

# CYBERSECURITY - BACHELOR OF SCIENCE

## A Suggested Plan of Study For Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and english. 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

Semester 1		Credits
ENGL 1110G	Composition I	4
or ENGL 1110H	or Composition I Honors	
Choose one from the following: <sup>1</sup>		3-4
MATH 1511G	Calculus and Analytic Geometry I	
or MATH 1511H	or Calculus and Analytic Geometry I Honors	
MATH 1430G	Applications of Calculus I	
Area III: Laboratory Science Course <sup>2</sup>		4
Area IV: Social/Behavioral Sciences Course <sup>2</sup>		3
<b>Credits</b>		<b>14-15</b>

### Semester 2

Choose one from the following:		3
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
HNRS 2175G	Introduction to Communication Honors	
MATH 1521G	Calculus and Analytic Geometry II	4
or MATH 1521H	or Calculus and Analytic Geometry II Honors	
CSCI 1720	Computer Science I	4
Choose one from the following:		3
ENGL 2130G	Advanced Composition	
ENGL 2210G	Professional and Technical Communication	
or ENGL 2210H	or Professional and Technical Communication	
ENGL 2215G	Advanced Technical and Professional Communication	
Area V: Humanities Course <sup>2</sup>		3
<b>Credits</b>		<b>17</b>

### Second Year

Semester 1		Credits
Area VI: Creative and Fine Arts Course <sup>2</sup>		3
Area III: Laboratory Sciences Course <sup>2</sup>		4
CSCI 2210	Object-Oriented Programming	4
CSCI 2220	Introduction to Data Structures and Algorithms	4
<b>Credits</b>		<b>15</b>

### Semester 2

VWW <sup>3,5</sup>		3
CSCI 2230	Assembly Language and Machine Organization	4
or E E 212	or Introduction to Computer Organization	
CSCI 2310	Discrete Mathematics for Computer Science	4
Choose one from the following:		3
E E 200	Linear Algebra, Probability and Statistics Applications	
STAT 3110	Statistics for Engineers and Scientists	

STAT 4210	Probability: Theory and Applications	
<b>Credits</b>		<b>14</b>
<b>Third Year</b>		
<b>Semester 1</b>		
Viewing a Wider World Course <sup>3</sup>		3
CSCI 3710	Software Development	4
BCIS 482	Management of Information Security	3
CSCI 4235	Cellular Networks and Mobile Computing	3
CSCI 4220	Cloud and Edge Computing (Recommended)	3
<b>Credits</b>		<b>16</b>
<b>Semester 2</b>		
Viewing a Wider World Course <sup>3</sup>		3
CSCI 4205	Computer Security	3
CJUS 412	Introduction to Security Technology and Loss Prevention	3
CSCI 4240	Software Reverse Engineering	3
Elective Course <sup>4</sup>		3
<b>Credits</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Semester 1</b>		
CSCI 4120	Operating Systems I	3
CSCI 4140	Database Management Systems I	3
CSCI 4130	Linux System Administration	3
ICT 339	Introduction to Digital Forensics and Incident Response	3
Elective Course <sup>4</sup>		3
<b>Credits</b>		<b>15</b>
<b>Semester 2</b>		
CSCI 4110	Computing Ethics and Social Implications of Computing	1
CSCI 4206	Hardware Security	3
CSCI 4225	Introduction to Cryptography	3
CSCI 4245	Computer Networks I	3
CSCI 4980	Senior Project	4
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>120-121</b>

<sup>1</sup> MATH 1511G Calculus and Analytic Geometry I or MATH 1430G Applications of Calculus I is the starting requirement for this degree but students may need to take prerequisites before enrolling.

*\*If a student tests into MATH 1521G Calculus and Analytic Geometry II then elective credits can replace this requirement in the roadmap.*

<sup>2</sup> See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses.

<sup>3</sup> See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses.

<sup>4</sup> Any course offered by the university. Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

<sup>5</sup> Students need to fill in one credit to meet the requirement of 15 credit hours.