

# MS 450 Mobile Application Development

## Course Description

In this course students will learn how to develop Silverlight-based utility applications and XNA-based games for the Windows Phone 7 and how to monetize them using the Windows Phone 7 MarketPlace.

## Prerequisites:

Programming Level 1+

Data Base Level 1

## Required Software Tools

Computer running Windows 7 Home Premium, Enterprise or Ultimate

Visual Studio 2010 Express for Windows Phone, Professional or Ultimate edition

Microsoft Expression Studio

[Windows Phone 7 Developer Tools Beta \(Sept 19 RTM refresh\)](#)

[Windows Phone 7 Developer Training Kit](#)

[XNA Game Studio 4.0](#)

## Optional Resources

[Windows Phone 7 MarketPlace Info](#)

[Windows Phone 7 Developer MarketPlace](#)

[Microsoft DreamSpark \(for free MarketPlace registration\)](#)

## Textbooks

Microsoft Silverlight 4 Step-by-Step Publisher: Microsoft Press; 1 edition (June 30, 2010) ISBN-10: 073563887X ISBN-13: 978-0735638877 Laurence Moroney (Author)

Beginning Windows Phone 7 Development Publisher: Apress (Nov 15, 2010) ISBN-10: 1430232161 ISBN-13: 978-1430232162 Henry Lee (Author)

[Programming Windows Phone 7](#) Publisher: Microsoft Press; 1 edition (October 15, 2010) ISBN-10: 0735643350 ISBN-13: 978-0735643352 Charles Petzold (Author)

Pro Windows Phone 7 Development Publisher: Apress (November 15, 2010) ISBN-10: 1430232196 ISBN-13: 978-1430232193 Rob Cameron (Author)

[Learning Windows Phone Programming](#) Publisher: O'Reilly 1 edition (December 15, 2010) ISBN-10: 1449388361 ISBN-13: 978-1449388362 Yochay Kiriaty (Author) and Jaime Rodriguez (Author)

Module One

Lecture: [Understanding MarketPlace and Making Money with WP7 Applications](#)

Reading: [Application Platform Overview for Windows Phone](#)

Hands-on Assignment: Survey of cool apps on i-Phone, Google & Windows Mobile MarketPlace

Quiz: WP7 MarketPlace Essentials

## Module Two

Lecture: [Understanding the Windows Phone 7 Development Tools](#)

Reading: Petzold Chapter 1 – Phone Hardware and your Software

Hands-on Assignment: Tools installation & configuration

Quiz: WP7 Software Tools

## Module Three

Lecture: [Overview of the Windows Phone 7 Application Platform](#)

Reading: Petzold Chapter 2: Hello Windows Phone

Hands-on Assignment: Hello Windows Phone (Training Kit)

Quiz:

## Module Four

Lecture: [An In-Depth View of Building Applications for the WP7 with Silverlight \(Part 1\)](#)

Reading: Kiriaty & Rodriquez Chapter 2 – Building Your First Windows Phone Application

Hands-on Assignment: Building your First Windows Phone Application (Training Kit)

Quiz:

## Module Five

Lecture: [An In-Depth View of Building Applications for the WP7 with Silverlight \(Part II\)](#)

Reading: Petzold Chapter 3: Code and XAML

Hands-on Assignment: Windows Phone Navigation and Controls (Training Kit)

Quiz:

## Module Six

Lecture: [Building Windows Phone 7 Games with XNA Game Studio 4.0](#)

Reading: Petzold Chapter 5: XNA Principles of Movement

Hands-on Assignment: Game Development with XNA Framework – Part A (Training Kit)

Quiz:

## Module Seven

Lecture: [Building High Performance 3D Games for Windows Phone](#)

Reading: Petzold Chapter 6: Textures and Sprites

Hands-on Assignment: Game Development with XNA Framework – Part B (Training Kit)

Quiz:

#### Module Eight

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Nine

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Ten

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Eleven

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Twelve

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Thirteen

Lecture:

Reading:

Hands-on Assignment:

Quiz:

#### Module Fourteen

Lecture:

Reading:

Hands-on Assignment:

Quiz:

Additional Information

Advisory Board

Contributors:

# Appendix

## List of Proposed Courses and Certificates

### Mobile Application Development Certificate

MS 450 Mobile Application Development

MS 455 Mobile Game Development with XNA

MS 459 Mobile Application Competition – Imagine Cup