

Workshop on Excel43 by Tallinn University of Technology

www.Excel43.com/Videocast (Excel-For-Free) – A Videocast Business School Freshman Applied Spreadsheet Course

Usually introductory courses in business informatics have different focal points (e.g. such as introduction to business and technology), ours is in „developing the spreadsheet way of thinking“. Although, one might state, that this emphasis is only well justified in a tech school, our experience shows, that teaching such kind of computational thinking is explicitly practical.

Excel43 has two focal points – working with tables and modeling. The two focal points fall under a general overarching goal – application development with spreadsheets. Our student will be off to a strong start in a journey towards becoming a power user of Excel, one who develops his own applications.

While working with tables we import these from the internet, link multiple tables in order to form an application, work with tables that progress vertically or horizontally in a dynamic manner, work with many tables in parallel and, finally, analyze tables by creating summaries and queries.

Another focal point is modeling – as this forms a set of hard core skills for working with spreadsheets. We feel that as students hone their modeling skills, they come best accustomed to “the spreadsheet way of thinking” – thus this “core” forms the nucleus of our course.

Our course is put forth in a context of a set of business problems. These get students accustomed to the real world problems, they will have to solve. While teaching, there is always a compromise that has to be achieved – regarding how technically the given function is explained, and how specific is the business application, in which it is used. When we compare our approach to other Excel courses that are out there, we feel that ours has the proper amount of context behind each function – thus, to bring one example, we will introduce distribution function calculation with Frequency by the example of Benford distribution and analysis of economic fraud.

Demarcations: being a standard university course – with a midterm and final homework – sets some size limitations, though. Operations research Solver optimization will not be considered here – this is a part of respective course. Data mining is left out – Microsoft SQL Server Data Mining Add-In is also taught separately. Statistics and Finance functions are touched only briefly as these are also parts of respective courses in a business school. Visual Basic for Applications programming in Excel also forms a material for a separate course in a business school.

For a gymnasium graduate, Excel43 has no prerequisites – as all business topics, everything related to math (e.g. including percentage calculation) and to informatics, are explained from scratch. As by the end, the student will learn a number of advanced topics, here is a list of top 10 business problems featured in the course:

- Benford distribution and economic fraud
- Social networks
- A simulated stock market
- Economic-ordering-quantity
- Crashing a project schedule
- A network of roads between cities
- Break-even point
- MNC transfer prices
- Progressive income tax
- Decreasing marginal utility

Who would ideally be the participant?

Excel43 is a course on MS Excel, with the primary audience amongst business school/economics freshman students, who are recent high school graduates.

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