

## Computer Security & Information Assurance Major

### B.S. in Computer Security & Information Assurance - Curriculum Map 2019-2020 Catalog

or both (see requirements below) no later than the end of their sophomore year.

Students must declare either the Forensics Concentration, the Information Assurance Management Concentration,

Course	Cr. Comp.	Course	Cr. Comp.
<b>FRESHMAN</b>			
<b>Fall</b>		<b>Spring</b>	
CS 100 Foundations of Computer Science and Information Assurance	3	CS 140 Programming and Computing	4
CS 111 Personal & Professional Cyber Safety	1	EN 102 Composition and Literature II	3
EN 101 Composition and Literature I	3	General Education History ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartshumanitiestext">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartshumanitiestext</a> )	3
MA 107 Precalculus Mathematics <sup>1</sup>	4	PY 211 Introduction to Psychology (General Education Social Science)	3
General Education Leadership ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal8leadershiptext">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal8leadershiptext</a> )	1-3	Free Elective	3
General Education Arts & Humanities ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartsh">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartsh</a> )	3		
Fall Semester Total Cr.:		Spring Semester Total Cr.:	
15-17		16	
<b>SOPHOMORE</b>			
<b>Fall</b>		<b>Spring</b>	
CS 228 Introduction to Data Structures	3	CS 212 Assembly Language & Reverse Engineering	3
IA 241 Cyberlaw and Cybercrime	3	CS 260 Data Communications and Networks	3
MA 240 Introduction to Number Theory and Cryptology (General Education Math)	3	MA 318 Cryptology (General Education Math)	3
MG 341 Business Law I (General Education Ethics)	3	General Education Lab Science ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal4naturalsciencetext">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal4naturalsciencetext</a> )	4
General Education Lab Science ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal4naturalsciencetext">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal4naturalsciencetext</a> )	4	Free Elective	3
Fall Semester Total Cr.:		Spring Semester Total Cr.:	
16		16	
<b>JUNIOR</b>			
<b>Fall</b>		<b>Spring</b>	
DF 242 Computer Forensics I	4	CS 240 Database Management	3
IA 340 Introduction to Information Assurance Concentration Elective	3	IA 342 Management of Information Assurance	3
EN 112 Public Speaking	3	QM 213 Business and Economic Statistics I or MA 232 Elementary Statistics	3
Free Elective	3	Concentration Elective	3
		Concentration Elective	3
Fall Semester Total Cr.:		Spring Semester Total Cr.:	
16		15	
<b>SENIOR</b>			
<b>Fall</b>		<b>Spring</b>	
CS 301 Software Engineering	3	IA 456 Cyber Defense Practicum (Capstone)	3
IA 455 Contemporary Issues in Information Assurance	3	Concentration Elective	3
Concentration Elective	3	Concentration Elective	3

General Education Literature ( <a href="http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartsh">http://catalog.norwich.edu/archives/2019-20/residentialprograms/catalog/generaleducationgoals/#goal3humanexpressioninliteraturehistoryartsh</a> )	3	Free Elective	3
Free Elective	3	Free Elective	3
Fall Semester Total Cr.:	15	Spring Semester Total Cr.:	15
TOTAL CREDITS FOR THIS MAJOR: 124-126			

- 1 Requires a math placement score of 2. Students scoring below 2 must successfully complete the appropriate necessary prerequisite math courses first. With a math placement score of 3, the MA 107 requirement may be waived and the credit hours replaced with a free elective.

### Concentrations

#### Forensics Concentration 2019-2020 Catalog

All courses used to fulfill a concentration must be completed with a grade of C or higher.

#### Required Courses

DF 311	Network Forensics	3
DF 312	Malware Forensics	3
DF 411	Cyber Investigation	3
DF 425	Advanced Digital Forensics	3

#### Elective Courses - Choose any non-duplicate two of the following courses:

CS 221	GUI Programming	3
CS 250	Virtual Systems Administration	3
CS 270	Operating Systems & Parallelism	3
CS 330	Ethics in Computing and Technology	3
CS 406	Special Topics in Computer Science <sup>1</sup>	3
CS 407	Politics of Cyberspace	3
CS 410	Computing Internship <sup>1,2,3</sup>	1-6
IA 360	Network Security	3
MG 309	Management of Organizations	3
MG 346	Business Law II	3
MG 351	Organizational Behavior	3
PY 234	Forensic Psychology	3

Total Cr. 18

- 1 May be taken more than once for credit by approval, contingent on different Topic titles.  
 2 Maximum of 18 credits allowed.  
 3 Earned internship credit may be applied to not more than two required CS/CSIA major technical/concentration electives.

#### Information Assurance Management Concentration 2019-2020 Catalog

All courses used to fulfill a concentration must be completed with a grade of C or higher.

#### Required Courses

CS 270	Operating Systems & Parallelism	3
IA 360	Network Security	3
MG 309	Management of Organizations	3
MG 351	Organizational Behavior	3

#### Elective Courses - Choose any non-duplicate two of the following:

CS 221	GUI Programming	3
CS 250	Virtual Systems Administration	3
CS 330	Ethics in Computing and Technology	3
CS 406	Special Topics in Computer Science <sup>1</sup>	3
CS 407	Politics of Cyberspace	3
CS 410	Computing Internship <sup>1,2,3</sup>	1-6
DF 311	Network Forensics	3
DF 312	Malware Forensics	3

DF 411	Cyber Investigation	3
DF 425	Advanced Digital Forensics	3
MG 346	Business Law II	3
PY 234	Forensic Psychology	3
Total Cr.		18

- 1 May be taken more than once for credit by approval, contingent on different Topic titles.  
 2 Maximum 18 credits allowed  
 3 Earned internship credit may be applied to not more than two required CS/CSIA major technical/concentration electives.