



## Key Data

**Course #:** 8912

**Number of Days:** 3

**Format:** Instructor-Led

### Certification Exams:

This course helps you prepare for the following Microsoft Certified Professional exams:

- Microsoft Dynamics CRM 4.0 Customization and Configuration

### Certification Track:

- Microsoft Dynamics – Installation and Configuration
- Microsoft Dynamics - Development

**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

### **Customization and Configuration in Microsoft Dynamics CRM 4.0**

*Elements of this syllabus are subject to change.*

This three-day instructor-led course provides students with the tools to configure and customize Microsoft Dynamics CRM 4.0. Configuration topics include setting up business management functions such as:

- Business units
- Users
- Teams
- Security privileges and roles
- System Settings
- Multilingual User Interface Language Packs
- Currency Exchange Rates
- Multiple Organizations

The course also focuses on using the Microsoft Dynamics CRM 4.0 Customization tools to customize the following system components:

- Forms
- Views
- Entities
- Attributes
- Relationships
- Entity Mappings

The following customization topics are outside the scope of this course, but are introduced here to provide students with insight into potential advanced customization features:

- Application Event Programming
- Client Extensions
- Workflow
- SiteMap
- URL Addressable Forms
- IFrames
- SDK

### **Audience**

This course is intended for Microsoft Dynamics CRM Implementation Consultants and System Administrators and Customizers who will configure the application's organizational settings and customize the application using its built-in customization tools. The course is not intended for developers who customize the application using Web development, JavaScript (JScript), DHTML, and the Microsoft Dynamics CRM SDK.

## **At Course Completion**

The course completion objectives are:

- Configure a company's organizational structure within Microsoft Dynamics CRM
- Add user accounts
- Create and maintain security roles
- Create teams of users
- Create and configure multiple organizations within one implementation
- Configure system settings, currency exchange rates, and multilingual user interface language packs
- Import and export customizations
- Customize forms and views
- Customize database entities and attributes
- Customize entity relationships and mappings
- Identify areas where advanced customization functionality can be implemented

## **Prerequisites**

Participants in this course must have a working knowledge of how to use Microsoft Dynamics CRM 4.0. It is recommended, but not required, that students have completed Microsoft Dynamics CRM 4.0 Applications training. Because this course focuses on customizing database entities, attributes, relationships, and mappings, it is recommended that students have a basic understanding of Microsoft SQL Server and relational database functionality.

## **Student Materials**

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

## **Module 1: Configuring Business Units**

This module explains how to set up organizational structures by maintaining business units within an organization.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Business Units Overview</li><li>▪ Maintaining Business Units</li></ul>
<b>Lab 1.1: Maintaining Business Units</b>
<ul style="list-style-type: none"><li>▪ Add Business Units</li><li>▪ Reorganize Business Units</li><li>▪ Delete Business Units</li></ul>

The goals for completing this module are for students to:

- Identify why an organizational hierarchy is defined in Microsoft Dynamics CRM
- Identify the differences between the root business unit and all other business units
- Identify the guidelines that control maintenance of business units
- Create and maintain business units in Microsoft Dynamics CRM

## **Module 2: Configuring Security**

This module reviews the Microsoft Dynamics CRM security model, including security roles, privileges, and access levels. This module examines how to maintain permissions within security roles, and how security permissions are inherited across business units.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Microsoft Dynamics CRM Security Features</li><li>▪ Privileges</li><li>▪ Access Levels</li><li>▪ Security Roles</li><li>▪ Security Roles and Business Units</li><li>▪ Creating and Copying Security Roles</li><li>▪ Planning Considerations when Configuring Security</li></ul>
<b>Lab 2.1: Copying and Creating Roles</b>
<ul style="list-style-type: none"><li>▪ Creating a Custom Security Role</li><li>▪ Assigning a Role</li></ul>

The goals for completing this module are for students to:

- Identify how privileges, access levels, and security roles are used by Microsoft Dynamics CRM to ensure data integrity and privacy
- Distinguish between entity-based privileges and task-based privileges
- Differentiate between the five types of access levels used within the security roles
- Identify how Microsoft Dynamics CRM uses security roles
- Identify the advantages of using the default Microsoft Dynamics CRM security roles
- Identify the properties of the system's two default administrative roles
- Define the relationship between roles and business units
- Create new security roles
- Create new security roles by copying privileges and access levels from existing security roles
- Identify best practices to follow when configuring security roles

