

The Student Outcomes of the BS in CS Program

The department has established student outcomes so that upon graduation, students with a degree in the undergraduate Computer Science program at NYIT will demonstrate an ability to:

- a. Apply knowledge of computing and mathematics appropriate to the discipline.
- b. Analyze a problem and identify and define the computing requirements appropriate to its solution.
- c. Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- d. Function effectively on teams to accomplish a common goal.
- e. Understand professional, ethical, legal, security, and social issues and responsibilities.
- f. Communicate effectively with a range of audiences.
- g. Analyze the local and global impacts of computing on individuals, organizations, and society.
- h. Engage in and recognize the need for continuing professional development.
- i. Use current techniques, skills, and tools necessary for computing practice.
- j. Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- k. Apply design and development principles in the construction of software systems of varying complexity.

In order to ensure that students achieve student outcomes a-k, the faculty has built the curriculum such that key concepts are introduced, developed, and reinforced throughout a students' time in the program. Table 4.A.1 below shows the relationship between courses in the program and Student Outcomes (a – k).

Relationship between CS Program Courses and Student Outcomes

ETCS/CSCI	a	b	c	d	e	f	g	h	i	j	k
105					x			x			
108					x	x	x				
125			x			x			x		x
155	x		x						x	x	
185			x			x			x		x
235	x								x		
260	x		x			x					
270	x										
312	x	x									
318	x		x						x		
300	x	x		x	x	x					
330	x	x							x		
335	x	x							x		
354*					x	x					
355*	x	x	x			x			x	x	
345				x					x		
380			x	x		x			x	x	x
385*		x	x		x				x		
405*	x		x						x		
415*	x	x	x						x		
440*		x	x								
445*			x						x		

455	x	x	x	x	x	x	x	x	x	x	x
IENG 400					x	x	x				