

# Visual Basic .NET Certificate Program



## OVERVIEW

Microsoft's Visual Basic .NET has matured along with the entire Visual Studio .NET development environment. Now, UC Irvine Extension is pleased to offer laboratory-based courses that feature Microsoft Official Curricula to help you take advantage of all that Visual Basic can offer. Whether you are interested in developing applications for Windows or for the Web, you can use Visual Basic to develop full-featured, professional-looking applications using many of the same object-oriented capabilities that were previously available only in such languages as C++ and Java. If you are new to Visual Basic programming but familiar with other programming languages, this certificate program is your best choice for getting into the .NET programming world. Most business applications involve the manipulation of data residing in relational databases so it is important to know how these databases work. Consequently, the certificate program includes database courses among the electives. In addition, several new object-oriented programming features are available with .NET that were not available with earlier versions. To gain more experience with object-oriented programming, students can use Object-Oriented Analysis and Design as another elective option.

### Objectives:

- Describe the .NET framework and its capabilities.
- Create simple Windows applications using VB.NET.
- Write VB applications that access a database.
- Write VB applications that can be deployed on a Web site (including Web services).
- Use object-oriented analysis techniques to design effective VB software.

## CERTIFICATE AWARD REQUIREMENTS

In order to receive the Certificate in Visual Basic.NET Programming, students must complete a minimum of 15 units of coursework with a grade of "C" or better in each course. Students must submit an Application for Candidacy form before completing their third course in the program.

## LIST OF COURSES

Catalog Number	Title	Units
<i>Required Courses</i>		
I&C SCI X403.20	Introduction to Visual Basic .NET Programming with Microsoft .NET (MS Course 2559)	3.5
I&C SCI X403.21	Developing Microsoft .NET Applications for Windows using Visual Basic .NET (MS Course 2565)	3.5
I&C SCI X403.12	Core Web Application Technologies with Visual Studio 2005 (MS Course 2543)	2
I&C SCI X430.13	Advanced Web Application Technologies with Visual Studio 2005 (MS Course 2544)	1.5
<i>Elective Courses</i>		
I&C SCI X430.41	Microsoft SQL Server 1	3
I&C SCI X430.4	Microsoft SQL Server Part II: Advanced Topics	3
I&C SCI X471.91	Object-Oriented Analysis and Design	3
I&C SCI X450.34	Writing Queries using MS SQL 2005 Transact-SQL (MS Course 2778)	2
I&C SCI X450.31	Implementing a Microsoft SQL Server 2005 Database (MS Course 2779)	2
I&C SCI X450.32	Maintaining a Microsoft SQL Server 2005 Database (MS Course 2780)	2

For the latest schedule, please visit our Web site:

[http://unex.uci.edu/certificates/it/vb\\_dotnet/courses.asp](http://unex.uci.edu/certificates/it/vb_dotnet/courses.asp)

## PROGRAM FEES

You total cost may vary substantially depending on the specific elective courses you choose. Course fees range from \$695 to \$1150. Note that the parking is free for all Microsoft certification courses conducted at EmpoweTrain in University Tower, across the street from the UCI campus in Irvine.

Course fees	\$5800
Candidacy Fee	\$125
Textbooks <sup>1</sup>	\$75
Parking (\$34 per quarter) <sup>2</sup>	
Total Estimated Cost	\$6,000

Your actual cost could be more or less than this amount (most likely less because this is a conservative estimate).

## COURSE DESCRIPTIONS

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### *REQUIRED COURSES*

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Introduction to Visual Basic .NET Programming with Microsoft .NET (MS Course 2559)

I&C SCI X403.20 (3.5 Units)

Gain the knowledge and skills you need to develop applications using Microsoft Visual Basic.NET 2005 and the .NET platform. Visual Basic has matured into a robust, full-featured language for the Microsoft .NET environment that takes complete advantage of all the features of .NET. Additionally, advanced object-oriented programming features that previously were available only in C++, Java, or C# are now available to the Visual Basic Programmer. This first course covers user interfaces, program structure, language syntax, and implementation details. The course prepares you for further study of .NET technologies including developing forms for both windows and the web, and for working with database systems.

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<sup>1</sup> The cost of course books are included in the course fees for all Microsoft certified courses. The \$75 amount included here represents a book you might have to purchase for one of the general database courses.

<sup>2</sup> Parking at EmpoweTrain is free so there will be no parking charges associated with Oracle or Microsoft courses. However, if you take either or both of the general database courses on the UCI campus, you will have to pay a parking fee.

Developing Microsoft .NET Applications for Windows using Visual Basic .NET (MS Course 2565)

I&C SCI X403.21 (3.5 Units)

Expand your knowledge of Visual Basic programming and Microsoft Windows-based application development. This course focuses on using Visual Basic to develop full-featured Windows applications that take advantage of the Microsoft .NET Framework. Topics include Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and programming issues, simple remoting, Web access, XML Web services consumption, debugging, security, and deploying desktop applications.

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### *ELECTIVE COURSES*

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Core Web Application Development with Visual Studio 2005 (MS Course 2343)

I&C SCI X403.12 (2 Units)

Gain the knowledge and skills needed to develop Microsoft ASP.NET 2.0 Web applications using Microsoft Visual Studio 2005. This course focuses on basic user interface development, Web site structure and functionality, and implementation details.