## **Module 3: Configuring Users and Teams**

This module explains how to define the users who access Microsoft Dynamics CRM and the teams that share Microsoft Dynamics CRM data.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ User Management Overview</li><li>▪ Adding and Maintaining User Accounts</li><li>▪ Team Management</li></ul>
<b>Lab 3.1: Managing User Accounts</b>
<ul style="list-style-type: none"><li>▪ Adding a Single User</li><li>▪ Adding Multiple Users</li><li>▪ Changing a Manager</li><li>▪ Disabling a User Account</li></ul>
<b>Lab 3.2: Managing Teams</b>
<ul style="list-style-type: none"><li>▪ Create Teams</li><li>▪ Add Users to a Team</li><li>▪ Share Data with a Team</li></ul>

The goals for completing this module are for students to:

- Review the characteristics of Microsoft Dynamics CRM's user management structure
- Create and maintain user accounts in Microsoft Dynamics CRM
- Identify the differences between adding a single user and adding multiple users at one time
- Identify the characteristics associated with each user licensing option
- Create and maintain teams of users in Microsoft Dynamics CRM

## **Module 4: Configuring Organizational Settings**

This module reviews a variety of configuration settings that enable each organization to tailor Microsoft Dynamics CRM to satisfy its business requirements. These settings control the appearance and functionality of the application; they are defined at the organization level and apply to all business units in a given implementation.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ System Settings</li><li>▪ Auto Numbering</li><li>▪ Fiscal Year Settings</li><li>▪ Multilingual User Interface (MUI)</li><li>▪ Multi-Currency</li></ul>
<b>Lab 4.1: Maintaining System Settings</b>
<ul style="list-style-type: none"><li>▪ Configuring System Settings</li><li>▪ Configuring Auto Numbering</li></ul>
<b>Lab 4.2: Installing MUI Language Packs</b>
<ul style="list-style-type: none"><li>▪ Installing French and Spanish MUI Language Packs</li><li>▪ Enabling MUI Language Packs</li><li>▪ Selecting a language for the Web application</li><li>▪ Installing a Language Pack on the Microsoft Dynamics CRM for Microsoft Office Outlook</li><li>▪ Selecting a language for the Microsoft Dynamics CRM for Office Outlook</li></ul>
<b>Lab 4.3: Importing Currency Exchange Rates</b>
<ul style="list-style-type: none"><li>▪ Import a Currency Exchange Rate file</li><li>▪ Manually Add a Currency and Exchange Rate</li><li>▪ Test Default Account Currency</li><li>▪ Test Base Currency</li><li>▪ Change the User's Default Currency</li><li>▪ Test the User's Default Currency</li></ul>

The goals for completing this module are for students to:

- Configure several "one-time" only organization settings that control various system-wide functionalities
- Identify the impact of each System Setting on end-user functionality
- Identify the impact of the Auto Numbering settings on end-user functionality
- Identify the impact of the Fiscal Year Settings on Sales Quota reporting
- Identify how Multilingual User Interface packs let users personalize their UI experience by displaying Microsoft Dynamics CRM in the language of their choice
- Examine how multicurrency enables monetary transactions and attributes to be defined in multiple currencies

## **Module 5: Customizing Microsoft Dynamics CRM Overview**

This module introduces all of the application features that can be customized in Microsoft Dynamics CRM and the different ways in which customizations can be applied. This is an introductory section that lays the foundation for the hands-on training that follows.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Customization Methodology</li><li>▪ Who Can Customize Microsoft Dynamics CRM?</li><li>▪ Microsoft Dynamics CRM Architecture</li><li>▪ Types of Customizations</li><li>▪ Upgrading Customizations</li><li>▪ Reusing Customizations</li><li>▪ Publishing Customizations</li></ul>
<b>Lab 5.1: Importing and Exporting Customizations</b>
<ul style="list-style-type: none"><li>▪ View the Contact form before importing customizations</li><li>▪ Import Customizations</li><li>▪ View the Contact form after customizations</li><li>▪ Export Customizations</li></ul>

The goals for completing this module are for students to:

- Recognize the importance of defining and using an effective implementation methodology while developing customizations
- Recognize the types of customizations that can be made based on the default Microsoft Dynamics CRM security roles
- Identify how the Microsoft Dynamics CRM architecture influences how and where users customize Microsoft Dynamics CRM
- Recognize some of the ways that Microsoft Dynamics CRM can be customized
- Identify how Microsoft Dynamics CRM's architecture enables organizations to safely upgrade their customizations
- Identify which customizations require publishing and the various ways to publish customizations
- Discover how to re-use customizations by exporting customizations made in one deployment and importing them into another

## **Module 6: Customizing Forms and Views**

This module examines how to customize the Microsoft Dynamics CRM user interface using the application's customization tools. This includes customizations to the forms used to enter and update data and the views that display lists of records.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Basic UI Customization Capabilities</li><li>▪ Form Customization Overview</li><li>▪ Form Customization – Editing Tabs</li><li>▪ Form Customization – Editing Sections</li><li>▪ Form Customization – Editing Fields</li><li>▪ Preview Your Customizations</li><li>▪ Preview Form Customization</li><li>▪ View Customization Overview</li><li>▪ View Customization</li></ul>

