**Day One**

15 minutes **Introductions**

60 minutes **Welcome to AW Computing**

*Watch Me 1-1 (5 min): Explore the Certification App*

*Join Me 1-2 (5 min): Prepare Your Training Org*

*Join Me 1-3 (5 min): Create a Sandbox*

*Join Me 1-4 (5 min): Download the Apex Developer’s Guide*

120 minutes **Building Objects and Fields**

* Understanding Objects on the Force.com Platform
* Creating Custom Objects
* Creating Custom Fields

*Join Me 2-1 (15 min): Create a Custom Object*

*Join Me 2-2 (15 min): Create Custom Fields*

* Creating Relationships Between Objects

*Join Me 2-3 (20 min): Create Relationship Fields*

100 minutes **Working Effectively with Objects and Fields**

* CreatingFormula Fields

*Join Me 3-1 (10 min): Create a Formula Field*

* Creating Roll-Up Summary Fields

*Join Me 3-2 (10 min): Create a Roll-Up Formula Field*

*Your Turn 3-3 (10 min): Create a Formula Field that References Roll-Up Summary Fields*

* Understanding Record Types

*Watch Me 3-4 (10 min): Understand Record Types*

* Building a Data Model on the Force.com Platform

90 minutes **Programming with Apex**

* Getting Started with Apex

*Join Me 4-1 (10 min):* *Logging into a Sandbox*

*Join Me 4-2 (15 min): See Apex in Action*

*Join Me 4-3 (10 min): Create and Use an Apex Class*

*Watch Me 4-4 (5 min): Observe the Effects of Versioning*

*Join Me 4-5 (20 min): Take a Quick Tour of Apex*

**Day Two**

90 minutes **Programming with Apex (cont.)**

* What Makes Apex Different?

