

VBk Practical Mathematics and Microsoft Excel Course

Introduction



AF, CNB, MZ, APM

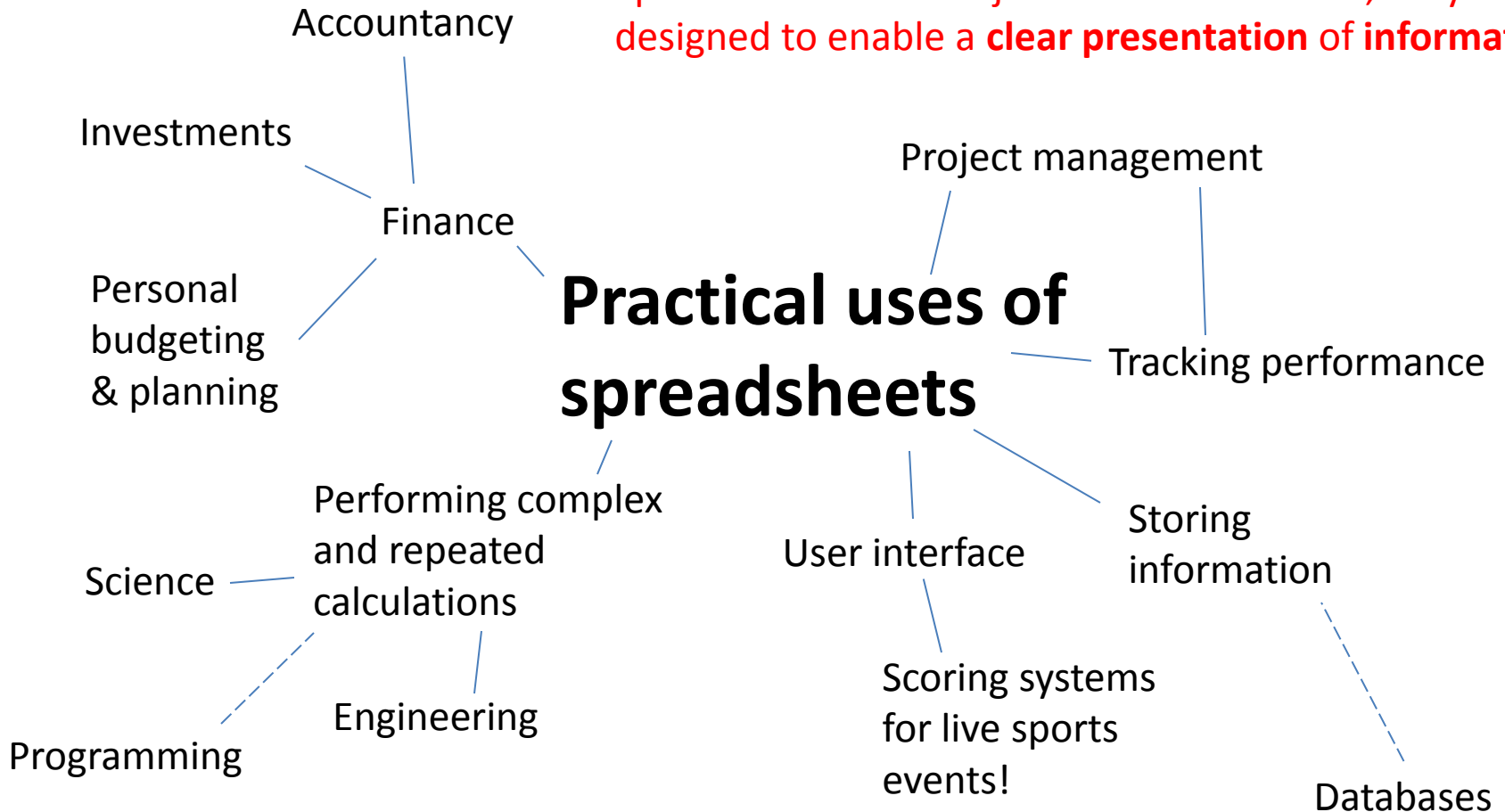
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WINCHESTER
COLLEGE

Scope

- Two weeks of lessons in F1, Flint Court
- Introduction to the practical usage of **spreadsheets** (using Microsoft Excel)

Spreadsheets are not just about calculation, they are designed to enable a **clear presentation of information**



Basically at some point in your professional life you will need to use Excel.

So let's get good at it now.



Projects

Open ended tasks

We'll provide 'how to sheets' but **you** have to figure out what your spreadsheet needs to do, then use the resources to learn the required skills. We'll also help you if you are nice to us.

| Project | Skills |
|---------------------------|--|
| Skills tracker | Cell formatting, presentation, how to capture and keep track of information |
| Financial review & budget | Analysis of financial data. Use of filters , pivot tables and menus . Auto-sums , pie-charts , multiple worksheets |
| Football statistics | Automatic statistical calculations. Pose and test a hypothesis. |
| Loans and savings | Use of cell formulae , replication .. Automated iterative computations . |



Examples

Excel can be used in many situations. Several case studies will be available for you to study. Perhaps you could devise your own project based on them?

| Example | Key features |
|----------------------------------|---|
| Electricity & Gas meter readings | Record keeping. Automatic graph plotting. Line of best fit to determine usage rate. Use of time and date information. |
| Rendall Pot scoring spreadsheet | Presentation of data. Design for high pressure, live data input. Automatic calculation features. Sorting to work out positions. Use of VLOOKUP to determine scores based on the event and position. |



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| Example | Key features |
|--------------------------------------|--|
| Multiplication table | Cell formatting. Formulae. Use of \$ to reference specific cells. Replication otherwise. |
| Table of powers (squares, cubes etc) | |
| Exoplanets & Kepler's Third Law | Data analysis, graph plotting, error bars |
| Resonance in and RCL circuit | Mathematical modelling, cell referencing, graph plotting |

