

## MOC 55205 A: Mastering Microsoft Project 2016

### Course Summary

#### Description

This three-day, instructor-led course is intended for individuals who are interested in expanding their knowledge base and technical skills about Microsoft Project. The course begins with the basic concepts and leads students through all the functions they'll need to plan and manage a small to medium-size project, including how to level resources and capture both cost and schedule progress.

This course will also help students prepare for Microsoft Project Exam 74-343 Managing Projects with Microsoft Project.

#### Objectives

At the end of this course, students will be able to:

- Understand the discipline of project management as it applies to using Microsoft Project 2016.
- Create a Work Breakdown Structure.
- Identify Task Types & Relationships.
- Define Resources within Project.
- Make Work Package Estimates.
- Create an Initial Schedule.
- Create a Resource Leveled Schedule.
- Create Projects from templates, Excel files.
- Create Global templates.
- Create formulas and graphical indicators.
- The steps to record a macro.
- Format Output and Print Reports.
- Integrate Multiple Projects.
- Set up a Project with a Calendar, Start date, and scheduling method.
- Understand Manually Schedule vs. Auto Schedule.
- Manage multiple projects.
- Be able to create a master project list with shared resources.

#### Topics

- Introduction to Microsoft Project
- A Quick and Easy Overview of Managing with Project
- Setting Up a Project
- Manually Schedule vs. Auto Schedule
- Creating a Work Breakdown Structure
- Identifying Task Relationships
- Defining Resources within Project
- Making Work Package Estimates
- Creating an Initial Schedule
- Create a Resource Leveled Schedule
- Managing the Project
- Formatting Output and Printing Reports
- Managing Multiple Projects
- Advanced Topics
- Summary

#### Audience

This course is intended for both novice and experienced project managers, managers, schedulers, and other project stake holders who need to incorporate the discipline of project management with Microsoft Project 2016.

#### Prerequisites

There are no prerequisites for this course. However, it is helpful to have taken an introductory project management course, such as Versatile's Principles of Project Management.

#### Duration

Three days

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### Course Outline

#### I. Introduction to Microsoft Project

This module provides an overview of how the features of Project relate to the job of the project manager. The module also teaches the student how to access different features by navigating through the ribbon.

- A. Describe how Project relates to the discipline of Project management.
- B. Learn what the new features are in Project 2016.
- C. Navigate to the primary views available using the Ribbon.
- D. Choose Views that display task, resource, or assignment information.
- E. Select table within views to change the information that is available to see and edit.
- F. Relate the features of Project to the 5 steps for building a plan in Project.

#### Lab : Introduction to Mastering Microsoft Project

- Learn how to change views from a table to a chart.
- Learn the different subcommands that are under each command groups.
- Learn what functions are under the format tab.
- Learn how to access the backstage.

#### II. A Quick and Easy Overview of Managing with Project

This module demonstrates the required steps to create and use Microsoft Project 2016 through the life cycle of a project.

- A. Create a new project and prepare it for data entry.
- B. Enter project tasks.
- C. Sequence the tasks.
- D. Define resources.
- E. Estimate Task duration and assign resources.
- F. Baseline the project.
- G. Track project progress.

#### Lab : Creating a Basic Project with a template

- Learn how to create a project plan from a template.
- Learn how to turn off the timeline.
- Learn how to change the project start date.
- Learn how to add holidays to the company calendar.

#### Lab : Creating a Basic Project

- Learn how to add resources and their cost.
- Learn how to switch views.
- Learn how to insert summary tasks.
- Learn how to link tasks and summary tasks.

#### III. Setting Up a Project

This module explains how to create a new project and establish the basic constraints that Microsoft Project 2016 will use for its calculations.

- A. Use multiple methods to create a new project from an Excel file and a SharePoint Tasks list.
- B. Establish one or more calendars to constrain resource availability.
- C. Configure Project to calculate the schedule from the Start Date forward, or from the Finish Date b

#### Lab : Setting Up a Project

- Learn how to add Holidays to the company calendar.
- Learn how to make a custom calendar.
- Learn how to set the Project Start date.
- Learn how to set constraints.

#### IV. Manually Schedule vs. Auto Schedule

This module explains how to how to manually schedule project tasks and how to leverage the auto schedule feature.

- A. Students practice switching tasks between Manually Schedule and Auto Schedule modes. By switching

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### Course Outline (cont'd)

#### Lab : Explore Task Modes

- Describe which project functions are turned off for tasks using Manually Schedule mode.
- Change the task mode from Manually Schedule to Auto Schedule and back.
- Identify tasks that are in Manually Schedule mode by the task mode column and shape on the Gantt c
- Describe situations that are particularly appropriate for using Manually Schedule.
- Describe the limitations that a user must be aware of when using Manually Schedule mode.

#### V. Creating a Work Breakdown Structure

This module explains how to create a useful work breakdown structure and enter it into Microsoft Project.

- A. Build and use summary and subordinate tasks.
- B. Understand and use milestones.
- C. Develop WBS Outlines.
- D. Assign completion criteria.
- E. Evaluate the WBS.
- F. Understand and use WBS templates.

#### Lab : Manipulate a WBS

- Learn how to create and manipulate WBS.
- Learn how to utilize an Outline.
- Learn how to create notes within tasks
- Learn how to utilize an Outline.

#### Lab : Supporting the Project Plan

- Learn how to hyperlink project artifacts to your project plan.
- Learn how to create reoccurring tasks.

