

# INFORMATION AND COMMUNICATION TECHNOLOGY - BACHELOR OF INFORMATION AND COMMUNICATION TECHNOLOGY

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

These roadmaps assume student placement in MATH 1220G College Algebra or higher. The contents and order of this roadmap may vary depending on initial student placement in mathematics and previous coursework. 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 and summer semester and may be subject to modification or change.

All Information and Communication Technology requirements must be completed with a C- or higher grade.

First Year		
Fall		Credits
ICT 141	IT Essentials I: A+ Certification Training Focused on the Hardware Exam	3
Elective Course <sup>4</sup>		3
General Education Area I <sup>1</sup>		4
General Education Area II (MATH 1220G or Higher) <sup>1</sup>		3-4
General Education IV <sup>1</sup>		3
<b>Credits</b>		<b>16-17</b>

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 <sup>1</sup>		3
General Education Area III <sup>1</sup>		4
General Education Area V <sup>1</sup>		3
<b>Credits</b>		<b>16</b>

Second Year		
Fall		Credits
ICT 152	Java Programming	3
ICT 220	Discrete Math and Its Relationship to Information Technology	3
General Education Area I <sup>1</sup>		3
General Education Area VI <sup>1</sup>		3
Elective Course <sup>4</sup>		3
<b>Credits</b>		<b>15</b>

Spring		
ICT 267	Information Security+ Certification Preparation	3
ICT 280	Introduction to Web Development	3
General Education Area III or IV <sup>1</sup>		3-4
General Education Elective <sup>1</sup>		3
Elective Course <sup>4</sup>		3
<b>Credits</b>		<b>15-16</b>

Third Year		
Fall		Credits
ICT 360	Operating Systems for ICT	3
ICT 377	Computer Networking I	3
Elective Course <sup>4</sup>		3
Elective Course <sup>4</sup>		3
Elective Course <sup>4</sup>		3
<b>Credits</b>		<b>15</b>

Spring		
ICT 320	Introduction to Internet Protocols	3
ICT 350V	Introduction to Personal Computer Security and Privacy <sup>2</sup>	3
ICT 355	Linux System Administration	3
ICT 364	Windows Enterprise Administration	3
Technical Elective (from pre-approved list) <sup>3</sup>		3
<b>Credits</b>		<b>15</b>

Fourth Year		
Fall		Credits
ICT 362	Software Technology II	3
ICT 435	Senior Project	3
ICT 450	Ethical Hacking	3
Technical Elective (from pre-approved list) <sup>3</sup>		3
Technical Elective (from pre-approved list) <sup>3</sup>		3
<b>Credits</b>		<b>15</b>

Spring		
ICT 457	Information Security Principles	3
Electives to bring total to 120 credits (if necessary) <sup>4</sup>		1-0
Technical Elective (from pre-approved list) <sup>3</sup>		3
Viewing a Wider World <sup>2</sup>		6
<b>Credits</b>		<b>13-12</b>
<b>Total Credits</b>		<b>120-121</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> The **judicious selection of Technical Electives** may lead to an ICT concentration on Cyber Defense, Network Technologies, or Software Development without the need for additional credits. Concentrations are *optional* educational sequences that students may choose to focus on in IT-related areas. A Technical Electives pre-approved list is provided in this catalog.

<sup>4</sup> **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

### A Suggested Plan of Study for Students

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All Information and Communication Technology requirements must be completed with a C- or higher grade.

First Year		Credits
Elective Credits (include General Education credits) <sup>1,4</sup>		30
<b>Credits</b>		<b>30</b>
Second Year		
Elective Credits (include General Education credits) <sup>1,4</sup>		33
<b>Credits</b>		<b>33</b>
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
<b>Credits</b>		<b>15</b>
Spring		
ICT 320	Introduction to Internet Protocols	3
ICT 350V	Introduction to Personal Computer Security and Privacy <sup>2</sup>	3
ICT 355	Linux System Administration	3
ICT 364	Windows Enterprise Administration	3
Technical Elective (from pre-approved list) <sup>3</sup>		3
<b>Credits</b>		<b>15</b>
Fourth Year		
Fall		
ICT 362	Software Technology II	3
ICT 435	Senior Project	3
ICT 450	Ethical Hacking	3
Technical Elective (from pre-approved list) <sup>3</sup>		6
<b>Credits</b>		<b>15</b>
Spring		
ICT 457	Information Security Principles	3
Technical Elective (from pre-approved list) <sup>3</sup>		3
Viewing a Wider World <sup>2</sup>		6
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>120</b>

- <sup>2</sup> 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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