



## Spreadsheet Analytics

James R. Evans  
Operations, Business Analytics, and  
Information Systems  
University of Cincinnati




## Undergraduate Business Analytics Minor

- BANA-2081 Business Analytics I (statistics and data analysis)
- BANA-2082 Business Analytics II (optimization/simulation)
- BANA-4080 Data Mining and Analysis
- **BANA-4085 Spreadsheet Analytics**
- Choose two from the following:
  - BANA-4090 Forecasting and Risk Analysis
  - BANA-6095 Case Studies in Business Analytics
  - FIN-4041 Financial Modeling
  - MKTG-3080 Marketing Research

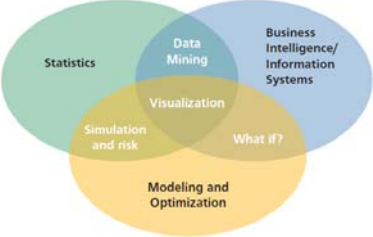



## BANA 4080: Spreadsheet Analytics

- Second year; still “**U**nder **C**onstruction”!
- Intermediate to advanced Excel concepts with a focus on applications and analytics topics (visualization, optimization, simulation).
- Hands-on (laptops required for all courses in the College of Business)
- Students have varied backgrounds and knowledge of Excel and analytics

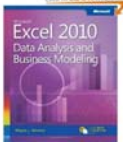
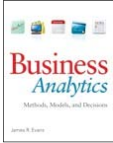



## Analytics Perspective


## Textbooks

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- Custom published version of selected chapters from Evans, *Business Analytics, Methods, Models and Decisions*, Prentice-Hall 2013.


## Software

- Excel for Windows
- *Analytic Solver Platform* (Frontline Systems)




### Topics

- Excel Basics Review
- Range Names, Circular References, Paste Special, Auditing Tool
- Excel Functions: IF, COUNT-type, Something-IF
- Data Visualization, Conditional Formatting, Sparklines
- Dashboard workshop
- Introduction to Excel Macros
- Business Intelligence Tools: Sorting, Tables, Filtering PivotTables and Slicers




### Topics (continued)

- Advanced Excel Functions: Text, Date, and Time Functions; LOOKUP, INDEX, MATCH Functions
- Spreadsheet Modeling
- Developing User-Friendly Applications: Validating Data, Excel Controls, Array Formulas
- Data-driven Modeling, Trendlines
- Model Analysis Tools: Data Tables, Goal Seek, Scenario Manager
- More about Macros and VBA
- Guest speaker – emphasizes simplicity, communication




### Topics (continued)

- Review of Optimization Modeling
- Optimization Model Analysis
- Parameter Analysis in Spreadsheet Optimization
- Additional Topics in Spreadsheet Optimization
- Workshop on Optimization Results Visualization
- Statistical Tools: *Analysis Toolpak*
- Probability Modeling
- Monte Carlo Simulation with Excel
- Monte-Carlo Simulation with Risk Solver



### Ask the Audience

- Questions?
- Other topics that might be added?
- New ideas for pedagogy?





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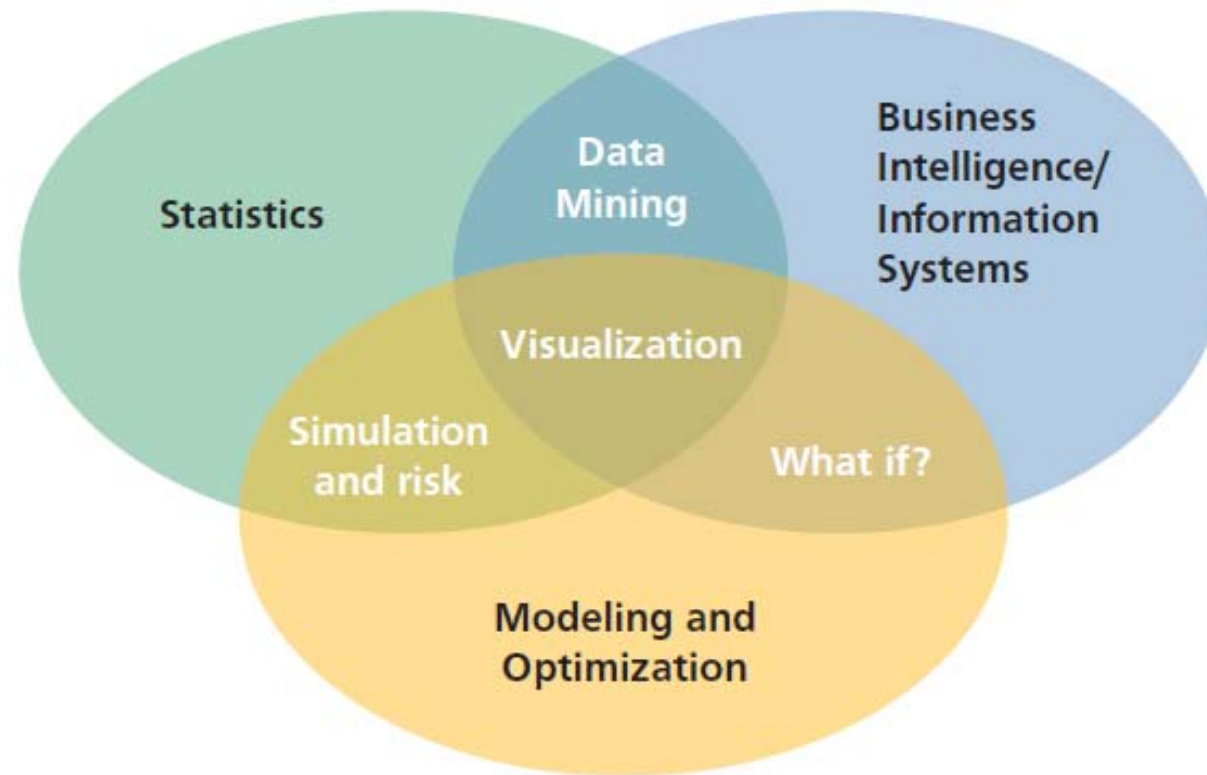
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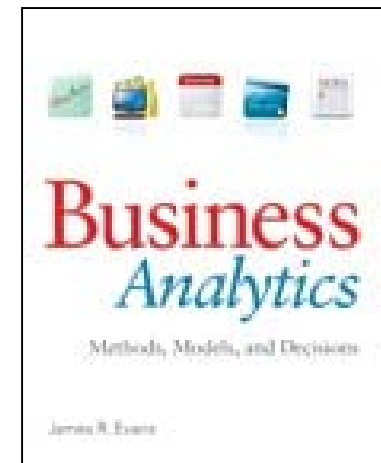
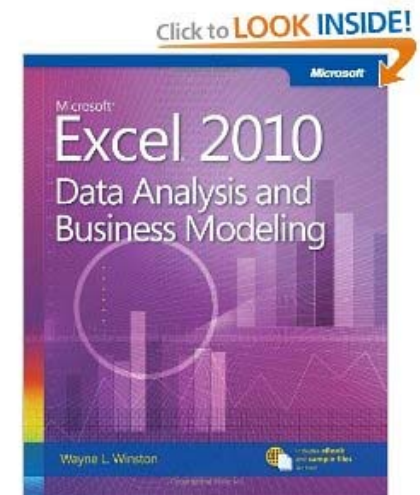
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