INFORMATION AND COMMUNICATION TECHNOLOGY (SOFTWARE DEVELOPMENT) - BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGY

Pathway: 4-yr Bachelor's Degree
A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra. The contents and order of this roadmap may vary depending on initial student placement in mathematics and previous English coursework that was transferred in. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

First Year

Fall

		Credits
ICT 141	IT Essentials I: A+ Certification Training Focused on the Hardware Exam	3
Elective Course [4]		3
General Education Area I [1]		4
General Education Area II (MATH 1220G or Higher) [1]		3-4
General Education IV [1]		3
	Credits	**16-17**

Spring

ICT 145	Network Essentials: N+ Certification Training	3
ICT 161	IT Essentials II: A+ Certification Training focused on the Software exam	3
General Education Area I [1]		3
General Education Area III [1]		4
General Education Area V [1]		3
	Credits	**16**

Second Year

Fall

ICT 152	Java Programming	3
ICT 220	Discrete Math and Its Relationship to Information Technology	3
General Education Area I [1]		3
General Education Area VI [1]		3
Elective Course [4]		3
	Credits	**15**

Spring

ICT 267	Information Security+ Certification Preparation	3
ICT 280	Introduction to Web Development	3
General Education Area III or IV [1]		3-4
General Education Elective [1]		3
Elective Course [4]		3
	Credits	**15-16**

Third Year

Fall

ICT 360	Operating Systems for ICT	3
ICT 377	Computer Networking I	3
Elective Course [4]		3
Elective Course [4]		3
Elective Course [4]		3
	Credits	**15**

Spring

ICT 320	Introduction to Internet Protocols	3
ICT 350V	Introduction to Personal Computer Security and Privacy [2]	3
ICT 355	Linux System Administration	3
ICT 364	Windows Enterprise Administration	3
Viewing a Wider World Elective [2]		3
	Credits	**15**

Fourth Year

Fall

ICT 362	Software Technology II	3
ICT 435	Senior Project	3
ICT 450	Ethical Hacking	3
E T 483	Mobile App Programming and Development	3
ICT 458	Web Development and Database Applications	3
	Credits	**15**

Spring

ICT 372	Software Engineering and Design	3
ICT 457	Introduction to Information Security Technology	3
ICT 460	Advanced Software Development Concepts	3
Viewing a Wider World Elective [2]		3
Electives to bring total to 120 credits (if necessary) [4]		1-0
	Credits	**13-12**
	Total Credits	**120-121**

[1] See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a complete list of courses. The number of credits provided assumes MATH 1220G College Algebra placement or higher.

[2] The ICT 350V Introduction to Personal Computer Security and Privacy course is part of the required curriculum for the ICT degree. It does not count towards the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) Requirements (6 credits). Visit the c (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext)atalog's Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section for a complete list of Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) Requirements. These courses will form part of the required 48 upper-level credit hours taken as part of the ICT program at NMSU.

[3] The **provided selection of Technical Electives** will lead to an ICT concentration on **Software Development**, one of the three concentration options. See the NMSU Catalog for information on other concentration options. Concentrations are *optional* educational sequences that students may choose to focus on in IT-related areas. A Technical Electives pre-approved list for each concentration is provided in this catalog.

4   **Elective** credit may vary based on prerequisites, dual credit, AP credit, double majors, or minor coursework. The amount indicated in the requirements list is needed to bring the total to 120 credits and may appear in variable form based on the degree. However, students may need to complete more or less on a case-by-case basis, and students should discuss elective requirements with their academic advisor.

Pathway: 2+2 Bachelor's Degree

First Year		Credits
Elective Credits (include General Education credits) [4]		30
	Credits	**30**
Second Year		
Elective Credits (include General Education credits) [4]		33
	Credits	**33**
Third Year		
Fall		
ICT 141	IT Essentials I: A+ Certification Training Focused on the Hardware Exam	3
ICT 152	Java Programming	3
ICT 220	Discrete Math and Its Relationship to Information Technology	3
ICT 360	Operating Systems for ICT	3
ICT 377	Computer Networking I	3
	Credits	**15**
Spring		
ICT 320	Introduction to Internet Protocols	3
ICT 350V	Introduction to Personal Computer Security and Privacy	3
ICT 355	Linux System Administration	3
ICT 364	Windows Enterprise Administration	3
Viewing a Wider World Elective [2]		3
	Credits	**15**
Fourth Year		
Fall		
E T 483	Mobile App Programming and Development [3]	3
ICT 362	Software Technology II	3
ICT 435	Senior Project	3
ICT 450	Ethical Hacking	3
ICT 458	Web Development and Database Applications [3]	3
	Credits	**15**
Spring		
ICT 372	Software Engineering and Design [3]	3
ICT 457	Introduction to Information Security Technology	3
ICT 460	Advanced Software Development Concepts	3
Viewing a Wider World [2]		3
	Credits	**12**
	Total Credits	**120**

1   See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a complete list of courses. The number of credits provided assumes MATH 1220G College Algebra placement or higher.

2   The ICT 350V Introduction to Personal Computer Security and Privacy course is part of the required curriculum for the ICT degree. It does not count towards the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) Requirements (6 credits). Visit the c (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext)atalog's Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section for a complete list of Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) Requirements. These courses will form part of the required 48 upper-level credit hours taken as part of the ICT program at NMSU.

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