Microsoft Certification Preparation Program

Courses to Help You Learn about Microsoft Technologies and Prepare for Microsoft Certification Exams

Visual Studio 2005
and
SQL Server 2005

- Microsoft Certified Technology Specialist
- Microsoft Certified IT Professional
- Microsoft Certified Professional Developer

UC Irvine Extension is a member of the Microsoft IT Academy Program
Microsoft IT Academy Program
PROGRAM OVERVIEW

An increasing number of organizations are implementing Visual Studio 2005 and SQL Server 2005 as their platforms of choice for database-driven application development. To help developers and database administrators improve their skills and gain recognition for their knowledge, Microsoft has developed a comprehensive certification system for these flagship products. There are three levels of certification: the Technology Series, the Professional Series, and the Architect Series. UC Irvine Extension is pleased to offer courses to help you prepare for the Technology and the Professional Series certification examinations.

UC Irvine Extension has partnered with EmpowerTrain, an Irvine-based training company that specializes in high-quality, hands-on education, to offer Microsoft Official Curricula (MOC) in all our certification preparation courses. In addition, our instructors are certified in the subject areas they teach and have substantial, ongoing working experience in industry. They bring practical knowledge “from the trenches” into the classroom to augment the Microsoft course material.

WHY GET CERTIFIED?

Becoming certified by Microsoft shows your employer, clients, and colleagues that you have mastered a set of specific skills for implementing Microsoft-based IT business solutions. Microsoft certification is recognized throughout the IT industry and represents credible technical knowledge achieved through experience and training.

In addition, Microsoft Certified Professionals receive special benefits from Microsoft including access to technical and product information directly from Microsoft through a security-enhanced area of the MCP Web site, access to exclusive discounts on products and services from selected companies through the security-enhanced MCP site, and other benefits, as well. See the Microsoft certification and training Web site for more information:

http://www.microsoft.com/traincert/mcp/benefits/default.asp

WHO SHOULD TAKE THIS PROGRAM?

Extension’s Microsoft-certified courses move at a fast pace. Students should have previous experience working in a Windows environment and should have good analytical and problem-solving skills. It is important to follow the courses sequentially, in the order they are listed below. Note that some courses are applicable to more than one exam and most exams require more than one course. There is not a one-to-one relationship between courses and exams.
PROGRAM DESCRIPTIONS

Technology Series

UC Irvine Extension can help you prepare for these four Technology Series certifications:

- Technology Specialist: .NET Framework 2.0 Web Applications
- Technology Specialist: .NET Framework 2.0 Windows Applications
- Technology Specialist: .NET Framework 2.0 Distributed Applications
- Technology Specialist: SQL Server 2005

The tables below list the required exams for each certification along with the UC Irvine Extension courses that can help you prepare for those exams.

### Technology Specialist: .NET Framework 2.0 Web Applications

<table>
<thead>
<tr>
<th>Required Exams</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-536</td>
<td>- Introduction to C# Programming for the Microsoft .NET Platform (MS Course 2124) (3.5 Units)</td>
</tr>
<tr>
<td>Technology Specialist: Microsoft .NET Framework 2.0 - Application Development Foundation</td>
<td>- Programming the Microsoft .NET Framework with C# (MS Course 2349) (3.5 Units)</td>
</tr>
<tr>
<td>Exam 70-528</td>
<td>- Core Web Application Technologies (ASP.NET) with Microsoft Visual Studio 2005 (MS Course 2543) (2.0 Units)</td>
</tr>
<tr>
<td>Technology Specialist: Microsoft .NET Framework 2.0 - Web-Based Client Development</td>
<td>- Advanced Web Application Technologies (ASP.NET) with Microsoft Visual Studio 2005 (MS Course 2544) (1.5 Units)</td>
</tr>
<tr>
<td></td>
<td>- Core Data Access (ADO.NET) with Microsoft Visual Studio 2005 (MS Course 2541) (2.0 Units)</td>
</tr>
<tr>
<td></td>
<td>- Advanced Data Access (ADO.NET) with Microsoft Visual Studio 2005 (MS Course 2542) (1.5 Units)</td>
</tr>
</tbody>
</table>