Advanced Web Application Development with Visual Studio 2005

I&C SCI X403.13 (MS Course 2344)  
(1.5 Units)

Gain the knowledge and skills needed to develop Microsoft ASP.NET 2.0 Web applications using Microsoft Visual Studio 2005. You'll learn how to develop advanced user interfaces, implement advanced Web site functionality, and use other features of Visual Studio 2005.

Microsoft SQL Server Part 1

I&CSCI X430.41 (3 Units)

Learn how Microsoft SQL Server, a scalable, high performance database management system, can help your company solve complex business problems and easily conduct business on the Internet. Explore how SQL Server can replicate information on a variety of database platforms including Microsoft Access, Oracle, Sybase, and DB2, as well as automate data publishing to HTML documents for use on the World Wide Web. This hands-on course introduces students to the

fundamentals of implementing and using SQL Server in a distributed environment. The course covers implementing the SQL Server Database, working with data, creating SQL procedures, using server tools, and publishing data on the World Wide Web.

#### Microsoft SQL Server Part 2: Advanced Topics I&CSCI X430.4 (3 Units)

This course provides an advanced study of Microsoft SQL server emphasizing performance tuning and optimization. Other topics include SQL architecture, disaster planning and recovery, security, replication, and XML. At the conclusion of this course, students will be able to identify bottlenecks,

#### Object-Oriented Analysis and Design I&CSCI X471.91 (3 Units)

This course focuses on the principles and methods of object-oriented analysis and design (OOAD). In addition to defining and motivating the essential aspects of this programming paradigm, the course also introduces students to de facto standard Unified Modeling Language (UML). The course demystifies the hype surrounding object-oriented techniques by providing a solid conceptual and practical basis for object-oriented analysis and design. In addition, students learn how to apply the Unified Modeling Language in the development of practical systems. Individuals who are already familiar with other methodologies such as Booch, OMT, OOSE, etc. can expect this course to serve as a valuable stepping stone toward mastering the UML.

#### Writing Queries using MS SQL 2005 Transact-SQL (MS Course 2778)

I&CSCI X450.34 ( 2 units )

Gain the knowledge and skills needed to write queries for Microsoft SQL Server 2005 using Transact-SQL. Topics include writing queries, using SQL Query Analyzer, retrieving and filtering data from a database, modifying data in a database, and developing triggers, views, and stored procedures.

#### Implementing a Microsoft SQL Server 2005 Database (MS Course 2779)

I&CSCI X450.31 ( 2 Units )

Gain the knowledge and skills needed to implement a Microsoft SQL Server 2005 database. This course focuses on teaching individuals how to use SQL Server 2005 product features and tools related to implementing a database.

#### Maintaining a Microsoft SQL Server 2005 Database (MS Course 2780)

I&CSCI X450.32 ) ( 2 units )

Gain the knowledge and skills needed to maintain a Microsoft SQL Server 2005 database. This course focuses on teaching individuals how to use SQL Server 2005 product features and tools related to maintaining a database.

**UNIVERSITY OF CALIFORNIA, IRVINE**  
**UNIVERSITY EXTENSION**

APPLICATION FOR CANDIDACY

Certificate Program in Visual Basic .NET

This form must be submitted, along with a filing fee of \$125, prior to completion of the third course in the Program.

NAME  Mr.  Mrs.  Ms.

HOME ADDRESS

CITY

STATE

ZIP

PHONE: DAY

EVENING

SOCIAL SECURITY NUMBER

JOB TITLE

EMPLOYER

EMPLOYER ADDRESS

***Payment must be included with application.***

MY CHECK FOR \$125 IS ENCLOSED (Payable to Regents of University of California).  
CANDIDACY FEE IS NONREFUNDABLE AND NONTRANSFERABLE.

CHARGE TO:  VISA  MASTERCARD  AMERICAN EXPRESS

ACCOUNT NUMBER

EXP DATE

AUTHORIZED SIGNATURE

***Mail To:***

UNIVERSITY OF CALIFORNIA, IRVINE  
UNIVERSITY EXTENSION  
STUDENT SERVICES  
PO Box 6050, IRVINE, CA 92616-6050

OR FAX TO: (949) 824-2090

## SUMMER 2007 COURSE SCHEDULE

### **Introduction to Visual Basic .NET Programming with Microsoft .NET (Microsoft Course 2559)**

Instructor: Stephen Jack Lewin, M.S.  
When: Saturdays, July 28-August 25,  
9am-5pm; 5 meetings  
Where: 4199 Campus Dr., Suite F, Irvine  
Fee: \$1,150; includes Microsoft certified  
courseware  
Reg #: 00201

### **Developing Microsoft .NET Applications for Windows (Visual Basic .NET) (Microsoft Course 2565)**

Instructor: Stephen Jack Lewin, M.S.  
When: Saturdays, September 8-October 6,  
9am-5pm; 5 meetings  
Where: 4199 Campus Dr., Suite F, Irvine  
Fee: TBA  
Reg #: 00202