TRANSPARENCY AT EXCELSIOR

FY 2022 Enrollment:110; Graduates: 39

Bachelor of Science in Information Technology

Program Educational Objectives

Program Educational Objectives (PEOs) are broad statements that describe what graduates are expected to attain within a few years of graduation. Program Educational Objectives are based on the needs of the program's constituencies.

PEO 1: Apply general and discipline-specific concepts and methodologies to identify, analyze, and solve technical problems in the information technology discipline.
PEO 2: Demonstrate an individual desire and commitment to remain technically current with, and adaptive to, changing technologies through continuous learning and self-improvement.
PEO 3: Demonstrate independent thinking, function effectively in team-oriented settings, and maintain a high level of performance in a professional/industrial environment.
PEO 4: Communicate effectively in a professional/industrial environment.
PEO 5: Perform ethically and professionally in business, industry and society.
PEO 6: Demonstrate and utilize leadership principles in the field of information technology.

Program / Student Learning Outcomes: What Will I Learn?

Select an outcome statement to see the related measures and results.

Graduates of the Bachelor of Science in Information Technology will be able to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing based solution to meet a given set of computing requirements in the context of information technology.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to information technology.
6. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.
7. Demonstrate expertise in the core information technologies including human-computer interaction, information management, programming, web systems and technologies, networking, system administration and maintenance, and system integration and architecture.
8. Demonstrate the ability to analyze computing and information security requirements and risks, and apply the appropriate tools and techniques to protect organizational data assets in an ethically responsible manner.
9. Demonstrate the ability to apply best practices and standards for providing technology-based solutions.
10. Demonstrate the ability to identify and analyze the local, regional, and global impacts of information technologies and computing on individual, organizations, and society.

11. Demonstrate a commitment to professional development and continue to engage in lifelong learning.

Assessment Methodology

Metrics, Assessments, and Levels of Achievement

The table below provides a brief overview of the measures selected to assess program outcomes for the Bachelor of Science in Information Technology program. Assessment of program outcomes includes both direct and indirect measures. Benchmarks have been established to differentiate between three levels of program outcome achievement (highly achieved, meets standard, and needs improvement). These three levels of achievement are color coded and used in the section below to indicate the level of achievement for each measure, for each learning outcome.

Metric Type	**Direct Measures**		**Indirect Measures**	
Assessments	Integrated Technology Assessment Portfolio	Course-Embedded	Exit Alumni Survey	One-Year Post-graduation Alumni Survey
Metrics	The percentage of the IT 495 students who receive a satisfactory rating or higher on the given rubric criteria for the learning statements and supporting evidence for the related student outcome.	The percentage of the students who receive a grade of B or higher on two selected course embedded assessments that measure the related program outcome.	The mean of the graduates' perceptions of their achievement of the related program outcomes (on a 6-pt Likert-type scale).	The mean of the graduates' perceptions of their achievement of the related program outcomes (on a 6-pt Likert-type scale).
Highly Achieved	≥ 85%		Mean ≥ 5.00	
Meets Standard	70 - 84%		4.00 - 4.99	
Needs Improvement	< 70%		Mean < 4.00	

Note: The results of the one-year post-graduation survey are used as a reference to provide a longitudinal perspective on students' attainment of program (student) outcomes.

Key:

