

BACHELOR OF SCIENCE IN CYBER & DATA SECURITY TECHNOLOGY ANNUAL ASSESSMENT PLAN & FINDINGS 2021-2022 ACADEMIC YEAR

2021 – 2022 CURRICULUM MAP

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
	Employ knowledge of Penetration testing while ensuring a strict professional, ethical, and social responsibility related to cyber and data security technology professions.	Discuss appropriate mobile and web application security tools used in the world of information security as they apply to the seven domains of the typical information technology infrastructure .	Develop a risk management plan based upon the classification of the seven domains of the typical information technology infrastructure .	Apply the process of securing databases, hardening security for users, hardware, and software while constructing appropriate countermeasures to ensure data integrity.	Construct security counter measures using ethical hacking tools for hardware, software, wired, and wireless technology.	Evaluate local and global impact of attacks through information gathering such as enumeration, vulnerability scanning, and network reconnaissance , exploitation on individuals, organizations, and society.	Prepare appropriate solutions for business continuity to minimize the impact of a disruption or disaster to lessen the impact by utilizing security management support protocols, best practices, and necessary security tools.
<i>TEC 101: Fundamentals of Information Technology & Literacy</i>	I	I	I	I		I	I
<i>CYB101: Defensive Network Reconnaissance</i>	R	R	R	R		R	R
<i>ECO 203: Principles of Macroeconomics</i>							
<i>CYB 102: Network Penetration Testing-Breaching Defenses</i>	R	R	R	R	I	R	R
<i>CPT 200: Fundamentals of Programming Languages</i>							
<i>CYB 200: Database Security-Defense in Depth</i>				R	R	R	

<i>MAT 232: Statistical Literacy</i>							
<i>CYB 201: Beginning White Hat Ethical Hacker</i>	R	R	R	R	R		
<i>INT 301: Computer Networking</i>							
<i>CYB 300: System Administration and Security</i>	R	R	R	R	R	R	R
<i>CYB301: Introduction to Cyber & Data Security Technology</i>	R	R	R	R	R	R	R
<i>CYB 302: Secure Web Applications and Social Networking</i>	R	R	R	R	R	R	R
<i>CYB 303: Advanced White Hat Ethical Hacker</i>	R	R	R	R	R	R	
<i>CYB 304: Security Information Systems Security Manager</i>		R		R	R	R	R
<i>ENG 328: Scientific & Technical Writing</i>							R
<i>CYB 400: Cryptography</i>		R	R	R	R	R	
<i>CYB 401: Risk Management and Infrastructure</i>	R	R	R	R	R	R	R
<i>CYB 402: Computer Forensics</i>	R	R	R	R	R		R
<i>CYB 499: Capstone for Cyber & Data Security Technology</i>	M		M	M	M	M	M

I (Introduced), R (Reinforced), or M (Mastered).

ANNUAL ASSESSMENT PLAN FINDINGS					
PLO 1 - Employ knowledge of Penetration testing while ensuring a strict professional, ethical, and social responsibility related to cyber and data security technology professions.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or	168	168	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET

	distinguished evaluation on relevant content criteria mapped to this PLO.				
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	363	402	90.3%	

PLO 2 - Discuss appropriate mobile and web application security tools used in the world of information security as they apply to the seven domains of the typical information technology infrastructure.

MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
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Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	224	224	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	N/A	N/A	N/A	4. INSUFFICIENT DATA

PLO 3 - Develop a risk management plan based upon the classification of the seven domains of the typical information technology infrastructure.

MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET
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4. INSUFFICIENT DATA					
Direct Measure 1: CYB 401 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	369	414	89.1%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	76	76	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 4 - Apply the process of securing databases, hardening security for users, hardware, and software while constructing appropriate countermeasures to ensure data integrity.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET

				ACCEPTABLE TARGET	3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	224	224	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	95	95	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 5 - Construct security counter measures using ethical hacking tools for hardware, software, wired, and wireless technology.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET

				ACCEPTABLE TARGET	2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	224	224	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	38	38	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 6 - Evaluate local and global impact of attacks through information gathering such as enumeration, vulnerability scanning, and network reconnaissance, exploitation on individuals, organizations, and society.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS	TOTAL NUMBER OF STUDENT	ASSESSMENT RESULTS:	ASSESSMENT RESULTS:

		MEETING ACCEPTABLE TARGET	RECORDS OBSERVED	PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	N/A	N/A	N/A	4. INSUFFICIENT DATA
Direct Measure 2: CYB 499 Final Project	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	38	38	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET

PLO 7 - Prepare appropriate solutions for business continuity to minimize the impact of a disruption or disaster to lessen the impact by utilizing security management support protocols, best practices, and necessary security tools.

MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CYB 300 Week Five Assignment	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	569	616	92.4%	1. EXCEEDS THE ACCEPTABLE TARGET
	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or	38	38	100.0%	1. EXCEEDS THE ACCEPTABLE TARGET

Direct Measure 2: CYB 499 Final Project	distinguished evaluation on relevant content criteria mapped to this PLO.				
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OVERALL RECOMMENDATIONS

Overall, it is recommended to review the assessment plan (including measures used, alignment mapping, and targets set) in preparation for the 2022-2023 assessment cycle. This will determine the appropriateness of the assignments and mapping for each PLO. Since the PLOs were revised for the 2021-22 academic year and most courses have been revised, it is recommended to review the curriculum map to ensure proper alignment. In addition, consider reviewing CYB 402 and CYB 499 as the acceptable targets for PLO 2 and 6 had insufficient data.

ANNUAL ASSESSMENT PLAN ACTION ITEM STATUS REPORT				
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>Revise CYB 499</i>	<i>Re-Align PLO's and CLO's and creating additional resources for students and associate faculty.</i>	<i>Dr. Pete Limon</i>	<i>In progress</i>	<i>2QTR-2022</i>
<i>Action Details</i>				
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>Revise CYB 301</i>	<i>Re-Align PLO's and CLO's and creating additional</i>	<i>Dr. Pete Limon</i>	<i>In progress</i>	<i>3QTR-2023</i>

	<i>resources for students and associate faculty.</i>			
<i>Action Details</i>				
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>Revise CYB 302</i>	<i>Re-Align PLO's and CLO's and creating additional resources for students and associate faculty.</i>	<i>Dr. Pete Limon</i>	<i>In progress</i>	<i>3QTR-2023</i>