### Technology Specialist: .NET Framework 2.0 Windows Applications

<table>
<thead>
<tr>
<th>Required Exams</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-536</td>
<td>- Introduction to C# Programming for the Microsoft .NET Platform (MS Course 2124) (3.5 Units)</td>
</tr>
<tr>
<td>Technology Specialist: Microsoft .NET Framework 2.0 - Application Development Foundation</td>
<td>- Programming the Microsoft .NET Framework with C# (MS Course 2349) (3.5 Units)</td>
</tr>
<tr>
<td>Exam 70-526</td>
<td>- Core Windows Forms Technologies with Microsoft Visual Studio 2005 (MS Course 2546) (2.0 Units)</td>
</tr>
<tr>
<td>Technology Specialist: Microsoft .NET Framework 2.0 - Windows-Based Client Development</td>
<td>- Advanced Windows Forms Technologies with Microsoft Visual Studio 2005 (MS Course 2547) (1.5 Units)</td>
</tr>
<tr>
<td></td>
<td>- Core Data Access (ADO.NET) with Microsoft Visual Studio 2005 (MS Course 2541) (2.0 Units)</td>
</tr>
<tr>
<td></td>
<td>- Advanced Data Access (ADO.NET) with Microsoft Visual Studio 2005 (MS Course 2542) (1.5 Units)</td>
</tr>
</tbody>
</table>
Technology Specialist: .NET Framework 2.0 Distributed Applications

<table>
<thead>
<tr>
<th>Required Exams</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-536  Technology Specialist: Microsoft .NET</td>
<td>• Introduction to C# Programming for the Microsoft .NET</td>
</tr>
<tr>
<td>Framework 2.0 - Application Development Foundation</td>
<td>Platform (MS Course 2124) (3.5 Units)</td>
</tr>
<tr>
<td></td>
<td>• Programming the Microsoft .NET Framework with C# (MS Course 2349) (3.5</td>
</tr>
<tr>
<td></td>
<td>Units)</td>
</tr>
</tbody>
</table>

| Exam 70-529  Microsoft .NET Framework 2.0 - Distributed | • Core Distributed Application (Web Services) Development with Microsoft Visual |
| Application Development                                 | Studio 2005 (MS Course 2548) (2.0 Units)                                  |
|                                                       | • Advanced Distributed Application (Web Services) Development with Microsoft Visual Studio 2005 (MS Course 2549) (1.5 Units) |

Technology Specialist: SQL Server 2005

<table>
<thead>
<tr>
<th>Required Exam</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-431  Technology Specialist: Microsoft SQL</td>
<td>• Implementing a Microsoft SQL Server 2005 Database (MS Course 2779) (2.0</td>
</tr>
<tr>
<td>Server 2005 - Implementation and Maintenance</td>
<td>Units)</td>
</tr>
<tr>
<td></td>
<td>• Maintaining a Microsoft SQL Server 2005 Database (MS Course 2780) (2.0</td>
</tr>
<tr>
<td></td>
<td>Units)</td>
</tr>
</tbody>
</table>

**Professional Series**

UC Irvine Extension can help you prepare for these Professional Series certifications:

- Microsoft Certified IT Professional: Database Developer
- Microsoft Certified IT Professional: Database Administrator

Please note that Microsoft has not yet released certified courses for the Microsoft Certified IT Professional Developer certification exams so these certifications are not presented in this brochure.

The tables below list the required exams for each of the SQL Server 2005 certifications along with the UC Irvine Extension courses that can help you prepare for those exams. Please note that before taking the Professional level exams, you need to complete the appropriate Technology Specialist certification exam(s) as indicated below.
Microsoft Certified IT Professional: Database Developer (must complete Exam 70-431, Microsoft Certified Technology Specialist: SQL Server 2005 in addition to the exams listed below)

<table>
<thead>
<tr>
<th>Required Exams</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-441</td>
<td>• Designing Microsoft SQL Server 2005 Server-Side Solutions (MS Course 2781) (2.0 Units)</td>
</tr>
<tr>
<td>Microsoft Certified IT Professional: Designing Database Solutions by Using Microsoft SQL Server 2005</td>
<td>• Designing Microsoft SQL Server 2005 Databases (MS Course 2782) (1.5 Units)</td>
</tr>
<tr>
<td>Exam 70-442</td>
<td>• Designing Microsoft SQL Server 2005 Server-Side Solutions (MS Course 2781) (2.0 Units)</td>
</tr>
<tr>
<td>Microsoft Certified IT Professional: Designing and Optimizing Data Access by Using Microsoft SQL Server 2005</td>
<td>• Designing the Data Tier for Microsoft SQL Server 2005 (MS Course 2783) (1.0 Unit)</td>
</tr>
<tr>
<td></td>
<td>• Tuning and Optimizing Queries Using Microsoft SQL Server 2005 (MS Course 2784) (2.0 Units)</td>
</tr>
</tbody>
</table>

Microsoft Certified IT Professional: Database Administrator (must also complete Exam 70-431, Microsoft Certified Technology Specialist: SQL Server 2005 in addition to the exams listed below)

