

COMPUTER SCIENCE B.S.  
COMPETENCIES/EXPECTED OUTCOMES

Computer Science BS Curricular Map	Survey of CS	Intro Prog & Design	Data Structures	Fund of Prog Lang	Software Eng	Math Found of CS	Comp Org	Op Sys & Net	Alg & Data Struct	Project in CS	Math/Theory Elective	Appl Electives	Calc I	Calc II	Calc III	Linear Alg	Physics	Writing & Comm	
I=Introduce; R=Reinforce; E=Emphasize	CSC 110	CSC 211	CSC 212	CSC 301	CSC 305	CSC 340	CSC 411	CSC 412	CSC 440	CSC 499	CSC 350 or 445	CSC electives	MTH 141	MTH 142	MTH 243	MTH 215	PHY 203/204	WRT & COM	
<b>Basics of the discipline</b>																			
Apply fundamental principles and methods of Computer Science to a wide range of applications	I				R	R	E	E	E	E	E	E							
Understand basic foundations of mathematics and physical sciences						R			E		E		I	I	I	I	I		
Design, correctly implement and document solutions to significant computational problems		I	I	R	E			E		E		E							
<b>Proficiency in computing</b>																			
Formulate and solve problems in computing	I	I	I	R	E	R	R		R	E	R	E							
Understand design and performance requirements of software systems		I	I		E				R	E									
Apply sound principles to the synthesis and analysis of computer systems		I				I	I		R		R								
Work effectively in teams to design and implement solutions to computational problems	I				R						E								
<b>Professional Development</b>																			
Engage in lifelong learning and expect to embrace change	I			R						E									
Communicate effectively, both orally and in writing	I											R							I,R,E
Think critically and creatively, both independently and with others	I				R	R	R	R	R	E	R	R							
Understand the social and ethical responsibilities of a professional working in the discipline	I				R							R							