CPI_STUDENT/PROGRAM LEARNING OUTCOMES

This plan provides the PLO/SLO assessment plan for AY 2022-2025

Name of the program: ___MS Computer Science, MS Electrical & Computer Engineering, MS Cybersecurity_____

Plan for AY 2022-2023, 2023-2024, 2024-2025_____ AYs 2022-2023, 2023-2024, 2024-2025__

Expected date of submission 6/30/2022

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To ensure NYIT's CPI process meeting *MSCHE Standard V: Educational Effectiveness Assessment: Assessment of student learning and achievement demonstrates that the institution's students have accomplished educational goals consistent with their program of study, degree level, the institution's mission, and appropriate expectations for institutions of higher education.* in this CPI report, each department is requested to create a three-year assessment/evaluation plan to improve student learning for each degree programs. Reports should address the following points:

Program's Student Learning Outcome Assessment Plan

1. PLO: State/update each degree program's learning outcomes. The original PLO are here: http://www.nyit.edu/planning/academic_assessment_plans_reports.
2. Matrix: provide/update the assessment matrix that indicate which learning outcomes are assessed in which set of courses. The original matrix is here: http://www.nyit.edu/planning/academic_assessment_plans_reports.
3. METHOD: Describe the method of assessment, and measurement instruments (e.g., rubric, exam items, scoring guide for a particular task, supervisor evaluation form, and standardized assessment tool). Note: direct learning outcome assessment is required. Both direct and indirect assessment are strongly recommended.
   Direct measuring instruments include but not limited to: course assignment, portfolios, internships evaluation, capstone

course work, thesis, research project, standardized tests, etc.
Indirect measuring instruments include but not limited to: Student survey, interview, alumni survey, employer survey, focus group, students' reflection, etc.

4. Timeline of the PLO assessment: for example:

MS Computer Science

Program Learning/Student Outcomes	AY 22-23	AY 23-24	AY 24-25
A comprehensive background in theory and design of assemblers, compilers, and operating systems.	●		
2. A comprehensive knowledge of computer architecture.	●		
3. A comprehensive knowledge of mathematical & algorithmic concepts & analysis		●	
4. Proficiency in specific areas of specialization such as computer security, software engineering, computer graphics, and artificial intelligence.		●	
5. A comprehensive knowledge of analysis, design, and development of a computerized system.			●

MS Electrical & Computer Engineering			
Program Learning/Student Outcomes	AY 22-23	AY 23-24	AY 24-25

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1.A comprehensive knowledge of computer architecture and system design	●		
2. A comprehensive knowledge of advanced topics in mathematics and stochastic processes	●		
3. A comprehensive knowledge of linear systems and digital communications		●	
4. A comprehensive knowledge of advances in areas such as parallel computing, networks and VLSI designs		●	
5. Proficiency in specific areas or specialization such as computing security, quantum computing, nanotechnology, signal processing and information theory			●

MS Cybersecurity			
Program Learning/Student Outcomes	AY 22-23	AY 23-24	AY 24-25
1.Identify, formulate, and analyze the patterns and trends of threats as they apply to information systems, including methods, modes of preparation for attack, tactics, logistics, hazards, and vulnerabilities	●		
2. Critically evaluate various technical/architectural solutions available to limit risk, mitigate the effects of hostile action and recover from attack	●		
3. Design, implement and maintain software tools designed to support network security and systematically integrate these tools within multiple operating systems and platforms		●	
4.Oversee the information assurance life cycle of an organization, including planning, acquisition, and implementation of secure infrastructures		●	

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5. Ensure compliance with security policy, legislation and market trends		●	
6. Utilize mathematical and algorithmic solutions to complex information security problems			●
7.A comprehensive knowledge of probability and statistics			●

Example: SLO Assessment Plan AY 22-25

Program Learning Outcomes	AY22-23	AY23-24	AY24-25
1	x		
2	x		
3		x	
4		x	
5			x
6			x

5. Personal responsibilities for implementing the assessment, collecting data and analyzing the results against expected outcomes

   The chairs of the respective departments in MA, OW and Vancouver will have the responsibility of collecting and analyzing the data with the Associate dean of assessment

II. Brief description of how the plan is shared and communicated with all faculty members in the department

A meeting of the COECS faculty will be held to discuss the CPI Report