

BS in Cybersecurity - BS-CYSC

Academic year 2024-2025

BS in Cybersecurity - BS-CYSC Learning Outcomes**Cybersecurity Fundamentals**

Demonstrate foundational and advanced knowledge of cyber infrastructures and cybersecurity principles.

MEASURES	RESULTS	ACTIONS
Basic scripting and programming skills Direct - Exam (Course) <i>UNIX/C++: COSC 3306</i> Target 80% of the students will achieve a score of 3 or above.	NOT MET 3306 statistics.docx Analysis Spring 2025: Size = 29 Percentage = 62.1% Fall 2024: Size = 83 Percentage = 81.9% For Spring 2025, we revised the prerequisite of this course from none to a B or better grade in COSC 1337. However, there are still new freshmen students and transfer students advised by the advising center to take this course for various reasons. Therefore, the pass rate is lower. We will monitor next year after the advising center is fully updated. No actions were deemed necessary this year.	<i>No actions have been added.</i>
Basic Operating System Concepts and Theory Direct - Exam (Course) <i>Operating Systems: COSC 4302</i> Target 60% of the students will score 2 out of 5 or above.	MET 4302 final data spring 2025 Fall 2024.docx Analysis Spring 2025: Size = 20 Percentage = 60% Fall 2024: Size = 25 Percentage = 60% All criteria met their direct assessment targets.	<i>No actions have been added.</i>
Basic Networking Technology and Protocols Direct - Exam (Course) <i>Computer Networks: CPSC 4317</i> Target 60% of the students will score 2.5 out of 5 or above.	MET cpsc 4317 final data Fall 2024.docx Analysis Size = 63 Percentage = 66.7% All criteria met their direct assessment targets.	<i>No actions have been added.</i>

<p>Software; Systems Programming</p> <p>Direct - Exam (Course)</p> <p><i>Software Engineering: CPSC 4360</i></p> <p>Target</p> <p>80% of the students will score 2.9 out of 5 or above.</p>	<p>NOT MET</p> <p>CPSC 4360 FinalExamFall2024.JPG</p> <p>CPSC 4360 FinalExamSpring2025.JPG</p> <p>Analysis</p> <p>Spring 2025: Size = 39 Percentage = 87.2%</p> <p>Fall 2024: Size = 47 Percentage = 78.7%</p> <p>Spring 2025 met the target. Fall 2024 was very close to meeting the target, so no actions were deemed necessary this year. We will monitor next year.</p>	<p><i>No actions have been added.</i></p>
<p>Basic Cybersecurity Concepts and Principles</p> <p>Direct - Assignment</p> <p><i>Cybersecurity: Systems: CPSC 4363</i></p> <p>Target</p> <p>80% of the students will score 4 out of 5 or above.</p>	<p>MET</p> <p>CPSC 4363 HW1 Data Fall 2024.png</p> <p>CPSC 4363 Quiz1 Data Fall 2024.png</p> <p>Analysis</p> <p>Size = 43 Quiz 1 Percentage = 90.7% Homework 1 Percentage = 81.4% All criteria met their direct assessment targets.</p>	<p><i>No actions have been added.</i></p>
<p>IT System Components; Embedded Systems</p> <p>Direct - Exam (Course)</p> <p><i>Computer Organization: COSC 2325</i></p> <p>Target</p> <p>80% of the students will score 2.5 out of 5 or above.</p>	<p>MET</p> <p>cosc 2325 final data Fall 2024.png</p> <p>cosc 2325 final data Spring 2025.png</p> <p>Analysis</p> <p>Spring 2025: Size = 49 Percentage = 83.7%</p> <p>Fall 2024: Size = 32 Percentage = 84.4%</p> <p>All criteria met their direct assessment targets.</p>	<p><i>No actions have been added.</i></p>
<p>Mobile Technologies</p> <p>Direct - Assignment</p> <p><i>Android Programming: CPSC 4326</i></p> <p>Target</p> <p>80% of the students will score 4 out of 5 or above.</p>	<p>MET</p> <p>stats cpsc 4326 summer 24.jpg</p> <p>Analysis</p> <p>Size = 7 Percentage = 85.7%</p> <p>All criteria met their direct assessment targets.</p>	<p><i>No actions have been added.</i></p>

Network and System Administration

Configure and administer secure networks, operating systems, and databases using foundational concepts and best practices.

