog.njit.edu/search/?P=IT%20411>) Co-op Work Experience can be taken for degree credit.

## Criminal Justice and Law Specialization

(27 credits)

Code	Title	Credits
IT 220	Wireless Networks	3
IT 230	Computer and Network Security	3
IT 310	E-Commerce Technology	3
IT 330	Computer Forensic	3
IT 400	Information Technology and the Law	3
IT 430	Ethical Hacking for System Administrators	3

Select three of the following: 9

R202 203	Police And Community	3
R202 301	CJ Reserach Methods	
R202 102	Criminology	
R202 310	Case Proc Law Courts	
R202 331	Delinquency Juv Justice	
R202 202	Gender Crime & Justice	

**Total Credits** 27

## Management Information Systems Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following: 24		
ACCT 117	Principles Of Fin Accountng	3
HRM 301	Organizational Behavior	3
IS 265	Introduction to Information Systems	3
or MIS 245	Introduction to Management Information Systems	
IT 220	Wireless Networks	3
IT 302	Advanced Internet Applications	3
IT 310	E-Commerce Technology	3
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
MIS 363	Project Management for Managers	3
or MGMT 480	Managing Technology and Innovation	
MRKT 330	Principles of Marketing	3
OM 375	Bus Operations Mgmt & Analytic	3

## Game Development Specialization

(27 credits)

Code	Title	Credits
Select 9 of the following: 27		
IT 265	Game Architecture and Design	
CS 266	Game Modification Development	
or IT 266	Game Modification Development	
CS 276	2D Game Development	
or IT 276	Game Development	
AD 150	Color and Composition	
STS 318	Educational Media Design	
CS 280	Programming Language Concepts	
IT 386	3D Modeling and Animation	
or COM 335	3-D Modeling and Animation	
MATH 337	Linear Algebra	
COM 345	Character Modeling and Animation	
IT 286	Foundations of Game Production	
or COM 266	Foundations of Game Production	
IT 4XX	Game Development Workshop	
CS 366	3D Game Development	

IT 287	Advanced Game Production	
<b>Total Credits</b>		<b>27</b>

## Multimedia Specialization

(27 credits)

Code	Title	Credits
IS 270	Designing the Multimedia Experience	3
COM 335 or IT 386	3-D Modeling and Animation 3D Modeling and Animation	3
COM 350	Digital Video Production	3
STS 347	Introduction to Music	3
Select five of the following:		15
STS 349	Electronic Music in Practice	
COM 266 or IT 286	Foundations of Game Production Foundations of Game Production	
COM 303	Video Narrative	
COM 345	Character Modeling and Animation	
COM 351	Documentary Studies	
COM 352	Photojournalism	
COM 369	Digital Poetry	
COM 376	Game Design Studio	
IT 265	Game Architecture and Design	
IT 266 or CS 266	Game Modification Development Game Modification Development	
IT 276 or CS 276	Game Development 2D Game Development	
CS 366	3D Game Development	
AD 150	Color and Composition	
ENG 353	Composing Documents for Print	
ENG 354	Composing Documents for the Web	
ENG 355	Television News Writing and Production	
IS 373	Content Management Systems	
STS 318	Educational Media Design	
<b>Total Credits</b>		<b>27</b>

## Network and Information Security Specialization

(27 credits)

Code	Title	Credits
Select 9 of the following:		27
IT 220	Wireless Networks	
IT 230	Computer and Network Security	
IT 310	E-Commerce Technology	
IT 330	Computer Forensic	
IT 331	Privacy and Information Technology	
IT 332	Digital Crime	
IT 400	Information Technology and the Law	
IT 430	Ethical Hacking for System Administrators	
CS 332	Principles of Operating Systems	
CS 357	Fundamentals of Network Security	

CS 458

Technologies-Network Security

**Total Credits****27**

## Web Applications Specialization

(24 credits)

Code	Title	Credits
Select 8 of the following:		
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 373	Content Management Systems	3
IS 375	Discovering User Needs for UX	3
IS 392	Web Mining and Information Retrieval	3
or IS 421	Advanced Web Applications	
IT 302	Advanced Internet Applications	3
IT 310	E-Commerce Technology	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.*