

Excel for Business

Module 2, 2024-2025

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Course description

The course is dedicated to practical experience for models' implementations in Excel. Problems collected from real applications used in different industries.

Course requirements, grading, and attendance policies

You need to have a laptop to perform modeling exercise (better English Excel for Windows).

The course grade consists of:

- 1) 10% – commitment on project (topic selection) till November 17 (eod).
- 2) 50% – 5 homework assignments (10% each) after week 1 - week 5.
- 3) 40% – individual project on Excel modeling with presentation in class

Course contents

1 (Oct 30)	Formulas in Excel <ol style="list-style-type: none">1. Shortcuts (excel without mouse), names2. Specification and design of models, useful hints3. Basic Excel functions (string, vlookup, offset, indirect) in Use4. Array formulas (matrix formulas for regression)
2 (Nov 6)	VBA <ol style="list-style-type: none">1. Syntaxes, main objects, user defined functions2. Recorder, debugger3. Events and objects4. Popular macros (scenarios, calculation)5. Macro to collect data from other files
3 (Nov 13)	Data management in Excel <ol style="list-style-type: none">1. Data import (from web, file links)2. Database management (plain lists, relations, storing, editing, navigation)3. Pivots4. Indirect file link. Model version control.
4 (Nov 20)	Data analysis <ol style="list-style-type: none">1. Sensitivity analysis2. Linear programming problem (solver)3. Regressions and data analysis
5 (Nov 27)	Data modeling <ol style="list-style-type: none">1. Random variables, stochastic methods2. Monte-Carlo simulations3. Bootstrap for amateurs

- 6** Applications
(Dec 4)
1. Financial models in Excel developing, application examples
 2. DCF, WACC
 3. Option valuation models, VaR, portfolio valuation
 4. Operation management models
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- 7** Student project presentation (5 minutes per student).
(Dec 11)
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Description of course methodology

Main book – Simon Benninga. Financial modeling (free in internet).
Study material and problem sets will be published on Friday before the lecture.
In classes there will be discussing cases and Q&A session.
Homework should be done till Sunday after the lecture.

Personal projects

Till November 17 students should choose the project topic and comply with lecturer.
Project presentation will be on December 11.

Additional reading

cpearson.com/Excel/Topic.aspx – first blog I read, deep into problem
<http://peltiertech.com/> – on design in Excel
contextures.com/tiptech.html
<http://www.planetaexcel.ru/techniques/2/1790/>
<http://www.excel-vba.ru/chto-umeet-excel/arxivaciyaizvlechenie-iz-arxiva-cherez-vba/>

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.

Office hours

TG messages – any time.
TG and zoom calls – weekdays after 19-20 Moscow + Sundays.