# Intermediate knowledge of Spreadsheets

**Academic Year: ( 2021 / 2022 )** **Review date: 31-05-2021**

**Department assigned to the subject: Transversal matters**

**Coordinating teacher: MORENO MARCOS, PEDRO MANUEL**

**Type: Basic Core ECTS Credits : 3.0**

**Year : 2 Semester : 2**

**Branch of knowledge: Social Sciences and Law**

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Experience in the use of computers will be valuable.

## OBJECTIVES

-Be able to create books and spreadsheets organizing data and the management of data cells.

-Acquire the skills to create series and insert comments including the spreadsheet styling and formatting.

-Be able to manage spreadsheets: copy and paste operations, insert, remove cells, rows and columns.

-Use different types of formula, absolute and relative references and management of operations and operators.

-Be able to link different spreadsheets.

-Understand the structure of a formula, sorting and filtering data.

-Understand the use of tables: formatting, management and sorting and filtering of data.

-Understand the creation and management of charts: titles, captions, edges, images, etc.

## DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to the use of spreadsheets.
1.1. Foundations and concepts.
1.2. Spreadsheet as a concept.
1.3. Use of spreadsheets.
1.4. Online spreadsheets and collaborative work.

2. Structure of a spreadsheet: book, sheets and cells.
2.1. Foundations and concepts.
2.2. Basic functionalities to edit and manage books.
2.3. Basic functionalities to edit and manage sheets. Importing data and data sources.
2.4. Functionalities to edit and manage books: copy and paste.
2.5. Add, remove, show and hide rows and columns.
2.6. Add and manage comments.
2.7. Printing a spreadsheet: printing area, configuration and preview.

3. Working with cells and sheets.
3.1. Datatypes.
3.2. Formatting cells (styles). Paste special.
3.3. Autofill options. Design and use of macros. Series.

4. Formula and references.
4.1. Basic operations: arithmetic, string and comparison operators.
4.2. Building references: types and creation between books and sheets.
4.3. Linking spreadsheets.
4.4. Linking books.
4.5. Debugging formula

4.6. Functions and formula within the Journalism area.
4.7 Understanding formula and functions.

5. Tables and Pivot tables.
5.1. Creating a pivot table. Definition and fields.
5.2. Operations and management: filtering and sorting data.
5.3. Formatting pivot tables.
5.4. Data forms. Database functions.
5.5. How to create a pivot table. Definition and fields.
5.6 Understanding tables.

6. Data visualization.
6.1. Chart types.
6.2 Selecting the proper chart.
6.3. Data sources.
6.4. Edge customization
6.5. Formatting the chart area: title, caption and colors.
6.6. Inserting images.

7. Spreadsheets as a starting point.
7.1 Document generation.
7.2 Data export.
7.3 Add-ins and third-party tools to visualize and manage data.

- There is a SPOC related with all these concepts.

## LEARNING ACTIVITIES AND METHODOLOGY

Requirements:
Students must bring their laptops to the face-to-face sessions.
The reference version will be Excel 365 for Windows, Spanish or English language version, depending on the language of the enrolment group. Moreover, students will have access to Excel 365 for Windows in the Virtual Classroom.

LEARNING ACTIVITIES
Theoretical Lectures:
- Show foundations and main concepts

Practical Lectures:
- Exercise resolution
- General tutoring

Individual Work:
- SPOC
- Exercises
- Contribution to team activities
- Study and preparation of final test

Team Work:
- Exercises
- Development of a study case in group

The group study case will consist of the development of a complete case from data loading, analysis, and graph generation with objective of use and interpretation.

## ASSESSMENT SYSTEM

CONTINUOUS EVALUATION (100%)

The evaluation will be carried out on the basis of:
- Test of the SPOC (6): 10% (2% each, except the first and last, with a value of 1%)
- End-of-subject quizzes (3): 15% (5% each)
- Study case in group: 35 %
- Final test: 40%

A minimum grade of 5.0 both in the study case in group and in the final test is required to pass the course.

The student's participation may also be considered in the final mark for the course.

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|---|---|
| **% end-of-term-examination:** | 0 |
| **% of continuous assessment (assigments, laboratory, practicals…):** | 100 |

## BASIC BIBLIOGRAPHY


- Claudia Valdes-Miranda Cros Excel 2019: manual imprescindible, Anaya, 2019
- John Walkenbach Excel 2016 Bible, Willey, 2016
- Sergio Propergol Excel 2019. Manual Avanzado, Anaya, 2019
- Sonia Llena Hurtado Aprender Excel 365/2019 con 100 ejercicios prácticos, Marcombo, 2019


## ADDITIONAL BIBLIOGRAPHY


- Cole Nussbaumer Knaflic  Storytelling with Data: A Data Visualization Guide for Business Professionals, Willey, 2015
- Francisco Charte Excel 2016 (Manuales Avanzados), Anaya, 2016
- Jordan Goldmeier Dashboards for Excel, Apress, 2015
- Mike Smart  Learn Excel 2016 Expert Skills with The Smart Method: Courseware Tutorial teaching Advanced Techniques , Mike Smart , 2016


## BASIC ELECTRONIC RESOURCES


- Felienne Hermans . Análisis de datos: Diseño y Visualización de Tableros: http://www.edx.org/course/analisis-de-datos-diseno-y-visualizacion-de-tabler
- Greg Harvey . Excel for dummies: https://www.oreilly.com/library/view/excel-2013-for/9781118550007/?ar
- Michael Alexander, Richard Kusleika, John Walkenbach. . Excel 2019 Bible: https://www.oreilly.com/library/view/excel-2019-bible/9781119514787/?ar
- Sandip Saha Joy and Steve Ryan . Analyzing and Visualizing Data with Excel. Microsoft: http://www.edx.org/course/analyzing-data-with-excel