- Highly Achieved
- Meets Standard
- Needs Improvement

Program (Student) Outcome Achievement Results

May 2021 Term through March 2022 Term

Program (Student) Outcome		Direct Measure(s)			Indirect Measures	
1	Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.	IT 495 M3A1	TECH 205 M8A1 Final Exam	IT 380 M5A1 Hands-On Lab	Exit Survey	One-Year Survey
		89%	77%	100%	*	*
		n = 36	n = 52	n = 18		
2	Design, implement, and evaluate a computing based solution to meet a given set of computing requirements in the context of information technology.	IT 495 M3A2	IT 370 M5A1 Select and Install DBMS	IT 375 M1.3 Good and Bad Design	Exit Survey	One-Year Survey
		77%	80%	97%	*	*
		n = 30	n = 20	n = 34		
3	Communicate effectively in a variety of professional contexts.	IT 495 M3A3	IT 390 M8A1 Final Project Report	IT 250 M1A2 Hands-on Activity	Exit Survey	One-Year Survey
		81%	100%	84%	*	*
		n = 21	n = 26	n = 32		
4	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.	IT 495 M4A1	IT 380 M8A1 Hands-On Lab	IT 321 M8A1 Final Project Milestone 4	Exit Survey	One-Year Survey
		85%	100%	94%	*	*
		n = 20	n = 18	n = 18		
5	Function effectively as a member or leader of a team engaged in activities appropriate to information technology.	IT 495 M4A2	IT 390 M6A1 Project Change Requests	IT 390 M8A1 Final Project Report	Exit Survey	One-Year Survey
		86%	82%	100%	*	*
		n = 22	n = 28	n = 26		
6	Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.	IT 495 M4A3	IT 375 M6.3 Applying Shneiderman's Eight Gold Rules	IT 375 M4.3 Balsamiq – Low Fidelity Wireframing	Exit Survey	One-Year Survey
		78%	97%	90%	*	*

Program (Student) Outcome		Direct Measure(s)			Indirect Measures	
		n = 23	n = 31	n = 29		
7	Demonstrate expertise in the core information technologies including human-computer interaction, information management, programming, web systems and technologies, networking, system administration and maintenance, and system integration and architecture.	IT 495 M5A1 (Pt 1) M5A1 (Pt 2)	IT 375 M5.1 Persona Sharing	IT 380 M8A2 Research Paper	Exit Survey	One-Year Survey
		95% 88%	100%	100%	*	*
		n = 20 n = 21	n = 31	n = 18		
8	Demonstrate the ability to analyze computing and information security requirements and risks, and apply the appropriate tools and techniques to protect organizational data assets in an ethically responsible manner.	IT 495 M5A2	IT 370 M8A1 Create a GUI Database App	IT 460 M8.3 System Administration Best Practices Short Paper	Exit Survey	One-Year Survey
		93%	81%	100%	*	*
		n = 29	n = 21	n = 8		
9	Demonstrate the ability to apply best practices and standards for providing technology-based solutions.	IT 495 M6A1	IT 321 M4A1 Pipelining Stages and Execution	IT 371 M7.4 Web Design Project	Exit Survey	One-Year Survey
		86%	100%	100%	*	*
		n = 29	n = 20	n = 32		
10	Demonstrate the ability to identify and analyze the local, regional, and global impacts of information technologies and computing on individual, organizations, and society.	IT 495 M6A2	IT 250 M3A1 Securing Business Networks	IT 380 M1A1 Hands-On Lab	Exit Survey	One-Year Survey
		100%	84%	100%	*	*
		n = 24	n = 31	n = 29		
11	Demonstrate a commitment to professional development and continue to engage in lifelong learning.	IT 495 M6A3	IT 360 M1A1 OS Platforms	IT 375 M8.3 UX/UI Careers Quiz	Exit Survey	One-Year Survey
		96%	92%	76%	*	*
		n = 26	n = 13	n = 34		

Capstone Exam Results

A comprehensive capstone examination has been administered to all baccalaureate degree students at the conclusion of the IT 495 Integrated Technology Assessment since May 2011. The capstone examination consists of 120 objective questions that assess the most common and most important topics and skills in seven core content areas within the College's baccalaureate degree information technology curriculum.

From May 2021 term through March 2022 term, the total number of students who took the capstone exam was 39. The mean score on each of the program's core content areas is shown below:

- 90% - Object Oriented Programming (Part 1)
- 78% - Object Oriented Programming (Part 2)
- 100% - Information Management
- 97% - System Administration & Maintenance
- 100% - Operating Systems & Computer Architecture
- 90% - Data Communications and Networking
- 92% - Web Systems and Technologies
- 100% - Human-Computer Interaction