

# B.S. in Human-Computer Interaction

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(120 credits)

**First Year**

<b>1st Semester</b>		<b>Credits</b>
CS 100	Roadmap to Computing	3
ENGL 101	English Composition: Introduction to Academic Writing	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
MATH 101 or MATH 138	Foundations of Mathematics for the Liberal Arts or General Calculus I	3
IS 117	Introduction to Website Development	3
FYS SEM	First-Year Student Seminar	0
<b>Term Credits</b>		<b>16</b>

**2nd Semester**

IS 218	Building Web Applications	3
PSY 210 or R830 101	Introduction to Psychology or Principles Of Psychology I	3
ENGL 102	English Composition: Introduction to Writing for Research	3
IS 247	Designing the User Experience	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
<b>Term Credits</b>		<b>16</b>

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

General Elective 1 <sup>1</sup>		3
Select one of the following:		3
AD 150	Color and Composition	
R085 102	Design Fundamentals	
R085 103	3-D Design Fund	
R080 121	Intro To Drawing	
MATH 105	Elementary Probability and Statistics	3
IS 350	Computers, Society and Ethics	3
R830 102	Prin Of Psychology	3
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

HCI Specialization Elective 1		3
IS 375	Discovering User Needs for UX	3
R830 301	Stat Meth Cog & Beh	4
R830 304	Cognitive Processes	3
YWCC 207	Computing & Effective Com	1
<b>Term Credits</b>		<b>14</b>

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

IS 331	Database Design Management and Applications	3
IS 448	Usability & Measuring UX	3
IE 355 or AD 201	Human Factors or Human Factors/Ergonomics	3
General Elective 2 <sup>2</sup>		3
IS 390	Requirements Analysis and Systems Design (General Elective 2)	3
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

General Elective 3 <sup>2</sup>		3
Select one of the following:		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> ) <sup>1</sup>		
General Elective 4 <sup>2</sup>		
R830 302	Exp Meth Cog & Beh	4
COM 312 or COM 313	Oral Presentations or Technical Writing	3
YWCC 307	Professional Dev in Computing	1
<b>Term Credits</b>		<b>14</b>

**Fourth Year****1st Semester**

General Elective 5 <sup>2</sup>		3
General Elective 6 <sup>2</sup>		3
HCI Specialization Elective 2		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
IE 492 or ENTR 210	Engineering Management or Introduction to Entrepreneurship	3
<b>Term Credits</b>		<b>15</b>

**2nd Semester**

IS 491 or IT 491	Senior Project - IS or IT Capstone Project	3
General Elective 7 <sup>2</sup>		3
General Elective 8 <sup>2</sup>		3
HCI Specialization Elective 3		3
HCI Specialization Elective 4		3
<b>Term Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> If already taking a 300-level Humanities & History GER course as part of the HCI Specialization, then you may take a general elective here.

<sup>2</sup> Independent Study (optionally leading to the Undergraduate Thesis Option): We encourage you to consider an independent study (IS 488) as part of your electives as juniors and seniors. You could then continue with an Undergraduate Thesis (IS 489), which optionally can substitute for IS 491 or IT 491. The thesis option is explained further on the Informatics Department web site. Please consult your advisor as early

**HCI Specializations:**

Students choose, with Advisor approval a coherent sequence of 4 courses, chose from one of the HCI specializations given below.

**Cognitive Design**

Code	Title	Credits
Select four of the following:		12
STS 351	Minds and Machines	
PSY 359	Foundations of Cyberpsychology	
R830 103	Cognitive Science	
R830 104	Cognitive Science II	
R830 324	Psych Of Adolescent	
R830 335	Social Psychology	
R830 346	Psychology Of Language	
R830 354	Adult & Aging	
R830 371	Psychology & Personality	
R830 405	Psych Of Emotion	
R830 410	Perceptual Dev	

R830 411	Intro To Cog Neurosc
R830 424	Health Psychology
R830 431	Media Psych

## Game Design and Production

Code	Title	Credits
Select two of the following:		12
IT 201	Information Design Techniques	3
IT 265	Game Architecture and Design	3
Choose two remaining electives from among the following. You may take both courses from one grouping or individual courses from two different groupings.		
For students who want to focus on designing games in existing engines/development environments, consider these courses:		
IT 286	Foundations of Game Production	
IT 287	Advanced Game Production	
For students who are more artistic, design or asset creation focused, consider these courses:		
IT 386	3D Modeling and Animation	
For students who want to be challenged with C/C++ programming to develop their own 2D and 3D games, consider these courses:		
IT 266	Game Modification Development	
IT 276	Game Development	
Students may also want to consider these interesting Digital Design courses:		
DD 275	History of Games	
DD 301	Acting Fundamentals for Animators	

## Graphical Arts Design

Code	Title	Credits
Select four of the following, which were not taken to fulfill other requirements:		12
AD 112	Communication in Art and Design - Digital Media <sup>1</sup>	
AD 150	Color and Composition	
DD 284	Video and Animation	
DD 321	Interactive and Reactive Environments	
ID 203	Past, Present and Future of Design	
R080 121	Intro To Drawing <sup>1</sup>	
R085 102	Design Fundamentals	
R085 103	3-D Design Fund	

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