

# C# and Mobile Device Programming One-Year Certificate

## PROFESSIONAL TECHNICAL 2013-2014 Certificate Requirements

### Major Courses

Course	No.	Course Title	Credits	Qtr. Completed	Comments/Substitution
CS	102*	Programming Fundamentals (minimum grade 2.5)	5		
CS	106	Database Systems <b>or</b>	5		
CS	225	SQL Server Programming	5		
CS	117	Computer Ethics <b>or</b>	2		
CS	118	Customer Service	3		
CS	150	Computer Security	5		
CS	173	C# Programming	5		
CS	262	Game Programming Design and Development	5		
CS	264	Android Application Development <b>or</b>	5		
CS	265	Objective-C/iPhone Programming <b>or</b>	5		
CS	272	Windows Phone Programming	5		
CS	273	Advanced C# Programming	5		
CS	275	Secure Coding & Software Development/Sr. Project	5		
<b>Select 5 additional credits from any CS courses</b>					
			5		

**Subtotal 47-48**

### General Education

Course	No.	Course Title	Credits	Qtr. Completed	Comments/Substitution
ENG&	101+	English Composition <b>or</b> above	5		
MATH	106+	Business Mathematics <b>or</b> above	5		
<b>Psychology or Sociology (select 5 credits)</b>					
PSYC&	100+	General Psychology <b>or</b> above <b>or</b>	5		
SOC&	101	Intro to Sociology <b>or</b>	5		
SOC&	201	Social Problems	5		
<b>Communication Studies (select 3-5 credits)</b>					
CMST	101	Speech Essentials <b>or</b>	3		
CMST	110	Communication Behavior <b>or</b>	3		
CMST&	220	Public Speaking <b>or</b>	5		
CMST&	210	Interpersonal Communication <b>or</b>	5		
CMST	260	Multicultural Communication	5		

**Subtotal 18-20**

**Total Credits Required 65-68**

Note: MATH 095 or MATH 098 with minimum grade 2.0 is prerequisite for all programming classes. Students must receive minimum 2.0 grade in all CS courses, except as noted above.\*

C-Sharp (C#) is a computer programming language that is widely used by most software solution companies. Students who complete this certificate will have basic skills to write applications for emerging markets. The curriculum focuses on traditional desktop technology and moves into Windows Mobile Device, game, and database programming. The students gain experience using Microsoft Visual Studio .NET technology to develop applications, and will have the opportunity to work on team projects. Career opportunities: C# programming and mobile device programming jobs. Mobile devices: Windows phones, Androids, or iPhone/iPad.