Syllabus
GMT3031 Financial Modelling for Corporate Finance and Corporate Valuation
Prof. Dr. Korbinian Eichner
Summer Semester 2024

Level	Bachelor		
Credits	3 ECTS		
Student Contact Hours	2 SWS		
Workload	90 hours, of which 30 hours lectures and 60 hours for self-study		
Prerequisites	None		
Time	Tuesdays (weekly), 7:00 pm – 8:30 pm. Please see LSF		
Room	W3.2.04. Please see LSF		
Start Date	19 March 2024		
Lecturer	**Name**	Prof. Dr. Korbinian Eichner	
	Office	W2.4.13	
	Virtual Office	MS Teams– prior scheduling necessary	
	Office Hours	Please see LSF	
	Phone	+49 (0)7231 - 28 6585	
	Email	korbinian.eichner@hs-pforzheim.de	

Summary

Excel-based financial modeling is a **core required skill** for professional areas such as corporate development, investment banking (mergers & acquisitions, equity research, equity and debt capital markets), risk management, asset management, treasury, and other financial areas. This is due to the fact that decisions in a business context need to be transparent and supported by profound financial analysis. Therefore, the main objective of the course is to acquire the ability to successfully build and apply basic financial models that can be used in corporate financial decision making processes.

The course focusses on the **application** of corporate finance concepts in Excel and extends and builds on accounting and finance knowledge gained in other undergraduate business administration courses (like "Bilanzierung und Finanzwirtschaft" (Accounting and Finance), or similar, if you are an exchange student).

This course is primarily about "**doing**". Students will spend approximately three quarters of the scheduled time on implementing the tasks outlined below in Excel spreadsheets.

Having completed this course, students should:

- understand the relevance of financial models for various corporate finance purposes.
- know how to build financial models for various corporate finance applications.
- know how to solve basic corporate finance problems in Excel.
- be able translate corporate finance problems efficiently in Excel.

Course prerequisites

- **Financial accounting skills**: Students should be familiar with the content and structure of financial statements (balance sheet, profit and loss statement). Although there will be a short recap session at the beginning of the semester, students should be familiar with reading financial statements.
- **Capital budgeting skills**: Students should be familiar with basic capital budgeting concepts (in particular net present value and internal rate of return).
- **Basic Excel skills**: Students should to be familiar with the main functionalities of Microsoft Excel.

Outline of the course

1. **Introduction to financial modeling**

   - Recap: Accounting and finance basics, principles of corporate finance.

   - Purposes and applications of financial modeling in finance.

2. **Fundamentals of financial modeling**

   - Financial modeling dos and don'ts.

   - Excel formulas for financial applications.

   - Introduction to working with shortcuts in Microsoft Excel.

3. **Financial modeling for general corporate financial topics**

- <u>Financial statement analysis</u> with Microsoft Excel.

    – Key performance indicators.

    – Vertical and horizontal analyses.

- <u>Forecasting and business planning</u> with Microsoft Excel.

    – Building an integrated financial model.

    – Linking balance sheet, profit and loss statement and cash flow statement forecasts.

- <u>Liquidity and cash flow analysis</u> with Microsoft Excel.

- <u>Scenario analyses</u> with Microsoft Excel.

4. **Financial modeling for data visualization**

- <u>Building charts</u> with Microsoft Excel.

5. **If time allows: Financial modeling for specific corporate financial topics**

- <u>Business valuation modeling</u> with Microsoft Excel.

    – Discounted cash flow (DCF).

    – Comparable companies (Trading multiples).

- <u>Merger modeling</u> with Microsoft Excel.

