

## **55056-Managing Projects with Microsoft Project 2013**

### **Module 1: Microsoft Project 2013 Overview**

In this module you will learn how Microsoft Project develops from version to version, what products the corporate project management solution (Enterprise Project Management Solution (EPM) from Microsoft consists of, how using Microsoft Project you can automate project management during different phases of the project life cycle.

#### **Lessons**

- History of Microsoft Project
- Product Structure: Versions and Revisions
- Automation of project management, programs and project portfolios
- Project life cycle and the possibility of using Microsoft Project at different phases of the life cycle

### **Module 2: Elements of the interface Microsoft Project 2013**

In this module, you will learn what the interface of Microsoft Project 2013 looks like, what controls are available to the user, how the interface is configured, what are the ways to create a project file, and in what formats you can save the file in Microsoft Project.

#### **Lessons**

- Tape
- File tab
- Ways to create a project file
- File Types in Microsoft Project 2013
- Quick Access Toolbar
- Views panel
- Status bar
- Gantt Chart view: table and graph

### **Lab 1: Save the project file and configure the interface**

- Creating and saving a project file
- Configuring the interface of Microsoft Project

### **Module 3: What is a project?**

In this module, you will learn how the concept of “Project” is defined in the international project management standard PMBOK® Guide, what are the main limitations of the project and how they influence the type of project planning, in which dialog boxes the initial settings of the project are set.

## **Lessons**

- Project definition
- The main limitations of the project
- Time-oriented and Quality-oriented projects
- Initial project settings:
- Project Information
- Change in working hours
- Project parameters

### **Lab 1: Initial Project Settings**

- Working with the Project Information dialog box
- Working with the Modify Working Time dialog box
- Work with the Options dialog box

## **Module 4: Project Content Management**

In this module, you will learn how to plan the hierarchical composition of work on a project, how to change the Structural Work Breakdown Code (RDD), how to add milestones of a project.

## **Lessons**

- Task mode: automatic and manual scheduling
- Add, edit, delete tasks
- Structural Decomposition of Work (SDR):
- Displaying the task number in the structure
- Change code SDR
- Filter by structure levels
- Displaying the total project task
- Milestones of the project
- Creating repetitive tasks

### **Lab 1:: Planning Project Content**

- Enter the scope of work on the project
- Creating project milestones
- Adding repetitive tasks

## **Module 5: Sequencing**

In this module, you will learn how the chronological sequence of project tasks is determined, what types of relationships between tasks are supported in the Microsoft Project, how advance and delay are applied.

### **Lessons**

- Types of task dependencies
- Add, edit, remove dependencies
- Apply Leads and Delays
- Task path: analysis of the logical structure of the project
- Observe the connections of manually scheduled tasks.

### **Lab 1: Creating connections between tasks**

- Installing dependencies between jobs
- Precedence diagram analysis

## **Module 6: Estimated Transaction Time**

In this module, you will learn which methods for estimating the duration of operations are used to manage the project timeframe, in which units of measurement the duration of tasks in the Microsoft Project is set.

### **Lessons**

- Methods for estimating the duration of operations
- Task duration input units
- Duration of tasks scheduled manually

### **Lab 1: Calculate project duration**

- Setting task durations
- Estimation of project duration

## **Module 7: Project Management on a Critical Path**

In this module, you will learn how, when planning projects, the critical path method is used, which schedule compression methods are used to optimize project deadlines.

### **Lessons**

- Project Network Planning Method
- Forward and backward pass through the network
- Calculation of early and late dates of operations
- Free and general time reserve of tasks
- Critical path of the project

- Subcritical tasks
- Calculation of the critical path for each independent network of tasks
- Project timing optimization methods
- Principles of project time reservation

#### **Lab 1: Project Management on a Critical Path**

- Display in the Microsoft Project interface of the critical project path
- Optimization of the project timeline
- Project reserve

#### **Module 8: I Additional Scheduling Options in Microsoft Project**

In this module, you will learn how additional task parameters affect task dates and the critical path of a project.

##### **Lessons**

- Task calendar
- Inactive tasks
- Deadline task
- Interrupt task
- Task Restrictions

#### **Lab 1: Additional Project Timing Management**

- Apply task calendar
- Use inactive tasks
- Deadline setting

#### **Module 9: Resource Assessment Operations**

In this module, you will learn how to create a list of necessary resources for a project, what types of resources are supported in Microsoft Project 2013.

##### **Lessons**

- Resource List View
- Types of resources: labor, material, costs
- Actual and universal resources
- Group resources

## **Module 10: Setting Resource Properties**

In this module, you will learn how to configure the properties of all types of resources, how to set up several tariff rates for a labor or material resource, how to set up a work schedule for a labor resource, how to set the units of measurement for a material.

