

Madison Area Technical College
Information Technology—
Microsoft® Visual Studio.NET
Certificate

Effective: 2012-2013

Program Number: 90-152-5

Certificate

Information Technology Program Cluster

School of Agriscience and Technologies

Program offered at Madison Campuses

For information call: (608) 246-6800 or
 (800) 322-6282 Ext. 6800

About the Certificate

This certificate is designed to prepare IT professionals to use Microsoft's Visual Studio.NET® applications development suite. Each student takes programming courses in Visual Basic.NET®. In addition, the students take a course in ASP.NET giving them experience and understanding of web services provided with these products. Students also take a course in ActiveX Data Objects (ADO.NET) giving them training in database access that provides platform interoperability and scalable data access. This IT–Microsoft Visual Studio.NET® Certificate allows students to augment skills learned in Information Technology two-year associate degree programs.

Visual Studio.NET® is Microsoft's tool for building next-generation web applications and XML web services. Visual Studio.NET empowers developers to design broad-reach Web applications for any device and any platform. In addition, Visual Studio.NET is built on, and fully integrated with, the Microsoft.NET Framework. This integration enables Visual Studio.NET to provide support for multiple programming languages and to perform many common programming tasks automatically—freeing developers to rapidly create web applications using their language of choice.

This certificate program is being aligned with the Microsoft® Certified Applications Developer (MCAD) exams, which will lead to Microsoft® Certified Application Developer (MCAD) certification. For further information see the Microsoft® Website:
<http://www.microsoft.com/traincert/mcp/mcad>.

Unique Requirements for Admission

Students must have a minimum of three years of related work experience or be second-year students in an Information Technology programming degree. The student is expected to have exposure to a relational database management system (RDBMS) (e.g., Microsoft Access, Microsoft SQL Server, Oracle, DB2 or an equivalent). The course 10-152-124, Introduction to Database, may be taken if a student does not have work experience with an RDBMS. The student is also expected to have exposure to a programming language (e.g., COBOL, Visual Basic, C++, Java, etc.) either through professional experience or IT department coursework.

Certificate Application Process

To apply, see: Apply Online (on the Madison College website). [Create an ApplyWeb account](#) and follow the [instructions](#) to complete the [Online Certificate Application](#) before the [application deadline](#). Submit the \$15 non-refundable fee (payable by credit card, debit card or electronic check) with your application. Applicants may submit more than one certificate application per term using the Online Certificate Application; the same fees apply for each additional application.

Curriculum

Courses		Hrs/week	
		Credits	Lec-Lab
10-152-101	Introduction to Visual Basic.NET Programming	3	2-2
10-152-102	Advanced Visual Basic.NET*	3	2-2
10-152-103	Web Application Development Using ASP.NET**	3	2-2
10-152-141	<u>C# Programming in Visual Studio.NET* (optional)</u>	<u>(3)</u>	<u>(2-2)</u>
Total		9	

*Offered fall semester only **Offered spring semester only

Note: All Information Technology courses require a grade of C or better in order to receive the certificate.

Courses

10-152-101 Introduction to Visual Basic.NET Programming 3 credits
 Teaches the basic concepts of VB.NET programming. Topics include the Visual Studio Integrated Development Environment, program logic constructs, event-driven programming techniques, and development in an object-oriented context.

10-152-102 Advanced Visual Basic.NET 3 credits
 The course provides students with a comprehensive understanding of object-oriented system development. It examines and uses the prewritten .NET Framework classes and explores the MSDN help facility. Topics include: collections, exception handling, interfaces and advanced development techniques such as XML and database programming using ADO.NET.
 Prerequisites: 10-152-101 and 10-152-124.

10-152-103 Web Application Development Using ASP.NET 3 credits
 Students learn to develop Microsoft ASP.NET applications that deliver dynamic content to the web. An emphasis is placed on server-side programming and the role of ASP.NET plays. As part of the class, students create web forms with server controls, display dynamic data from a database using Microsoft ADO.NET, read XML configuration files, and learn to debug ASP.NET web pages. Prerequisite: grade of C or better in 10-152-102.

Optional Course

10-152-141 C# Programming in Visual Studio.NET (optional) 3 credits
 This course will give developers the skills needed to develop applications using the C# programming environment within Microsoft Visual Studio.NET. The course will focus on language syntax, program structure and implementation guidelines for developing applications using the C# development environment. Prerequisite: one year of working knowledge or coursework in another programming language.

Visual Studio, .NET, C#, Visual Basic, ASP.NET, ADO.NET and Microsoft® are registered trademarks of Microsoft Corporation.

Career Potential:

- Visual Studio.NET Developer

Unique Requirements for Completion

The certificate will be awarded upon completion of the requirements with a minimum of a 2.0 grade average and no course grade lower than a C. The certificate will be awarded when completion of all requirements is verified after the semester the last course has been completed.

More detailed and updated information on this program may be available at: madisoncollege.edu. The college reserves the right to make changes in the regulations and courses announced in this publication without notice.

Madison Area Technical College provides equal opportunity in education and employment.

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