

FY 2021 Enrollment: 104; Graduates: 28

## 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.](#)

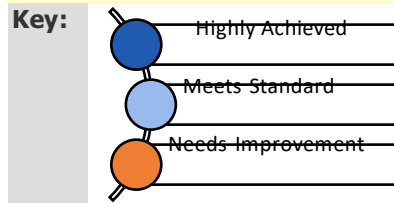
### Assessment Methodology

#### 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
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.*



## Program Outcome Achievement Results

May 2020 Term through March 2021 Term

### Program / Student Learning Outcome 1

Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	94%	Exit Survey	5.13
	n = 32		n = 8
M8A1 in TECH 205 Discrete Structures	80%	One-Year Survey	N/A
	n = 46		
M5A1 in IT 380 Overview of Computer Security	100%		
	n = 24		

**Program / Student Learning Outcome 2**

Design, implement, and evaluate a computing based solution to meet a given set of computing requirements in the context of information technology.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	83%	Exit Survey	5.25
	n = 24		n = 8
M5A1 IT 370 Database Management Systems	95%	One-Year Survey	N/A
	n = 44		
M1.2 IT 375 Human Computer Interactive Design	96%		
	n = 52		

**Program / Student Learning Outcome 3**

Communicate effectively in a variety of professional contexts.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	97%	Exit Survey	5.00
	n = 34		n = 8
M8A1 in IT 390 Project Management	97%	One-Year Survey	N/A
	n = 29		
M1A2 in IT 250 Business Data Communications	91%		
	n = 32		

**Program / Student Learning Outcome 4**

Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	95%	Exit Survey	5.00
	n = 20		n = 8
M8A1 in IT 380 Overview of Computer Security	95%	One-Year Survey	N/A
	n = 21		
M8A1 in IT 321 Computer Systems Architecture	100%		
	n = 24		

**Program / Student Learning Outcome 5**

Function effectively as a member or leader of a team engaged in activities appropriate to information technology.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	100%	Exit Survey	5.38
	n = 28		n = 8
M6A1 in IT 390 Project Management	84%	One-Year Survey	N/A
	n = 31		
M8A1 in IT 390 Project Management	97%		
	n = 29		

**Program / Student Learning Outcome 6**

Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	91%	Exit Survey	5.38
	n = 34		n = 8
M6.3 in IT 375 Human Computer Interactive Design	100%	One-Year Survey	N/A
	n = 48		
M4.3 in IT 375 Human Computer Interactive Design	98%		
	n = 49		

**Program / Student Learning Outcome 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.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	100%	Exit Survey	4.75
	n = 17		n = 8
M5.1 in IT 375 Human Computer Interactive Design	93%	One-Year Survey	N/A
	n = 29		
M8A2 in IT 380 Overview of Computer Security	87%		
	n = 23		

**Program / Student Learning Outcome 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.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	96%	Exit Survey	5.13
	n = 26		n = 8
M8A1 in IT 370 Database Management Systems	85%	One-Year Survey	N/A
	n = 39		
M8.2 in IT 460 System Administration	68%		
	n = 19		

**Program / Student Learning Outcome 9**

Demonstrate the ability to apply best practices and standards for providing technology-based solutions.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	90%	Exit Survey	5.38
	n = 20		n = 8
M4A1 in IT 321 Computer Systems Architecture	100%	One-Year Survey	N/A
	n = 22		
M8A2 in IT 371 Web Design and Development	95%		
	n = 20		

**Program / Student Learning Outcome 10**

Demonstrate the ability to identify and analyze the local, regional, and global impacts of information technologies and computing on individual, organizations, and society.

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	83%	Exit Survey	4.88
	n = 24		n = 8
M3A1 in IT 250 Business Data Communications	93%	One-Year Survey	N/A
	n = 30		
M1A1 in IT 380 Overview of Computer Security	100%		
	n = 23		

**Program / Student Learning Outcome 11**

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

Direct Measure		Indirect Measure	
Capstone Rubric IT 495 Integrated Technology Assessment	97%	Exit Survey	5.00
	n = 29		n = 8
M1A1 in IT 360 Operating Systems	85%	One-Year Survey	N/A
	n = 40		
M8.2 in IT 375 Human Computer Interactive Design	96%		
	n = 46		



### 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 2020 term through March 2021 term, the total number of students who took the capstone exam was 43. The mean score on each of the program's core content areas is shown below:

- 93% - Object Oriented Programming (Part 1)
- 97% - Object Oriented Programming (Part 2)
- 100% - Information Management
- 98% - System Administration & Maintenance
- 100% - Operating Systems & Computer Architecture
- 95% - Data Communications and Networking
- 90% - Web Systems and Technologies
- 88% - Human-Computer Interaction