<b>Lab 6.1: Form Customization</b>
<ul style="list-style-type: none"><li>▪ Create a Custom Tab</li><li>▪ Update the Details and Administration Tabs</li><li>▪ Update the Preview form</li></ul>
<b>Lab 6.2: View Customization</b>
<ul style="list-style-type: none"><li>▪ Modify an existing view</li><li>▪ Create a new view</li><li>▪ Change an entity's default view</li><li>▪ Modify the Quick Find view</li><li>▪ Modify the Advanced Find view</li><li>▪ Save an Advanced Find query as a Personal view</li><li>▪ Modify an entity's Associated view</li></ul>

The goals for completing this module are for students to:

- Introduce the basic user interface components that can be customized to meet an organization's business requirements
- Identify the features of the form customization tool
- Examine how to organize data on a form by organizing the data in tabs
- Examine how to organize data within tabs by using sections
- Identify how to add and maintain fields on a form
- Examine how to test the appearance and behavior of a customized form prior to saving the customizations
- Examine how to customize an entity's Preview form
- Identify the types of views that can be customized
- Identify the different ways in which a view can be customized
- Examine what properties can be customized on a view and how to perform the customizations

## **Module 7: Customizing Entities and Attributes**

This module examines how to create new entities and attributes through Microsoft Dynamics CRM's built-in customization tools.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Customization Concepts</li><li>▪ Customizing Attributes</li><li>▪ Creating a Custom Entity</li></ul>
<b>Lab 7.1: Creating a Custom Attribute</b>
<ul style="list-style-type: none"><li>▪ Add a Custom Attribute</li><li>▪ Add the Attribute to the Entity's form</li><li>▪ Add the Attribute to the Preview form</li><li>▪ Create a Custom View</li><li>▪ Publish and Test</li></ul>
<b>Lab 7.2: Creating a Custom Entity</b>
<ul style="list-style-type: none"><li>▪ Create a Custom Entity</li><li>▪ Create Custom Attributes</li><li>▪ Update Entity Form</li><li>▪ Update Entity View</li><li>▪ Apply Custom Icons</li><li>▪ Update Custom Entity Permissions</li></ul>

The goals for completing this module are for students to:

- Review the types of entities and attributes available in system
- Create and edit attributes to meet an organization's business needs
- Examine how to create, configure, and delete custom entities
- Configure security settings to control access to and maintenance of custom entities

## **Module 8: Customizing Relationships and Mappings**

This module identifies the different types of supported relationships in Microsoft Dynamics CRM, as well as the types of behavior that control how certain actions taken on a record affect related records. This training also examines entity mapping.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Supported Entity Relationships</li><li>▪ Unsupported Entity Relationships</li><li>▪ One-to-Many Relationship Behavior</li><li>▪ Creating Entity Relationships</li><li>▪ Entity Mapping</li></ul>
<b>Lab 8.1: Create a Manual Many-to-Many Relationship</b>
<ul style="list-style-type: none"><li>▪ Create an Intersect Entity</li><li>▪ Create two Many-to-One Relationships based on the intersect entity and two related entities</li><li>▪ Add attributes to the intersect entity</li><li>▪ Expose Attributes on the Intersect Entity form</li><li>▪ Edit the Associated View</li><li>▪ Save and Publish</li><li>▪ Test the functionality</li></ul>
<b>Lab 8.2: Create a Native Many-to-Many Relationship</b>
<ul style="list-style-type: none"><li>▪ Update Entity Attribute</li><li>▪ Create a custom view</li><li>▪ Create a Custom Entity</li><li>▪ Create Custom Attributes</li><li>▪ Create a Many-to-Many relationship</li><li>▪ Create a Many-to-One relationship</li><li>▪ Update an entity form</li><li>▪ Update an entity Preview form</li></ul>
<b>Lab 8.3: Add a Mapping</b>
<ul style="list-style-type: none"><li>▪ Update Picklist Values</li><li>▪ Add a custom attribute</li><li>▪ Create an Entity Mapping</li><li>▪ Test the mapping</li></ul>
<b>Lab 8.4: Case Study</b>
<ul style="list-style-type: none"><li>▪ Create a Department Entity</li><li>▪ Add Department Attributes</li><li>▪ Create Account/Department relationship</li><li>▪ Create Department/Contact relationship</li><li>▪ Create Contact/Department relationship</li><li>▪ Modify the entities</li><li>▪ Create mappings</li><li>▪ Secure the new entity</li><li>▪ Test the functionality</li></ul>