Course intended learning outcomes and their contribution to program intended learning outcomes / program goals

Program intended learning outcomes		Course intended learning outcomes	Assessment method	Assessment method
	After completion of the program the students will be able…	After completion of the course the students will be able…	Project work	Project work
			90%	10%
			Individual	Individual
1	**Expert knowledge**			
1.1	…to demonstrate their distinguished and sound competencies in General Business Administration.	… to apply finance and accounting concepts in Microsoft Excel and to build on previous finance and accounting courses, which addressed finance and accounting topics in a lecture setting. … to have a general overview about the main areas of corporate finance and understanding how Microsoft Excel can help in achieving corporate finance goals. … to be able to breakdown financial performance (financial analysis), to forecast financial performance (business planning), to calculate funding gaps (liquidity planning), to estimate the value of a firm (valuation), to estimate effects of a business combination (M&A) in Microsoft Excel.	X	X
1.4	...to solve business problems based on profound data research skills and by applying quantitative methods.	… to use public capital markets and company data and information sources to support students' solutions of exercises.	X	
1.5	...to demonstrate profound expert knowledge in their field of specialization.	… to discuss and analyze value drivers and their impact on firm performance.	X	X
2	**Digital skills**			
2.1	...to know and understand relevant IT software tools used in business and their features and have a solid understanding of digital technologies.	… to use Microsoft Excel for solving complex financial modeling tasks, by spending approx. 75% of the time in class discussing and working on problems in Microsoft Excel. … to learn how Microsoft Excel can be used efficiently to solve difficult corporate finance problems.	X	X
2.2	...to effectively use and apply information systems to develop solutions in business settings.	… to use Microsoft Excel for solving complex financial modeling tasks, by spending approx. 75% of the time in class discussing and working on problems in Microsoft Excel. … to learn how Microsoft Excel can be used efficiently to solve difficult corporate finance problems.	X	X
3	**Critical thinking and analytical competence**			
3.1	...to implement adequate methods in a competent manner and to apply them to complex problems.	… to focus on execution of financial modeling and understanding where major pitfalls lie, when building financial models in Microsoft Excel. … to identify, evaluate and select the "most appropriate" solutions to corporate finance issues, with which firms are confronted. … to develop a skillset of analytical competence of how to address a qualitative problem in a quantitative manner.	X	X
3.2	...to critically reflect and interpret findings and to develop comprehensive solutions for complex problems.	… to focus on execution of financial modeling and understanding where major pitfalls lie, when building financial models in Microsoft Excel. … to identify, evaluate and select the "most appropriate" solutions to corporate finance issues, with which firms are confronted. … to develop a skillset of analytical competence of how to address a qualitative problem in a quantitative manner.	X	
5	**Communication and collaboration skills**			
5.1	...to express complex issues effectively in writing.	... to form logical chains of reasoning that support their own developed solutions to problems and case studies. … to work on exercises, which require expressing solutions in writing. … to be able to communicate in an understandable way in English. … to work on exercises, which require expressing solutions in writing.	X	
6	**Internationalization**			
6.1	...to understand and explain business challenges in an international context.	… to understand and categorize core financial terms in English (e.g. cash flow, EBIT(DA), working capital).	X	X

6.2	...to articulate themselves in a professional manner in international business.	… to work on exercises, which require expressing solutions in writing in English.	X	

Teaching and learning approach

The course consists of interactive lecture style teaching sessions as well as exercise and case study sessions where students solve exercises by using Microsoft Excel.

Literature and course materials

- *Day, A.:* Mastering Financial Modelling in Microsoft Excel: A Practitioner's Guide to Applied Corporate Finance, Pearson Education.
- *Day, A.:* Mastering Cash Flow and Valuation Modelling, Pearson Education.
- Soubeiga, E.: Mastering Financial Modeling; A Professional's Guide to Building Financial Models in Excel, McGraw-Hill Education.
- *Tjia, J.:* Building Financial Models: The Complete Guide to Designing, Building, and Applying Projection Models, McGraw-Hill Education.

Course and background material incl. solutions to exercises will be either distributed in class or uploaded to Moodle throughout the semester. Students are expected to work through the background material at home to make best use of the time in class.

Assessment

The final grade will be based on

1. an Excel-based exam (90%, take-home exam).

2. an Excel-based mid-term assignment (10%).

Grades will range between 1.0 (very good) and 5.0 (fail), in 0.3 and 0.7 steps.

1.0   Very good, a performance significantly above the average.

2.0   Good, an above average performance.

3.0   Satisfactory, an average performance.

4.0   Adequate, a below average performance with noticeable shortcomings.

5.0   Fail, an unacceptable performance.

Schedule

Tuesdays (weekly), 7:00 pm – 8:30 pm. See LSF for details.

Code of conduct for online teaching

[Link to the code of conduct for online teaching](#)