**Course Description**

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| **WEEK** | **TOPIC** | **OUTLINE** |
| Week 1 | Introduction to mobile device application development. | * Mobile application platforms, tools, and technologies. * Mobile application frameworks. * Mobile application design considerations. |
| Week 2 | Working with Data. | * Database integration for mobile devices. * Data sets and data providers for mobile applications. * XML for application data storage and interchange, and other remote data access options. |
| Week 3 | Synchronizing data with remote databases | * An overview of data synchronization using merge replication. * Choosing the appropriate synchro options. |
| Week 4 | Working with the mobile user interface. | * Mobile user interface considerations. * Designing the User Interface. * User input. * Customizing controls. |
| Week 5 | Creating secure applications for the mobile environment. | * An overview of security in an enterprise environment. * Cryptography. * Code signing, and security for remote databases. |
| Week 6 | Developing mobile applications. | * Mobile appl design. * MAD. * Testing and debugging mobile applications. * Intro to the survey sample appl. * Creating the server-side components. * Creating smart client components. * Distributing mobile applications to devices. * Multimedia on mobile devices (graphics, sound, music, video, games). * System support for mobile applications. |