The goals for completing this module are for students to:

- Identify the various types of supported relationships that can link system and custom entities
- Identify the types of relationships that are not supported by the system
- Discover how 1:N relationship rules control how certain actions taken on a record affect related records
- Create entity relationships and configure relationship behavior
- Discuss how attribute mapping facilitates data entry when creating new records that are related to a parent record

### **Module 9: Renaming Entities and Translating Customizations**

This module examines the final two elements related to customizing entities: renaming a customizable entity, and in a multilingual deployment, translating customized labels into the required languages.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Renaming a Customizable Entity</li><li>▪ Translate Customized Labels</li></ul>
<b>Lab 9.1: Renaming a Customizable Entity</b>
<ul style="list-style-type: none"><li>▪ Back up the Case configuration</li><li>▪ Rename the Case Entity</li><li>▪ Change the view names</li><li>▪ Change the Case form labels</li><li>▪ Change the Attribute Display names</li><li>▪ Change the messages</li><li>▪ Publish and Export the changes</li><li>▪ Change the online Help</li></ul>

The goals for completing this module are for students to:

- Examine the steps that need to be performed to rename a customizable entity
- Discover how to translate customized labels in a multilingual deployment

### **Module 10: Maintaining Organizations through Deployment Manager**

This module examines how Microsoft Dynamics CRM supports multiple organizations in one installation. This training also examines the tools that are available in Microsoft Dynamics CRM's Deployment Manager utility.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Creating Multiple Organizations</li><li>▪ Deployment Manager - Microsoft Administrators</li><li>▪ Deployment Manager – Organizations</li><li>▪ Deployment Manager – Servers</li><li>▪ Deployment Manager – Licenses</li></ul>
<b>Lab 10.1: Maintaining Multiple Organizations</b>
<ul style="list-style-type: none"><li>▪ Add a new organization</li><li>▪ Add business units to the new organization</li></ul>

The goals for completing this module are for students to:

- Identify how the multi-tenancy feature enables users to have more than one organization installed on a single Microsoft CRM Server
- Discover how the Deployment Manager's Deployment Administrators tool is used for viewing users with the Administrator license
- Examine how the Deployment Manager's Organizations tool is used for maintaining connectivity between the Microsoft CRM Server(s), the Reporting Server, and the Microsoft CRM database
- Identify how to use the Deployment Manager's Server tool to take Microsoft CRM Servers offline and online
- Use the Deployment Manager's License tool to maintain server and client licenses

### **Module 11: Introduction to Advanced Customizations**

This module introduces a variety of advanced customization features that are available with Microsoft Dynamics CRM. These topics are intended for a developer audience, but the topics are introduced to expose the participant to available advanced customization functionality.

<b>Lessons</b>
<ul style="list-style-type: none"><li>▪ Introduction to Workflow</li><li>▪ Introduction to Application Event Programming</li><li>▪ Common Uses for Event Programming</li><li>▪ Using Form Events</li><li>▪ Using Files Events</li><li>▪ Configuring Event Detail Properties</li><li>▪ Introduction to IFrames</li><li>▪ Introduction to URL Addressable Forms</li><li>▪ Introduction to Creating Custom Menus, Buttons, and Navigation Items</li><li>▪ Introduction to ISV.config Integration Points</li><li>▪ Introduction to SiteMap</li><li>▪ SiteMap structures</li><li>▪ Introduction to SDK Capabilities</li><li>▪ ISV solutions</li></ul>
<b>No Labs are included; however, instructor demonstrations are performed for each of these topics and students can perform the demonstrations along with the instructor.</b>

The goals for completing this module are for students to:

- Introduce Workflow features, including Workflow events, actions, and conditions
- Identify the form and field events that can be customized with client-side code
- Examine some of the common uses of client-side code within Microsoft Dynamics CRM
- Explore the advantages of using Form events and which form Events can include client-side code
- Explore the advantages of using Field events and which field Events can include client-side code
- Examine where the JScript code for Form and Field events is entered
- Identify the issues to be aware of when adding client-side code
- Examine how IFrames provide the ability to display the web page from another application within a Microsoft Dynamics CRM form

- Examine how to link Microsoft Dynamics CRM into other applications and reports using URL Addressable forms
- Explore how to add custom menus, side tabs, and buttons to the Microsoft Dynamics CRM application.
- Identify where to add custom buttons, menus, and side tabs in Microsoft Dynamics CRM
- Examine how to customize the Navigation Pane by modifying the SiteMap
- Identify the structure of the SiteMap to customize the correct areas per business requirements
- Introduce the Software Development Kit (SDK) that is used by developers when integrating Microsoft Dynamics CRM with other applications
- Identify where an organization can locate ISV solutions