#### VI. Identifying Task Relationships

This module explains the rules for establishing dependency links between tasks and how to use Project to display these dependencies.

- A. Understand the different types of task relationships.
- B. Understand and use various methods to create relationships.

- C. Determine and display task sequence.
- D. Understand and use lag, lead, and delay.
- E. Understand the new feature of Task Paths.

#### Lab : Display the sequence

- Identify the different ways to create dependent relationships
- Format a Network diagram.
- Modifying dependency lines.
- Modifying items to be shown on the critical path.

#### VII. Defining Resources within Project

This module explains how to enter resources and specific resource information in Microsoft Project and assign resources to specific tasks.

- A. Define resource types.
- B. Define individual resources that will be used on the project.
- C. Record the cost (s) of using each type of resource.
- D. Record the limit of availability for each type of resource by establishing a resource calendar and d

#### Lab : Resource Calendar and Availability

- Add holidays to a standard calendar.
- Applying different types of calendars to a project and analyzing the impact to the project schedule.
- Applying vacation schedules to the calendar.
- Replace resources based upon the resource's calendar.

#### VIII. Making Work Package Estimates

This module explains how Microsoft Project calculates task duration, task work (effort) and task resources. Students will be able to choose among three task types as they enter task estimates and they will know which task type is appropriate for the type of estimate they are making.

- A. Enter estimates for duration and costs for each task.

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### Course Outline (cont'd)

- B. Distinguish between task types and describe when each is appropriate.
- C. Describe the relationship between work, units, and duration.
- D. Describe the way Effort Driven scheduling is affected by work, units, and duration.
- E. Assign tasks to resources using the Team Planner view.

#### Lab : Work, Duration and Labor

- Analyze the impact of duration, work, and labor.
- Create material resources and assigning cost to the resource.
- Understand how to leverage Project statistics
- Apply a material resource to a task and examine the impact to project costs.

#### IX. Creating an Initial Schedule

This module explains how Project calculates a schedule based on task relationships and task duration. Students will understand the purpose of identifying critical path tasks and will be able to identify schedule float within the project.

- A. Calculate float and identify a project's critical path.
- B. Understand and identify task constraints.
- C. Create milestones.
- D. Use the Task Inspector to troubleshoot the initial schedule.

#### Lab : Calculating an Initial schedule

- Reviewing changes that can have a positive or negative impact on the project plan.

#### X. Create a Resource Leveled Schedule

This module explains how over-allocated resources create unrealistic schedules and shows methods for rescheduling in order to create a realistic schedule based on resource availability.

- A. Adjust a project schedule to account for limited people and other resources.
- B. View the overall cost and schedule of a project.
- C. Identify resources that have been overallocated for a project schedule.
- D. Use multiple ways to adjust tasks and assignments to remove over allocation for any resource.

#### Lab : Resource Leveling

- Evaluate the project's resource plan using the resource views.
- Adjust the schedule manually.
- Adjust the schedule using the leveling feature.

#### XI. Managing the Project

This module explains how to use Microsoft Project to control a project. Students will save their plan to a baseline and see how entering actual task performance data enables them to view differences between planned and actual performance.

- A. Learn how to set a baseline.
- B. Learn how to enter and track project performance data.
- C. Learn how to apply different tracking methods.
- D. Learn how to perform a variance analysis on a project.

#### Lab : The Baseline

- Use Project Statics to see the changes in a project plan.
- Use the variance tables to understand the changes in a project plan.
- Understand the value of baselining.

#### Lab : Baselining & Tracking Performance

- Understand the value of Baselining a project.
- Understand how to Enter Actuals and measuring their impact.

#### Lab : Variance

- Understand how variance is calculated with cost, finish and work.

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### Course Outline (cont'd)

#### **XII. Formatting Output and Printing Reports**

Participants will be able to control project output by creating and using Custom Fields, Sorting, Filtering, and Grouping of the project data.

- A. Print
- B. Views
- C. Formats
- D. Sorting
- E. Filtering
- F. Grouping
- G. Custom Fields
- H. Reporting
- I. Other File Formats

##### **Lab : Use the Grouping Feature**

- Create new fields to group.
- Create new group fields.
- Create new views.

##### **Lab : Create Reports in Project**

- Learn how to leverage Microsoft Project's View Report features.
- Learn how to create a Visual Report.

#### **XIII. Managing Multiple Projects**

This module explains how to view many projects as parts of one very large project in order to gain new views on resource availability and task relationships among projects.

- A. Learn how to use common resources among multiple projects.
- B. Learn how to link tasks between multiple projects.
- C. Learn how to create a consolidated view of multiple projects.

##### **Lab : Identifying Overallocated Resources from a Resource Pool and Consolidated File**

- Learn how to create a master project file.
- Open Resource Pool.
- Learn how to look for over-allocated resources.

#### **XIV. Advanced Topics**

This module explains how to leverage some of the advanced features of Microsoft Project.

- A. Learn how to customize the Ribbon and the Quick Access Toolbar.
- B. Learn how to customize WBS numbering.
- C. Learn the concepts of Formulas and Graphical indicators.
- D. Learn the purpose of the Global template and Organizer.
- E. Learn how to use Task Deadlines.
- F. Learn how to record a Macro.

##### **Lab : Recording a Macro in Project**

- Learn how to create a macro that will automate a process.

#### **XV. Summary**

This module provides an overview of the topics presented in the course and how to prepare for Microsoft Project Exam 74-343 Managing Projects with Microsoft Project.

- A. Learn how to access the Office App Store.