

Excel advanced

Lecturer: Massimo Ballerini

Language

English

Course description and objectives

The course is aimed to analyze the main advanced features of Excel, including complex functions, what-if analysis, pivot tables and macros, with specific examples and exercises that can be immediately applied to one's study and work. The goal is to improve the advanced skills in basic Excel users, in order to give them the tools for an effective and qualified approach to both academic and professional activities.

Attention: The contents of this course largely follow what is covered in the curricular courses of Computer Science, Computer Skills and Computer Skills for Economics.

The course is also valuable as preparation for the ECDL Advanced Spreadsheet certification.

At the end of the course participants will be able to:

- Effectively organize data into a spreadsheet
- Analyze data using complex functions and tools
- Manage external data into Excel
- Manage Excel charts in an advanced manner
- Apply advanced formatting to the worksheet

Audience

The course is open to all Bocconi students. In particular, it is targeted at:

- Undergraduate students who have successfully passed Computer science, Computer skills or Computer skills for economics exam, and who aim to review and improve their skills and get the ECDL Advanced Spreadsheet (Excel) certification
- Undergraduate students who have passed with some difficulty Computer science, Computer skills or Computer skills for economics exam, and who want to become more nimble using Excel's advanced features

- Graduate students who have not attended their undergraduate studies at Bocconi and thus have not taken Computer science, Computer skills or Computer skills for economics exam
- All those who need to manage and process data in a professional manner for their academic or professional activities

Prerequisites

To have achieved the ECDL standard certification (ECDL Core or New ECDL) or have equivalent skills. In particular, it is required to know:

- How to enter data in Excel
- How to manage worksheets
- How to build simple functions
- How to create charts
- How to format data

Duration

20 hours

Teaching mode

It will be possible to join the course in presence and/or in distance, by connecting remotely and following the streaming of the lesson held in the classroom.

Calendar

Lecture	Date	Time	Room	Lesson in person with groups by student ID number
1	Wed 11/11/2020	18.40 - 20.10	Info AS04	Odd
2	Sat 14/11/2020	09.30 - 11.00	Info AS04	Odd
3	Sat 14/11/2020	11.20 - 12.50	Info AS04	Odd
4	Wed 18/11/2020	18.40 - 20.10	Info AS04	Even
5	Sat 21/11/2020	09.30 - 11.00	Info AS04	Even
6	Sat 21/11/2020	11.20 - 12.50	Info AS04	Even
7	Wed 25/11/2020	18.40 - 20.10	Info AS04	Odd
8	Sat 28/11/2020	09.30 - 11.00	Info AS04	Odd
9	Sat 28/11/2020	11.20 - 12.50	Info AS04	Odd
10	Wed 02/12/2020	18.40 - 20.10	Info AS04	Even

Syllabus of the course

Lecture	Topics	Book and Syllabus references
1	Introducing data management with Excel <ul style="list-style-type: none"> - Revision of some basic elements of Excel - Basic formulas and functions (percentage calculation, SUM, AVERAGE, MIN, MAX) - Correct use of absolute and relative references - Basic conditional formatting 	Book Sections: 1, 2, 7, 14 - <i>Syllabus 3.0</i> <i>categories: 1 - 2</i>
Exercises		

Lecture	Topics	Book and Syllabus references
2	Conditional data processing <ul style="list-style-type: none"> - Logical values and tests - IF function - Managing multiple conditions - Logic functions (AND, OR) and nested IFs - Advanced conditional formatting with formulas 	Book Sections: 2, 7, 14 - <i>Syllabus 3.0</i> <i>categories: 1 - 2</i>
<i>Exercises</i>		
3	Organizing data <ul style="list-style-type: none"> - Charts creation and formatting - Advanced charts (mixed on two axis) - Worksheets management - Format as Table - Sorting and filtering tools - Subtotal 	Book Sections: 2, 8, 11, 12, 15 - <i>Syllabus 3.0</i> <i>categories: 1 - 3 - 4</i>
<i>Exercises</i>		
4	Advanced functions <ul style="list-style-type: none"> - Mathematical functions - Statistical functions - Database functions - Working with references on different worksheets - Managing custom lists 	Book Sections: 7, 12, 14 - <i>Syllabus 3.0</i> <i>categories: 2 - 4</i>
<i>Exercises</i>		
5	Analyzing data and customizing formats <ul style="list-style-type: none"> - Analyze data with Pivot tables - Managing Pivot tables options and calculations - Date and time format and related functions - Create custom number formats 	Book Sections: 7, 13, 14 - <i>Syllabus 3.0</i> <i>categories: 2 - 4</i>
<i>Exercises</i>		

Lecture	Topics	Book and Syllabus references
6	Creating simple tools with Excel <ul style="list-style-type: none"> - Text functions - Lookup and reference functions - Data validation - Security and protection options Exercises	Book Sections: 3, 14, 18 - <i>Syllabus 3.0</i> <i>categories: 2 - 5 - 7</i>
7	What-if analysis <ul style="list-style-type: none"> - Financial functions - Create and manage Scenarios and Summaries - Define and use cells names - Other What-if analysis tools Exercises	Book Sections: 5, 9, 14, 16 - <i>Syllabus 3.0</i> <i>categories: 2 - 4 - 6</i>
8	Data gathering and sharing <ul style="list-style-type: none"> - Managing external data - Advanced copy and paste options - Auditing tools - Reviewing tools - Creating and managing Templates Exercises	Book Sections: 4, 6, 10, 18, 19 - <i>Syllabus 3.0</i> <i>categories: 5 - 6 - 7</i>
9	Automations in Excel <ul style="list-style-type: none"> - Introducing Excel macros - Macro recording - VBA basic editing of recorded macros - Macro triggering - Ribbon customization Exercises	Book Sections: 1, 2, 17 - <i>Syllabus 3.0</i> <i>categories: 6</i>
10	General review and final test	

Suggested bibliography

ECDL Advanced Spreadsheet Software (BCS ITQ L3) - Excel 2016 version (ISBN: 9780857411990), CiA Training Ltd, 2016

Excel Workbook, second edition, edited by Alberto Clerici, Egea, 2017

Software

Microsoft Office Excel 2019/365

Available seats

This activity is limited to **60** participants. Registrations cannot be carried out once this number has been reached or after closing of the registration period.

Spreadsheet paths

This course can be intended as part of a wider path:

