

## Certificate of Achievement in Programming for Business

**NOTE:** This certificate has no general education requirements and can be earned in two to three semesters. Some courses are not offered every semester, so be sure to take courses when they are offered.

**Purpose:** Students develop skills and knowledge, in a collaborative, hands-on environment, that they can use to gain employment or enhance their careers in computer programming in business environments. **Students seeking transfer to a 4-year program in Computer Science should review the “Associate’s Degree in Computer Science” program instead of this program.**

Required Courses	
Course Name and Number	Prerequisite (a course which must be taken first) Corequisite ( to be taken first, or at the same time)
CS 501 Intro to Computers and Their Uses	
CS 572 Intro to PC Hardware and Operating Systems <b>OR</b> CS 550 Intro to Web Dev with Dreamweaver and CSS <b>OR</b> CS 552 Programming in Java	Pre: for CS 552 is CS 508 or 575
<b>CS 508</b> Intro to Programming in Visual Basic <b>OR</b> CS 575 Programming Fundamentals	
CS 533 Databases Using Access and SQL	Pre: CS 501
CS 541 Advanced Database Programming with C#	Pre: (CS 508 <b>OR</b> 575) and CS 533
CS 560 Business Systems Design Using Oracle and SQL Server	CS 501 and CS 533
ACCT 1 Intro to Accounting <b>OR</b> Bus 5 Business Law <b>OR</b> CAOT 32 Business Communication	

**Notes:**

- **508:** You do not need both CS 508 and CS 575 for this degree. CS 575 is a very rigorous programming course designed for Computer Science or Computer Engineering majors. The Programming for Business certificate allows the less rigorous CS 508 programming course and gives students introductory skills in programming.
- **IMPORTANT:** many of these classes are only offered one time per year. Take whichever is available at the time if your prerequisites are complete.
- **Catalog Rights:** Students who attended Pierce with no break in attendance prior to this time may have different requirements that they can use for this degree. Check with David Schamus