

Advising sheet for: MAJOR IN CYBERSECURITY

Assumption University, Department of Mathematics and Computer Science

Checklist

The major consists of a total of fourteen required courses: one course in Statistics, three courses in Computer Science; four Cybersecurity Core Courses; and six advanced courses in Cybersecurity including an Independent Cybersecurity Project or Internship.

We recommend students interested in the cybersecurity major take CYB-115 in their first year at Assumption because it is part of the major required sequence CYB-115, 230, 235.

Required Courses (14)

Completed	Requirement	Course	Prerequisite	Semester Planned
	Cybersecurity Fundamentals	CYB-115		
	Intro. to Programming; or Statistics Programming	CSC-117 (Fall); or CSC-120		
	Statistics	ECO-115; PSY-224; or SOC-300 (Fall)	BUS-100 (for ECO-115 only)	
	Networking and Data Communications	CSC/CYB-230 (Fall)	CYB-115 or CSC-117 or CSC-120	
	Securing Wired and Wireless Networks	CSC/CYB-235 (Spring)	CYB-115 and CSC/CYB-230	
	Operating Systems Administration	CYB-265 (Fall even years)	CYB-115	
	Operating Systems	CSC-303 (Spring odd years)	CSC-260 and CSC-305; or declared CYB major	
	Database Management Systems	CSC-321 (Spring)	CSC-305; or declared CYB major	
	Cryptography	CYB-304 (Spring even years)	CYB-235	
	Software and Application Security	CYB-318 (Fall odd years)	CYB-235	
	Computer, Network Forensics and Digital Investigations	CYB-328 (Fall odd years)	CYB-235	
	Ethical Hacking	CYB-338 (Fall even years)	CYB-235	
	Preparing for Cyber Disasters	CYB-401 (Spring even years)	CYB-235	
	Independent Cybersecurity Project or Internship	CYB-438	Junior or senior standing in CYB major	

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A suggested schedule - for students entering in Fall 2021, or any year.

See Assumption's Catalog for additional information, e.g. Core Curriculum requirements.

First Year: Fall 2021	Spring 2022
1. CYB-115 Cyber. Fundamentals [any term] <i>CYB-115 should be completed by end of first year.</i>	1. Statistics ECO-115 [any term], or PSY-224 [any term], or SOC-300 [Fall]
2. CSC-117 Intro to Programming [Fall only] Or CSC-120 Stats Programming [any term]	2.
3.	3.
4.	4.
5.	5.
6. BUS-100 Intro. to Excel (1-credit)	

Second Year: Fall 2022	Spring 2023
1. CSC/CYB-230 Networking and Data Communications [Fall]	1. CSC/CYB-235 Securing Wired and Wireless Networks [Spring]
2. CYB-265 Operating Systems Administration [Fall even] <i>Move to third year if odd year.</i>	2. CSC-303 Operating Systems [Spring odd] <i>Move to third year if even year.</i>
3.	3. CSC-321 Database Mgt. Systems [Spring]
4.	4.
5.	5.

Third Year: Fall 2023	Spring 2024
1. CYB-328 Computer, Network Forensics and Digital Investigations [Fall odd] <i>Move to fourth year if even year.</i>	1. CYB-401 Preparing for Cyber Disasters [Spring even] <i>Move to fourth year if odd year.</i>
2. CYB-318 Software and Application Security [Fall odd] <i>Move to fourth year if even year.</i>	2. CYB-304 Cryptography [Spring even] <i>Move to fourth year if odd year.</i>
3.	3.
4.	4.
5.	5.

Fourth Year: Fall 2024	Spring 2025
1. CYB-338 Ethical Hacking [Fall even] <i>Move to third year if odd year.</i>	1. CYB-438 Independent Cybersecurity Project or Internship
2.	2.
3.	3.
4.	4.
5.	5.