Data Management Tools

Academic Year: **2013/2014**   *Semester: 2*

Instructor(s): Carlos Rondão

Course Description:

To became a more effective business and financial manager there are certain spreadsheet modelling skills and database knowledge that must be mastered.

This course will focus on advanced spreadsheet features and modeling with Excel, database development and data analysis with MS Access.

The course will use a "learn by doing" modular approach with real life business examples.

Note: for this course students must have an intermediary knowledge of Excel and VBA

Course Content:

MS Excel

Advanced functions and formula, Advanced Conditional Formation and Validation, Goal Seek, Solver, Scenarios, Tables (a Monte Carlo simulation example), Pivot Tables, Macros, VBA, User Functions, Excel fundamental objects, Events, User Forms

MS Access

Data Modeling, The Entity Relationship Model, Entities, Attributes and Keys, Relationships, Entity Relationship Diagrams (ERD), Database organization, The Relational Model, Components of the Relational Model, Normalization, Implementation in MS Access, Creation of databases, tables, Queries and forms, The SQL language

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Course Objectives:

At the end of the course, students should be able to:

- Use advanced conditional formatting and data validation
- Use advanced functions and formula including array functions
- Master Goal Seek, Solver, Tables, Scenarios and Pivot Tables
- Create and Edit Macros
- Create Models that are easy to navigate and use them to assist your decision making process
- Using VBA to create user functions and automate processes
- Create UserForms
- Understand the database relational model

Create databases, queries and forms

Grading:

The final course grade will be calculated using the following weights:

Computer Excel exam: 60%

Group database assignment: 40%

Bibliography:
Online Excel files with tutorials and exercises at:
http://158.162.0.15/dmt
Carlos Rondão – online database topics
David M. Kroenke – Database Processing Fundamentals, Design & Implementation. Prentice Hall International Editions
Dave Ensor, Ian Stevenson 1997 – ORACLE Design. O'Reilly

http://www.oreilly.com/catalog/oracledes/

Biography:
Carlos Rondão teaches Advanced Excel in Master Programs and Computer Science and Technology Information Systems in the Undergraduate Degree in Management and Economics. He also works as a consultant in those areas. His areas of interest focus on Excel and advanced Excel programming using VBA, data warehousing and business intelligence systems

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