*Join Me 4-6 (10 min):* *Examine Implicit Operations*

*Watch Me 4-7 (5 min): Profile Limits Using Developer Console*

* Working with sObjects

*Your Turn 4-8 (15 min): Work with a Custom Object*

*Join Me 4-9 (5 min): Use Record Ids to Access an Account in the UI*

115 minutes **Use SOQL to Query Your Org’s Data**

* Using SOQL to Query Data

*Watch Me 5-1 (5 min): Create and Run Query in the Developer Console*

*Your Turn 5-2 (20 min): Write a SOQL Query that Uses a WHERE Clause*

* Writing and Processing a SOQL Query in Apex

*Your Turn 5-3 (10 min): Write and Execute a SOQL Query in Apex*

* Creating a Dynamic Query at Run Time

*Your Turn 5-4 (10 min): Write a Dynamic Query in Apex*

80 minutes **Use SOQL to Query Parent-Child Relationships**

* Understanding Relationship Queries
* Querying Child-to-Parent Relationships

*Your Turn 6-1 (15 min): Write and Test Child-to-Parent Relationship Queries*

* Querying Parent-to-Child Relationships

*Your Turn 6-2 (20 min): Query Account and Related Contacts*

95 minutes **DML Essentials**

* Options for Persisting Data
* Invoking DML Events

*Your Turn 7-1 (25 min): Execute DML Commands*

* Handling DML Errors and Exceptions

*Your Turn 7-2 (15 min): Handle DML Errors and Exceptions*

**Day Three**

80 minutes **Trigger Essentials**

* Automating Logic
* Defining a Trigger

*Your Turn 8-1 (5 min): Define a Trigger*

* Defining Trigger Logic

*Join Me 8-2 (15 min): Define the Trigger's Business Logic*

70 minutes **Apex Class Essentials**

* Using an Apex Class
* Defining an Apex Class

*Your Turn 9-1 (15 min): Define an Apex Class*

* Determining Data Access for an Apex Class

80 minutes **The Save Order of Execution and Apex Transactions**

* Exploring the Save Order of Execution

*Watch Me 10-1 (10 min): Explore the Implicit Firing of Triggers*

*Your Turn 10-2 (10 min): View the Events that Occur During a Rollback*

* Working with Apex Transactions

*Watch Me 10-3 (10 min): See the Save Order of Execution in Action*

75 minutes **Testing Essentials**

* Describing Apex's Testing Framework
* Creating Test Data

*Your Turn 11-1 (10 min): Make Test Data Available to Test Methods*

* Writing and Running an Apex Test

*Your Turn 11-2 (10 min): Write and Run an Apex Test*

50 minutes **Testing Strategies**

* Understanding the Side Effects of Testing

*Your Turn 12-1 (10 min): Explore Code Coverage*

* Testing Using Best Practices

95 minutes **Strategies for Designing Efficient Apex Solutions**

* Working Efficiently with the Database

*Your Turn 13-1 (15 min): Refactor a Trigger to Avoid SOQL Limits*

*Your Turn 13-2 (15 min): Refactor a Trigger to Avoid DML Limits*

**Day Four**

95 minutes **Strategies for Designing Efficient Apex Solutions (cont.)**

* Designing Triggers
* Designing Classes

120 minutes **Trigger Design Strategy**

* Analyzing the Problem
* Creating a Solution

*Your Turn 14-1 (5 min): Create a Formula Field to Eliminate a Query*

*Your Turn 14-2 (5 min): Create Fields for Counting Certifications Elements*

*Your Turn 14-3 (15 min): Create Collections to Filter the Query*

*Your Turn 14-4 (20 min): Use a Map to Aggregate Results*

*Your Turn 14-5 (15 min): Create Certification Held Records*

*Your Turn 14-6 (10 min): Use a Workflow to Avoid Creation of Duplicate Records (optional)*

55 minutes **Creating Visualforce Pages**

* Understanding Visualforce

*Join Me 15-1 (10 min): Create a Simple Visualforce Page*

* Creating a Visualforce Page
* Displaying Record Data and Launching a Visualforce Page

*Your Turn 15-2 (15 min): Display Data in a Visualforce Page*

50 minutes **Exploring the View and Controller Layers of Visualforce**

* Accessing Data on Related Records

*Join Me 16-1 (15 min): Create a Simple Technician Status Page*

* Exploring Visualforce Tags and Built-in Styling

*Your Turn 16-2 (10 min): Refine Your Page and Add Navigational Links*

140 minutes **Working with Custom Controllers and Controller Extensions**

* Referencing a Custom Controller

Your Turn 17-1 (5 min): Reference a Controller Extension in a Visualforce Page

* Working with Getters, Setters, and Properties

Your Turn 17-2 (10 min): Create a Simple Read-Only Property

**Day Five**

140 minutes **Working with Custom Controllers and Controller Extensions (cont.)**

* Working with Action Methods

Your Turn 17-3 (15 min): Writing a Read/Write Property in a Custom Controller

Your Turn 17-4 (10 min): Implementing the Search Button

Your Turn 17-5 (10 min): Redirecting to a Results Page

* Handling Basic Errors

Your Turn 17-6 (10 min): Handle Basic Save Errors in Your Method

120 minutes **Working with Lists Controllers and SOSL Queries**

* Working with Standard List Controllers

*Join Me 18-1 (15 min): Create a Page to Display a List of Records*

* Writing a Simple SOSL Query

*Your Turn 18-2 (15 min): Integrate SOSL Search in a Visualforce Page*

* Creating a Custom List Controller

Your Turn 18-3 (15 min): Create a Simple Search Page

60 minutes **Visualforce Development Considerations**

* When to Use Visualforce

Your Turn 19-1 (5 min): Determine Whether a Declarative Solution Exists

* Visualforce and Governor Limits
* Security Considerations for Visualforce

*Your Turn 19-2 (10 min): Defend Against SOQL Injection*

* Developing Pages for Mobile Devices
* JavaScript in Visualforce

*Your Turn 19-3 (10 min): Create a Custom Button that Uses JavaScript*

100 minutes **Testing Visualforce Controllers**

* Understanding Visualforce Controller Testing

*Your Turn 20-1 (20 min): Write the Test Methods for the Constructor*

* Testing a Visualforce Controller Constructor
* Testing Action Methods

*Your Turn 20-2 (20 min): Write Unit Tests for Action Methods*

* Testing Getters, Setters, and Properties

*Your Turn 20-3 (20 min): Write Unit Tests for Getters and Setters*

15 minutes **Wrap Up**