MEASURES	RESULTS	ACTIONS
Network Secure Admin and Operating System Admin Direct - Exam (Course) <i>Network System Administration: CPSC 4315</i> Target 80% of the students will score 4 out of 5 or above.	MET cpsc 4315 final data Spring 2025.png Analysis Size = 42 Percentage = 83.3% All criteria met their direct assessment targets.	<i>No actions have been added.</i>
Databases; Database Management Systems Direct - Exam (Course) <i>Database Design: CPSC 4340</i> Target 70% of the students will score 2 out of 5 or above.	MET CPSC 4340 exam Statistics.pdf Analysis Size = 56 Percentage = 73.2% All criteria met their direct assessment targets.	<i>No actions have been added.</i>

Secure Design and Evaluation

Apply secure coding practices and software analysis techniques to develop, analyze, and test software, web, and mobile applications.

MEASURES	RESULTS	ACTIONS
Secure Programming Practice Direct - Exam (Course) <i>Secure Software Engineering: CPSC 4361</i> Target 70% of the students will score 3.5 out of 5 or above.	MET CPSC 4361 Final Data Fall 2024.png Analysis Size = 19 Percentage = 73.7% All criteria met their direct assessment targets.	<i>No actions have been added.</i>

Web Application Security; Software Security Analysis Direct - Assignment <i>Cybersecurity: Systems: CPSC 4363</i> Target 80% of the students will score 3 out of 5 or above.	MET CPSC 4363 HW3 Data Fall 2024.png CPSC 4363 HW4 Data Fall 2024.png CPSC 4363 Project 1 Data Fall 2024.png CPSC 4363 Project 2 Data Fall 2024.png CPSC 4363 Quiz 7 Data Fall 2024.png Analysis Size = 42 Projcet 1 Percentage = 100% Homework 3 Percentage = 92.9% Projcet 2 Percentage = 82.1% Quiz 7 Percentage = 88.1% Homework 4 Percentage = 92.9% All criteria met their direct assessment targets.	No actions have been added.
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Incident Detection and Response

Investigate, detect, and respond to cybersecurity incidents using forensic methods, intrusion detection, and cryptographic techniques.

MEASURES	RESULTS	ACTIONS
Network Defense; Basic Cryptography; Intrusion Detection/Prevention Systems. Indirect - Overall Course Grade <i>Cybersecurity Networks: COSC 4345</i> Target 80% of the students will score 3 out of 5 or above.	MET gc_13108202510_columns_2025-06-11-01-27-43.xls Analysis Overall score of C: 65 Percentage = 85.7% (students in the CYSC program)	No actions have been added.

Legal and Industry Standards

Demonstrate ethical reasoning, professional responsibility, and offensive security skills aligned with legal and industry standards.

MEASURES	RESULTS	ACTIONS
Cybersecurity Ethics Direct - Exam (Course) <i>Computer Law/Ethics: COSC 3325</i> Target 80% of the students will score 4 out of 5 or above.	MET 3325 final data spring 2025.docx Analysis Size = 100 Percentage = 97% All criteria met their direct assessment targets.	No actions have been added.

Cyber Crime Direct - Exam (Course) <i>Cybercrime: CRIJ 4333</i> Target 80% of the students will score 4 out of 5 or above.	MET crij 4333 exam data Spring 2025.png Analysis Size = 13 Percentage = 100% All criteria met their direct assessment targets.	No actions have been added.
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Communication and Teamwork

Communicate technical cybersecurity concepts effectively to both technical and non-technical audiences, and work collaboratively in diverse, multidisciplinary teams.

MEASURES	RESULTS	ACTIONS
Group Project - Directed Study Indirect - Focus Group <i>Operating Systems: COSC 4302</i> Target 80% of the students will score 3.5 out of 5 or above.	MET 4302 project data spring 2025 Fall 2024.docx Analysis Spring 2025: Size = 48 Percentage = 85.4% Fall 2024: Size = 74 Percentage = 87.8% All criteria met their direct assessment targets.	No actions have been added.
Group Project - Emerging Topics Indirect - Focus Group <i>Software Engineering: CPSC 4360</i> Target 80% of the students will score 4.75 out of 5 or above.	MET CPSC 4360 FinalProjectFall2024.JPG CPSC 4360 FinalProjectSpring2025.JPG Analysis Spring 2025: Size = 39 Percentage = 89.7% Fall 2024: Size = 47 Percentage = 85.1% All criteria met their direct assessment targets.	No actions have been added.
Group Project - Research Indirect - Focus Group <i>Cybercrime: CRIJ 4333</i> Target	MET crij 4333 project data Spring 2025.png Analysis Size = 13	No actions have been added.

80% of the students will score 4 out of 5 or above.	Percentage = 100% All criteria met their direct assessment targets.	
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