<table>
<thead>
<tr>
<th>Required Exams</th>
<th>UC Irvine Extension Certified Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 70-443</td>
<td>• Designing a Microsoft SQL Server 2005 Infrastructure (MS Course 2786) (1.5 Units)</td>
</tr>
<tr>
<td>Microsoft Certified IT Professional: Designing a Database Server Infrastructure by Using Microsoft SQL Server 2005</td>
<td>• Designing Security for Microsoft SQL Server 2005 (MS Course 2787) (1.5 Units)</td>
</tr>
<tr>
<td>Exam 70-444</td>
<td>• Designing Security for Microsoft SQL Server 2005 (MS Course 2787) (1.5 Units)</td>
</tr>
<tr>
<td>Optimizing and Maintaining a Database Administration Solution by Using Microsoft SQL Server 2005</td>
<td>• Administering and Automating Microsoft SQL Server 2005 Databases and Services 2005 (MS Course 2789) (1.0 Units)</td>
</tr>
<tr>
<td></td>
<td>• Troubleshooting and Optimizing Database Servers Using Microsoft SQL Server 2005 (MS Course 2790) (1.5 Units)</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

Please note: Courses are grouped by category (Visual Studio or SQL Server) and listed in order of increasing Microsoft course number. The UC Irvine Extension course numbers, with the prefix “I&CSCI,” are in parentheses.

Microsoft Visual Studio Application Development

Microsoft Course 2124 (I&CSCI X403.01)
Introduction to C# Programming for the Microsoft .NET Platform 3.5 Units
Gain the knowledge and skills needed to develop C# applications for the Microsoft .NET platform. This Microsoft certified course is designed for experienced developers who already have programming experience in Visual Basic, C, C++, or Java and typically develop business solutions. The course focuses on the C# program structure, language syntax, and implementation details. C# was created to be the programming language best suited for writing .NET enterprise applications. C# combines the high productivity of Microsoft Visual Basic® with the raw power of C++. It is a simple, object-oriented, and type-safe programming language that is based on the C and C++ family of languages.

Microsoft Course 2349 (I&CSCI X403.02)
Programming for the Microsoft .NET Framework with C# 3.5 Units
Expand your C# programming skills and learn how to use the features and capabilities of the Microsoft .NET Framework. This Microsoft certified course is designed for experienced developers who already have programming experience in Visual Basic, C, C++, or Java, and have begun learning C# (see prerequisites). The course provides a thorough understanding of the .NET Framework including key concepts and terminology. You'll explore .NET Framework features used to code, debug, tune, and deploy applications.

Microsoft Course 2541 (I&CSCI X403.11)
Core Data Access (ADO.NET) with Visual Studio 2005 2.0 Units
Gain the knowledge and skills needed to develop data-access applications using the Microsoft .NET Framework and Microsoft Visual Studio 2005. This course shows you how to access and work with data in a relational database by using Microsoft ADO.NET. You'll also learn how to create, read, and write XML data.

Microsoft Course 2542 (I&CSCI X403.16)
Advanced Data Access (ADO.NET) with Visual Studio 2005 1.5 Units
This two-day instructor-led workshop provides students with the knowledge and skills needed to use advanced data access features and techniques in the Microsoft .NET Framework and Microsoft Visual Studio 2005. The workshop describes how to access data and how to implement database functionality by using Microsoft ADO.NET 2.0 and
Microsoft SQL Server 2005. The workshop also describes how to locate, edit, and transform XML by using XPath and Extensible Style sheet Language for Transformations (XSLT).

**Microsoft Course 2543 (I&CSCI X403.12)**
*Core Web Application Technologies (ASP.NET) with Microsoft Visual Studio 2005* 2.0 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.

**Microsoft Course 2544 (I&CSCI X403.13)**
*Advanced Web Application Technologies (ASP.NET) with Microsoft Visual Studio 2005* 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 Course 2546 (I&CSCI X403.14)**
*Core Windows Forms Technologies with Microsoft Visual Studio 2005* 2.0 Units
Gain the knowledge and skills needed to develop Microsoft Windows Forms applications using Microsoft Visual Studio 2005. The workshop focuses on user interfaces, program structure, and implementation details.

**Microsoft Course 2547 (I&CSCI X403.15)**
*Advanced Windows Forms Technologies with Microsoft Visual Studio 2005* 1.5 Units
Build upon your knowledge of Visual Studio 2005 forms development and gain the skills needed to develop advanced Microsoft Windows Forms applications. This workshop focuses on advanced techniques for building sophisticated user interfaces, elaborate program structures, and related implementation details.

**Microsoft Course 2548 (I&CSCI X403.17)**
*Core Distributed Application (Web Services) Development with Microsoft Visual Studio 2005* 2.0 Units
Gain the knowledge and skills needed to develop distributed applications using the Microsoft .NET Framework and Microsoft Visual Studio 2005. This workshop focuses on building distributed applications by using Web services, remoting, Microsoft Message Queuing, and serviced components.
Microsoft Course 2549 (I&CSCI X403.18)
*Advanced Distributed Application (Web Services) Development with Microsoft Visual Studio 2005* 1.5 Units
Gain the knowledge and skills needed to develop advanced distributed applications using Microsoft Visual Studio 2005. The workshop focuses on advanced features of Web Services Enhancements (WSE) 3.0 and message queuing.

