

BACHELOR OF SCIENCE IN CYBER & DATA SECURITY TECHNOLOGY ANNUAL ASSESSMENT PLAN & FINDINGS 2022-2023 ACADEMIC YEAR

2022 – 2023 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 countermeasu res 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.
TEC 101: Fundamentals of Information Technology & Literacy	I	I	ı	ı		ı	ı
CYB101: Defensive Network Reconnaissance	R	R	R	R		R	R
ECO 203: Principles of Macroeconomics	ı				I	I	
CYB 102: Network Penetration Testing- Breaching Defenses	R	R	R	R	ı	R	R
CPT 200: Fundamentals of Programming Languages	R	R		R	R		
CYB 200: Database Security-Defense in Depth				R	R	R	

Office of Learning Assessment and Curricular Affairs



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

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	93	124	72.7%	2. MEETS 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.	35	42	83.3%	1. EXCEEDS THE ACCEPTABLE TARGET
	oriate mobile and web application security to I information technology infrastructure.	ools used in the w	orld of informati	ion security as they	apply to the seven
domains of the typical	Thromation technology intrastructure.				
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 301 Week 1 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.	443	545	81.3%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: 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.	373	416	89.7%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 3 - Develop a risk infrastructure.	management plan based upon the classifica	ition of the seven	domains of the t	ypical information t	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 ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET
					3. DOES NOT MEET



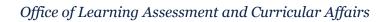


					4. INSUFFICIENT DATA
Direct Measure 1: CYB 401 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	373	416	89.7%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CYB 499 Final 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.	35	42	83.3%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 4 - Apply the proc countermeasures to e	ess of securing databases, hardening securions resure data integrity.	ty for users, hard	ware, and softwa	re while constructir	ng appropriate
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 Week 4 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.	64	74	84.2%	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.	35	42	83.3%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 5 - Construct secu	rity counter measures using ethical hacking	tools for hardwar	re, software, wire	ed, and wireless tec	hnology.
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





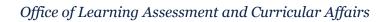
				ACCEPTABLE TARGET	2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA		
Direct Measure 1: CYB 402 Final Paper	70% of Bachelor of Science Cyber and Data Security students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	139	186	72.4%	2. MEETS 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.	35	42	83.3%	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 401 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.	373	416	89.7%	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.	35	42	83.3%	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 Learning Activity	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.	497	560	88.8%	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.	35	42	83.3%	1. EXCEEDS THE ACCEPTABLE TARGET



OVERALL RECOMMENDATIONS

Overall, it is recommended to review the assessment plan (including measures used, alignment mapping, and targets set) and the curriculum map in preparation for the 2023-24 assessment cycle. This will determine the appropriateness of the assignments and mapping for each PLO. It is recommended to review other course assignments to use as additional measures to assess. Also, consider reviewing the newly developed CYB402 as more students complete the course.

ANNUAL ASSESSMENT PLAN ACTION ITEM STATUS REPORT							
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION			
all	all	Lead Faculty,	Not Started	23-24 AY			
an	an	Assessment					
Action Details	Review the curriculum map	o alignment with the late	est course developments. A	nalyze course data from			
Action Details	the course to	incorporate new measur	es and evaluate student pe	erformance.			
OUTCOME	MEASURE	KEY/RESPONSIBLE	STATUS	ANTICIPATED DATE OF			
		PERSONNEL	3111133	COMPLETION			
1, 4, 5	CYB 402	Lead Faculty,	Started	23-24 AY			
1, 4, 3	C1B 402	Assessment					
Action Details	Redevelop CYB 402	and review data to dete	rmine what are the best m	easures to align.			
OUTCOME	MEASURE	KEY/RESPONSIBLE	STATUS	ANTICIPATED DATE OF			
001001112	WEASONE	PERSONNEL	317103	COMPLETION			
2	CYB 301	Lead Faculty,	Started	23-24 AY			
2	C1B 301	Assessment					





Action Details	Redevelop CYB 301 and CYB 302. Consider adding CYB 302 as a measure to replace CYB 301.							
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION				
all	all	Lead Faculty,	Not Started	23-24 AY				
		Assessment						
Action Details	curriculum map, and	Consider aligning TEC 100 (a General Education course) to the PLOs, incorporating into the program curriculum map, and possibly adding assignment(s) as additional measures to support PLO						
	achievement. Many components of the recently redeveloped course align with the Technology							
		department's bad	chelor programs.					