Those who have mastery of computer programming are in demand in the business world. In this certificate program, individuals will learn how to use a variety of programming languages for business management needs.

### Required Courses

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Total Hours</th>
<th>Total Sessions</th>
<th>Tuition*</th>
<th>Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Programming with C#.net Visual Studio</td>
<td>18</td>
<td>6</td>
<td>$349</td>
<td>Additional Fee</td>
</tr>
<tr>
<td>2. Introduction to Software Application Development Using C#</td>
<td>18</td>
<td>6</td>
<td>$349</td>
<td>Additional</td>
</tr>
<tr>
<td>3. Introduction to JavaScript Programming</td>
<td>18</td>
<td>6</td>
<td>$349</td>
<td>N/A</td>
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<tr>
<td>4. JavaScript Applications</td>
<td>18</td>
<td>6</td>
<td>$349</td>
<td>N/A</td>
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</tbody>
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*Tuition subject to change.

Please refer to the current Continuing Education & Workforce Development catalog for course specifics (tuition, start date, class time slot and location).

**Introduction to Programming with C#.net Visual Studio**

This course provides an introduction to the world of programming utilizing Visual C#.NET, a high-level event driven programming language. Students will develop skills for solving problems with a computer. The basic concepts of C# are mastered in order to aid in solving these problems. More advanced programming concepts are also explored including database programming and object-oriented programming.

**Introduction to Software Application Development Using C#**

This course will introduce students to basic steps involved with software application development and focus on hands-on experience. Students will work on a project tailored to individual students based on his/her experiences. Students will have the opportunity to utilize what they have learned from C# and practice how to analyze a problem and conduct research to find a software solution. The class will be fun, it may be a challenge, but for sure, it will be rewarding.
Introduction to JavaScript Programming

JavaScript is a powerful programming language built into every web browser. In this course, students will examine the latest JavaScript language features, including syntax and conventions, data types, operators, functions, closures, objects, timers and event handlers. The development environment will use “open source” tools including Notepad++, jQuery, jsLint, and Firebug. Students will review best programming practices and focus on learning to avoid common pitfalls as well as developing strong thinking and debugging skills. This is a “hands-on” course based on a series of increasingly challenging exercises in which students will learn to translate specifications and requirements into efficient and working code. Although there is no textbook for this course, readings from freely available web sources will be assigned.

Please Note: Students must bring a flash drive to class.

JavaScript Applications

JavaScript is a powerful programming language built into every popular web browser. Using a project-based approach, students will develop a small personal or business application using JavaScript and free software tools and frameworks (e.g., jQuery). Application areas include designing and validating web-based forms, simple geocode mapping, searching public blog/book/news databases, creating browser-based games. Students will learn about data structures, interface design, event handling, and multimedia programming, as well as how to organize work, break problems down into manageable chunks, read other peoples’ code, and debug and improve their own. Previous programming experience is not required but would be helpful.

Pre-requisite: Introduction to JavaScript or with permission of instructor. To receive pre-course information from the instructor, please provide your email address at time of registration.

Please Note: Students must bring a flash drive to class.

Dated Created: 7/31/15
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