



UNIVERSIDAD POLITÉCNICA DE PUERTO RICO
GRADUATE PROGRAM IN COMPUTER SCIENCE
MCS-OL



2026- 2028

COURSE	COURSE TITLE	PRE-REQUISITE	FA	WI	SP	FA	WI	SP
			26	26	27	27	27	28
CORE COURSES								
CECS 6005	Principles of Information Security	None	X	X	X	X	X	X
CECS 6010	Advanced Design and Analysis of Algorithms	Data Structure		X			X	
CECS 6030	Computational Theory	Calculus II, Discrete Structure	X			X		
CECS 6230	IT Operations	None		X			X	
CECS 7235	Computer Forensics	None	X			X		
CYBERSECURITY SPECIALIZATION AREA (CySec)								
CECS 6605	Advanced Database Systems	None	X	X	X	X	X	X
CECS 7230	Network Security	None		X			X	
CECS 7237	Advanced Computer Forensics	CECS 7235			X			X
CECS 7570	Computer Security	None	X	X	X	X	X	X
KNOWLEDGE DISCOVERY AND DATA MINING SPECIALIZATION AREA (KDDM)								
CECS 6430	Advanced Software Architecture	OOP	X			X		
CECS 6605	Advanced Database Systems	Data Structure	X	X	X	X	X	X
CECS 7530	Data Mining and Data Warehousing	None		X			X	
CECS 7550	Artificial Intelligence	Data Structure			X			X
DATABASE AND SECURE OPERATIONS EMPHASIS AREA								
CECS 6015	IT Auditing and Secure Operations	None	X	X		X	X	
CECS 6035	Contingency Planning	None			X			X
CECS 7240	Database Security	None		X	X		X	X
BIG DATA EMPHASIS AREA								
CECS 7410	Parallel and Distributed Processing	None		X			X	
CECS 7412	Fundamentals of Big Data Analytics	None	X			X		
CECS 7414	Big Data Analytics Programming and Applications	CECS 7412			X			X
DIGITAL EVIDENCE & AUDITING EMPHASIS AREA								
CECS 6015	IT Auditing and Secure Operations	None	X	X		X	X	
CECS 6045	Law, Investigations, and Ethics	None	X			X		
CECS 6046	Electronic Discovery and Digital Evidence	None	X		X	X		X
PROJECT								
CECS 7950	Project for Master in Computer Science	GPDA*	X	X	X	X	X	X
CECS 7951	Project Extension for Master in Computer Science	CECS 7950 and GPDA*	X	X	X	X	X	X

*Graduate Program Director's Approval