



Key Data

Course #: 8340A

Number of Days: 2

Format: Instructor-Led

Certification Exams:

Certification Track:

This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.

Course content, prices, and availability are subject to change without notice.

Course Syllabus

Development II: Introduction to X++

Elements of this syllabus are subject to change.

Introduction

This 2-day course introduces the student to development in Microsoft® Business Solutions – Axapta® using X++. This course begins with learning the basics of X++ and its relationship to object-oriented programming as well as the tools required to develop in Microsoft Axapta. The student will then learn more about specific control structures, accessing the database using X++, and handling exceptions in Microsoft Axapta. This course is meant to be an introductory course to development in Microsoft Axapta using X++.

Audience

This course is intended for individuals who will be developing within Microsoft Axapta using X++. This audience typically includes technical consultants who will be working with Microsoft Axapta to develop customizations and modifications to meet clients' needs. This course will be most beneficial for someone who is new to the concepts of object-oriented programming and programming using X++. Additionally, consultants who are responsible for training or supporting the customer will benefit from this course.

At Course Completion

After completing this course, students will be able to:

- Understand the basics of X++ programming and the development tools needed
- Understand object-oriented concepts in Microsoft Axapta
- Create basic application modifications using X++ constructs
- Access the Microsoft Axapta database using X++ code and catch exceptions throughout the program

Prerequisites

It is required that students have completed:

- Development I: MorphX

Student Materials

The student materials include a comprehensive workbook and other necessary materials for this class.

- Development II: Introduction to X++ Course Manual

For a referral to a Microsoft Certified Technical Education Center in your area, see the Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert>. Call your local Microsoft Certified Technical Education Center for more information and to register for classes.

Chapter 1: Introduction to X++

This chapter gives a foundation for understanding development using X++. The student will also be able to use the main development tools in Microsoft Axapta.

Sections
<ul style="list-style-type: none">▪ What is X++?▪ Object-Oriented Programming▪ Development Tools▪ Jobs▪ Best Practices
Exercises
<ul style="list-style-type: none">▪ Test Your Knowledge▪ Test Your Skills

After completing this chapter, students will be able to:

- Identify key features of developing with X++
- Describe the basic foundation of Object-Oriented Programming
- Understand the basics of development tools within Microsoft Axapta
- Know the foundations of Microsoft Axapta's Development Best Practices

Chapter 2: Objects and Classes

This chapter discusses the concept of object-oriented programming and its relation to X++. By the end of this chapter, the student will have a solid foundation to develop in Microsoft Axapta using object-oriented concepts.

Sections
<ul style="list-style-type: none">▪ Introduction to Objects, Methods, and Classes▪ Classes▪ Objects▪ Methods and Variables
Exercises
<ul style="list-style-type: none">▪ Create a new class▪ Instantiating objects of classes▪ Opening\Executing classes▪ Calling methods from class objects▪ Using variables▪ Test Your Knowledge▪ Test Your Skills

After completing this chapter, students will be able to:

- Appreciate the objects and classes within X++ development
- Create a new class
- Know how to instantiate objects
- Understand the use of object and class methods
- Use variables and understand scope within X++

Chapter 3: X++ Control Statements

This chapter focuses on teaching the student about programming constructs in X++, such as loops, conditional statements, and functions within X++. In addition, the student will be able to effectively communicate with the end user using X++ output commands.

Sections
<ul style="list-style-type: none">▪ X++ Constructs▪ Communication Tools
Exercises
<ul style="list-style-type: none">▪ Using Loops▪ Printing to the screen▪ Working with Boxes▪ Creating Infologs▪ Running a Dialog Box▪ Test Your Knowledge▪ Test Your Skills

After completing this chapter, students will be able to:

- Understand Conditional Statements in X++
- Create Loops in X++
- Use built-in Functions in Axapta
- Use the most basic X++ output commands
- Aid in development using output commands
- Communicate effectively with the end-user

Chapter 4: Accessing the Database

This chapter teaches the student how to develop modifications that interact with the Microsoft Axapta database. This functionality is often needed, making this an important topic in learning development with X++.

Sections
<ul style="list-style-type: none">▪ Searching for Records▪ Data Manipulation▪ Queries
Exercises
<ul style="list-style-type: none">▪ Test Your Knowledge▪ Test Your Skills

After completing this chapter, students will be able to:

- Search for records using Select and While Select commands
- Modify search criteria using sorting and ranging
- Manipulate data using insert, update, and delete functions
- Understand how to use and build queries using kernel classes

Chapter 5: Exception Handling

This chapter instructs the student how to have programs handle exceptions that occur when code is executed. This is an essential skill in all programming to make the application execute more efficiently.

Sections
<ul style="list-style-type: none">▪ What is Exception Handling?▪ Using the Try and Catch Commands▪ Throwing Exceptions▪ Infolog and Error Catching
Exercises
<ul style="list-style-type: none">▪ Execute error catching code to understand exception handling▪ Test Your Knowledge▪ Test Your Skills

After completing this chapter, students will be able to:

- Understand the exception handling mechanism in Microsoft Axapta
- Use the Try, Catch, and Retry commands
- Throw Exceptions
- Know best practices with Infologs and exception handling

Appendix A: Solutions

This Appendix contains all the answers to the chapter exercises, Test Your Knowledge, and Test Your Skills sections.