

Computer Science major Program Educational Objectives (PEOs)

PEO	Program Educational Objective
01	Graduates will be employed or pursuing graduate studies in the computing field
02	Graduates will be able to communicate effectively and work cooperatively with others in the computing field and with clients seeking their services as computing professionals
03	Graduates will demonstrate commitment to lifelong learning
04	Graduates will be able to utilize computer science knowledge and techniques in solving assigned problems
05	Graduates will report an increase in assigned responsibilities

Computer Science major Student Outcomes (SOs) - program level

SO	Student Outcome
SO-A	Demonstrated ability to apply knowledge of computing and mathematics appropriate to the discipline
SO-B	Demonstrated ability to analyze a problem and to identify and define the computing requirements appropriate to its solution
SO-C	Demonstrated ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
SO-D	Demonstrated ability to function effectively on teams to accomplish a common goal
SO-E	Demonstrated understanding of professional, ethical, legal, security, and social issues and responsibilities
SO-F	Demonstrated ability to communicate effectively with a range of audiences
SO-G	Demonstrated ability to analyze the local and global impact of computing on individuals, organizations and society
SO-H	Recognition of the need for, and an ability to engage in, continuing professional development

SO	Student Outcome
SO-I	Demonstrated ability to use current techniques, skills, and tools necessary for computing practice
SO-J	Demonstrated ability to 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
SO-K	Demonstrated ability to apply design and development principles in the construction of software systems of varying complexity

Each Student Outcome (SO) – program level is mapped to one or more Program Educational Objective (PEO) as indicated in the following table:

	PEO1: Graduates will be employed or pursuing graduate studies in the computing field	PEO2: Graduates will be able to communicate effectively and work cooperatively with others in the computing field and with clients seeking their services as computing professionals	PEO3: Graduates will demonstrate commitment to lifelong learning	PEO4: Graduates will be able to utilize computer science knowledge and techniques in solving assigned problems	PEO5: Graduates will report an increase in assigned responsibilities
SO-A: Demonstrated ability to apply knowledge of computing and mathematics appropriate to the discipline	✓	✓	✓	✓	✓
SO-B: Demonstrated ability to analyze a problem and to identify and define the computing requirements appropriate to its solution	✓	✓	✓	✓	✓
SO-C: Demonstrated ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs		✓	✓		✓
SO-D: Demonstrated ability to function effectively on teams to accomplish a common goal		✓	✓	✓	✓

	PEO1: Graduates will be employed or pursuing graduate studies in the computing field	PEO2: Graduates will be able to communicate effectively and work cooperatively with others in the computing field and with clients seeking their services as computing professionals	PEO3: Graduates will demonstrate commitment to lifelong learning	PEO4: Graduates will be able to utilize computer science knowledge and techniques in solving assigned problems	PEO5: Graduates will report an increase in assigned responsibilities
SO-E: Demonstrated understanding of professional, ethical, legal, security, and social issues and responsibilities		✓	✓	✓	✓
SO-F: Demonstrated ability to communicate effectively with a range of audiences	✓		✓	✓	✓
SO-G: Demonstrated ability to analyze the local and global impact of computing on individuals, organizations and society		✓	✓	✓	✓
SO-H: Recognition of the need for, and an ability to engage in, continuing professional development	✓	✓	✓	✓	✓
SO-I: Demonstrated ability to use current techniques, skills, and tools necessary for computing practice	✓	✓	✓	✓	✓
SO-J: Demonstrated ability to 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	✓	✓	✓	✓	
SO-K: Demonstrated ability to apply design and development principles in the construction of software systems of varying complexity	✓		✓	✓	✓

Student Outcomes (program level) vs. Major Courses
(required courses in **boldface green**)

CS Major Courses	SO-A	SO-B	SO-C	SO-D	SO-E	SO-F	SO-G	SO-H	SO-I	SO-J	SO-K
CSC 105	✓	✓			✓		✓		✓	✓	
CSC 110	✓	✓	✓						✓	✓	✓
CSC 115	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CSC 212	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CSC 223	✓	✓	✓	✓					✓		
CSC 230	✓	✓	✓						✓	✓	
CSC 235	✓	✓	✓			✓		✓	✓	✓	
CSC 246	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CSC 260	✓	✓	✓			✓		✓	✓	✓	✓
CSC 263	✓	✓	✓	✓				✓	✓	✓	
CSC 278	✓	✓	✓	✓					✓	✓	✓
CSC 279	✓	✓	✓	✓		✓			✓	✓	✓
CSC 295	✓	✓	✓	✓				✓	✓	✓	
CSC 300	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CSC 315A	✓	✓	✓			✓	✓	✓	✓		
CSC 325	✓	✓	✓	✓	✓	✓			✓		
CSC 340	✓	✓							✓	✓	
CSC 351	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
CSC 367											
CSC 376											
CSC 381	✓	✓			✓			✓	✓	✓	
CSC 400	✓	✓								✓	
CSC 415	✓	✓	✓						✓	✓	✓
CSC 425	✓	✓	✓	✓				✓	✓	✓	✓
CSC 435	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
CSC 445	✓	✓	✓	✓					✓	✓	
CSC 475	✓	✓	✓	✓		✓			✓	✓	✓
CSC 485	✓	✓	✓			✓			✓	✓	
CSC 490	✓	✓	✓						✓	✓	✓
CSC 520	✓	✓	✓			✓		✓	✓	✓	✓
CSC 521	✓	✓	✓			✓		✓	✓	✓	✓
Required Support Courses	SO-A	SO-B	SO-C	SO-D	SO-E	SO-F	SO-G	SO-H	SO-I	SO-J	SO-K
MAT 147	✓							✓	✓	✓	
MAT 214A	✓							✓	✓	✓	
MAT 220	✓							✓	✓	✓	
MAT 221	✓							✓	✓	✓	
PHS 205	✓					✓			✓	✓	