**Microsoft SQL Server 2005 Database**

Microsoft Course 2779 (I&CSCI X450.31)
*Implementing a Microsoft SQL Server 2005 Database* 2.0 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.

Microsoft Course 2780 (I&CSCI X450.32)
*Maintaining a Microsoft SQL Server 2005 Database* 2.0 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.

Microsoft Course 2781 (I&CSCI X450.38)
*Designing Microsoft SQL Server 2005 Server-Side Solutions* 2.0 Units
This course is in development.
Gain the knowledge and skills needed to design server-side solutions for Microsoft SQL Server 2005. The course focuses on teaching database developers who work in enterprise environments to identify and place database technologies during design to achieve a suitable solution that meets the needs of an organization. Students will also learn to consider the solution from a system-wide view instead of from a single database or server perspective.

Microsoft Course 2782 (I&CSCI X450.39)
*Designing Microsoft SQL Server 2005 Databases* 1.5 Units
This course is in development.
Gain the knowledge and skills needed to design databases for Microsoft SQL Server 2005 using business requirements to guide your decisions (beyond structured third normal form [3NF] modeling techniques). Students will also learn to incorporate security requirements throughout their design.
Microsoft Course 2783 (I&CSCI X450.40)
*Designing the Data Tier for Microsoft SQL Server 2005 Database*  
2.0 Units
This course is in development.
This one-day instructor-led clinic provides students with the knowledge and skills needed to design the data tier for Microsoft SQL Server 2005. The clinic focuses on teaching database developers working in enterprise environments to understand and decide how application developers are going to access and consume their data. This is a major failure point of database solutions today.

Microsoft Course 2784 (I&CSCI X450.35)
*Tuning and Optimizing Queries using Microsoft SQL Server 2005*  
2.0 Units
This workshop is designed for professional database developers who have at least three years of experience developing SQL Server solutions for the enterprise. It provides the knowledge and skills needed to evaluate and improve queries and query response times. The workshop focuses on systematic identification and optimization of database factors that impact query performance.

Microsoft Course 2786 (I&CSCI X450.41)
*Designing a Microsoft SQL Server 2005 Infrastructure*  
1.5 Units
This course is in development.
Gain the knowledge and skills needed to design a Microsoft SQL Server 2005 database infrastructure. The course focuses on the development of strategies for data archiving, consolidation, distribution, and recovery. The course also stresses the importance of capacity analysis and emphasizes the tradeoffs that need to be made during design. This is the first course in the database administration curriculum and will serve as the entry point for other courses in the curriculum.

Microsoft Course 2787 (I&CSCI X450.42)
*Designing Security for Microsoft SQL Server 2005*  
1.5 Units
This course is in development.
Gain the knowledge and skills needed to design security for database systems for enterprise environments using Microsoft SQL Server 2005. The course emphasizes that students should think about the whole environment, which includes business needs, regulatory requirements, network systems, and database considerations during design. Students will also learn how to monitor security and respond to threats.

Microsoft Course 2789 (I&CSCI X450.36)
*Tuning and Optimizing Queries using Microsoft SQL Server 2005*  
1.0 Unit
Gain the knowledge and skills needed to administer and automate Microsoft SQL Server 2005 databases and servers. This course focuses on the need to maintain administration and
automation information. Topics include planning an automated system for database and server maintenance, documenting administration information in a run book, and managing SSIS packages, replication, and reporting services.

**Microsoft Course 2790 (I&CSCI X450.37)**

*Troubleshooting and Optimizing Database Servers Using Microsoft SQL Server 20051.5 Units*

Gain the knowledge and skills needed to determine and troubleshoot performance issues using Microsoft SQL Server 2005. The primary focus of this workshop is to teach the overall process of troubleshooting. It includes learning how to establish monitoring standards and baselines, determining performance thresholds, and focusing the investigation on specific issues.

**Current Course Schedule:**  [http://www.empowertrain.com](http://www.empowertrain.com)

For more information about Microsoft certification or the official courses, please visit the Microsoft Web site:

- Home page: [http://www.microsoft.com](http://www.microsoft.com)
- Find training by course no.: [http://www.microsoft.com/learning/training/find/findcourse.mspx](http://www.microsoft.com/learning/training/find/findcourse.mspx)

**UC Irvine Extension Web Pages**

- EmpowerTrain home: [http://www.empowertrain.com](http://www.empowertrain.com)
- Home page: [http://unex.uci.edu](http://unex.uci.edu)