### **Lessons**

- Workforce properties: availability, calendar, cost rate tables
- Properties of material resources: units of measure for materials, tables of cost rates
- Costs: expenditure items for the project

### **Lab 1: Creating a project resource model**

- Creating a list of resources
- Setting Resource Properties

## **Module 11: Assigning Resources to Tasks**

In this module, you will learn how to assign the necessary resources to the tasks, indicate or calculate the amount of work and units of workforce loading, how to indicate the consumption rate of a material resource and costs by expense items.

### **Lessons**

- Calculation of labor costs, load units or duration of tasks in the appointment of labor resources
- Constant or variable rate of consumption of material resources
- Expenses for costly resources

### **Lab 1: Assigning resources to tasks**

- Assigning workforce to tasks
- Assigning material resources to tasks
- Assigning costly resources to tasks

## **Module 12: Project Cost Estimate**

In this module, you will learn how the cost of the project is estimated and displayed, how reserves are created by cost, how the project is budgeted.

### **Lessons**

- Total project costs in terms of tasks, resources, assignments
- Project time costs
- Resource utilization and fixed costs
- Principles of project cost reservation
- Project budgeting

### **Lab 1: Budgeting Project**

- Creating a budget resource assignment for a total project task
- Setting budget value by project period

### **Lab 2: No**

- Not

### **Module 13: Calendar Priorities**

In this module, you will learn how priorities of project calendars, tasks and workforce are determined, how calendar conflicts are resolved.

#### **Lessons**

- Calendars of the project, tasks, labor resources
- Ignoring resource calendars when planning
- Calendar conflicts

### **Lab 1: No**

- Not

### **Module 14: Planning Formula**

In this module, you will learn how labor costs, labor load units and task duration are related, and what properties of the task govern the change in these parameters.

#### **Lessons**

- Work, load units and task duration
- Property Type Task
- Property Fixed scope of work
- Using smart tags

### **Lab 1: No**

- Not

### **Module 15: Allocating Resource Load**

In this module, you will learn how workforce availability is estimated and displayed, how resource load balancing is performed, how automatic alignment is configured and interpreted, how a visual resource optimizer is used, and what methods of balancing resource load are available to the user.

#### **Lessons**

- Estimation of resource availability
- Automatic resource load balancing:
- Setting up automatic load balancing

- Use automatic alignment and interpret results
- Visual Resource Optimizer
- Manual load balancing:
  - Equalizing delay
  - Increase resource availability
  - Replacing a resource
  - Changing the load and labor costs

#### **Lab 1: Resource Alignment Load**

- Manually Resolving Excess Availability
- Using the Visual Resource Optimizer
- Resource load balancing automatically

#### **Module 16: Monitoring Project Progress**

In this module, you will learn how to set a basic project plan, how you can enter actual project data, how to update a project on the date of the report.

##### **Lessons**

- Setting the project baseline
- Entering Task-Level Actual Data
- Input of the actual data at the level of appointments
- Project update:
  - Update completed work
  - Reschedule Incomplete Work

#### **Lab 1: Track Project Progress**

- Setting the Baseline Project Plan
- Input of actual data
- Project update

#### **Module 17: Analyzing and Forecasting Project Progress**

In this module, you will learn how to present analytical information on the progress of a project using Microsoft Project 2013, how the indicators of the plan-actual analysis and the amount used are interpreted, and how the project reports are generated.

##### **Lessons**

- Variance analysis
- The analysis by the method of mastered volume

- Project Reports

### **Lab 1: Capacity Analysis**

- Analysis of the project in terms of utilized volume
- Preparation of reports

### **Module 18: Managing Project Changes**

In this module, you will learn how using Microsoft Project to correctly make changes in the scope of work or in the composition of resources in the project schedule, how to set the next version of the base plan if it is reapproved.

#### **Lessons**

- Changing the scope of work
- Change in the composition of resources
- Reassessment of the Baseline
- Rescheduling the rest of the schedule
- The use of reserves in time and cost

### **Lab 1: Project Change Management**

- Changes in the scope of work
- Changes in the composition of resources
- Reassessment of the Baseline

### **Module 19: Customizing Microsoft Project 2013**

In this module, you will learn how visual presentation settings are performed, how tasks are documented, how a project timeline is configured, how custom elements are created: custom fields, graphical indicators, tables, groupings, filters, views.

#### **Lessons**

- General information about creating macros and add-ins in Microsoft Project 2013
- Visual Settings: Formatting Views
- Adding to the task hyperlink document
- Timeline Setup
- The organizer is the ordering of the global template:
- Creating custom fields and graphical indicators
- Setting up tables, groups, filters
- Creating views



### **Lab 1: Customize Microsoft Project 2013**

- Documenting work
- Customize Custom View

### **Module 20: Project Collaboration**

In this module, you will learn how project templates are created, how project versions are compared, how print views are configured, and which multi-project management methods are used in the local edition of Microsoft Project.

#### **Lessons**

- Creating and saving project templates
- Integration of Microsoft Project with other applications, data export and import
- Comparing project versions
- Printing Design Data
- Multiprojects:
- Project consolidation
- Resource pool
- Microsoft Project 2013: communication between project participants, integration with social networks and cloud services