

**Bachelorstudiengang Volkswirtschaftslehre**

**Universität Mannheim**

**Updates**

**Herbstsemester (HWS) 2024**

10.06.2024

**Update Grading: Financial Economics**

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Responsible teacher of the module: Celine Fei, Ph.D.

Cycle of offer: once per academic year

ECTS credits: 8

Teaching method (hours per week): lecture (3) + exercise (1)

Course language: English

Prerequisites: Microeconomics A + B

Grading: 100% final exam (120 min)

**Grading:**

- **mid-term exam (90 min.): 30%**
- **a small group project practicing one financial calculation using real-world data from the [LSEG Workspace](#): 30%. The project instructions will be delivered four weeks before the final and due two weeks before the final. Students have a maximum of two weeks to finish the project (app. 2-page report). One group needs to consist of three to four students. Students need to find their groupmates on their own.**
- **final exam (90 min.): 40%**

[Schedule](#)

Goals and contents of the module: This course introduces basic tools to understand financial economics. The introduction provides a brief description of basic securities like bonds and stocks, and of the functioning of financial markets. The first part of the courses focuses on how an investor should optimally design a financial portfolio in order to diversify risk and derives one of the most influential asset pricing method: the Capital Asset Pricing Method (CAPM). The second part of the course deals with corporate finance. It presents the Modigliani-Miller theorem and turns to the analysis of the trade-off theory, which assesses the relative benefits of debt and equity. The final part of the course is about corporate financing under asymmetric information, in particular in the presence of moral hazard. Please note that this builds on and hence requires knowledge of game theoretic concepts as covered in Microeconomics B.

Expected competences acquired after completion of the module: Students acquire a broad knowledge about important concepts related to financial economics. Amongst other things, they understand how efficient portfolios are constructed, the pecking order theory, and the determinants of borrowing capacity. They are able to apply these concepts to a multitude of scenarios and can synthesize these considerations to for example discuss the advantages and disadvantages, which affect a company's optimal choice of the debt-to-equity ratio or leverage. They are able to understand the theoretical foundations underpinning the results and can critically discuss the underlying assumptions and resulting implications.

This provides students with the foundation to further their studies in fields related to Financial Economics and allows them to self-study more advanced material or research articles. The concepts discussed in the course have broad applicability in the workspace, be it within the financial sector itself, or in other sectors such as management consulting. More generally, the course teaches and promotes analytical thinking which is essential and helpful regardless of future career choices. The course also teaches students to clearly express their thoughts both to specialist and non-specialist audiences.

Contact: tba

03.06.2024

### **Zusätzliche Veranstaltung: R Programming for Data Science**

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Instructor: Dr. Zahra Kamal

Cycle of offer: every fall semester

ECTS credits: 7

Teaching method (hours per week): lecture (2) + exercise (2)

Course language: English

Prerequisites: Statistik I + II, Grundlagen der Ökonometrie

Grading: two take-home assignments will be distributed during the semester. They will be graded for each individual student and count each for 20% of the final grade. A final programming exam (90 min) will constitute the remaining 60% of the students' final grades.

Expected number of students in class: depends on students' choice (max. 41). Please register via Portal2.

#### [Schedule](#)

Goals and contents of the module: The goal of "R Programming for Data Science" is to help students learn the most important tools in R that will allow doing data science efficiently and reproducibly. The course is designed as a blended learning course including lecture and exercise sessions. It gives an overview of the main steps in a typical cycle of data science projects - importing, tidying, transforming, and visualizing data, as well as communication - using R programming. The modules of the course will hit each of these topics in more depth, consisting of an introduction to R programming, data manipulation (data import, tidying, transformation and wrangling), data visualization, programming and Exploratory Data Analysis (EDA), and communication.

The course will focus specifically on small and medium-size, in-memory datasets and will not cover big data. Nor does it cover modelling data in detail.

Course Structure: The lecture and the tutorial sessions will take place every week. Lecture contents will be practiced in exercise sessions and deepened with interactive discussions. Over the course of the semester, participating students will have to do two small-scale projects basically to practice and gain hands-on experience using R programming tools (using the R and RStudio interfaces, loading and using R packages, creating quick plots, manipulating data structure and values, writing logical tests).

The project assignments should be handed in individually. The assignments will be evaluated, and the solutions will be presented in class by best-performing student(s).

Expected competences acquired after completion of the module: By the end of the course, students will:

- get familiar with RStudio Integrated Development Environment (IDE).
- understand the coding basics of R programming (syntax and operations, control structures, testing techniques, piping) and its applications in data science,
- learn to manipulate datasets, tidying and transforming data (importing, exporting, wrangling),
- learn about layered grammar of graphics,
- be able to create plots and visualize data,
- learn to do exploratory data analysis using plots and graphics, and visualization techniques,
- gain the skills required to communicate their understanding and insights obtained from data visualization techniques and descriptive analysis of complex datasets.

Main course materials:

- Wickam, H., Cetinkaya-Rundel, M., & Grolemund, G. (2023). R for Data Science: Import, Tidy, Transform, Visualize, and Model Data, ISBN-13: 978-1492097402.
- Grolemund, G. (2014). Hands-On programming with R: Write Your Own Functions and Simulations. ISBN-13: 978-1449359010.

Contact Information: Dr. Zahra Kamal; e-mail: zahra.kamal(at)uni-mannheim.de

28.05.2024

### **Zusätzliche Veranstaltung: Moderne Klimapolitik**

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Modulverantwortlich: Prof. Tom Krebs, Ph.D.

Turnus des Angebots: jährlich

ECTS-Punkte: 6

Lehrmethode (Umfang): Blockseminar (2 SWS)

Unterrichtssprache: Deutsch

Teilnahmevoraussetzungen: Makroökonomik A und B, Mikroökonomik A und B

Benotung: ca. 45 Minuten Vortrag (einfach gewichtet) und 12-15 Seiten schriftliche Seminararbeit (doppelt gewichtet).

Erwartete Zahl der Teilnehmer\*innen: max. 16

[Termine](#)

Ziele und Inhalte des Moduls: Das Seminar beschäftigt sich mit den wirtschafts- und klimapolitischen Maßnahmen, die eine erfolgreiche sozial-ökologischer Transformation der Wirtschaft ermöglichen. Das Ziel der Veranstaltung besteht in der Diskussion der theoretischen und empirischen Fundierung der klimapolitischen Maßnahmen, die von der neuen Bundesregierung im Koalitionsvertrag festgelegt wurden.

Erwartete Kompetenzen nach Abschluss des Moduls: Die Studierenden lernen, selbstständig wirtschaftswissenschaftliche bzw. klimapolitische Fragestellungen durch Literaturrecherche und eigenständige Bewertung der Quellen zu beantworten. Dabei wenden die Studierenden die in den Vorlesungen Makroökonomik A und B sowie Mikroökonomik A und B erworbenen Kompetenzen in konkreten Beispielen an. Für die Präsentation der Ergebnisse im Rahmen des Blockseminars entscheiden die Studierenden selbst kooperativ über die Verteilung der einzelnen Präsentationsschwerpunkte untereinander.

Kontakt: Corinna Jann-Grahovac, Tel: (0621) 181-1851, E-Mail: [cjann@uni-mannheim.de](mailto:cjann@uni-mannheim.de), Montag - Donnerstag, 9:00 - 13:00 Uhr.

### **Veranstaltung entfällt: Makroökonomische Analyse der Hartz-Reformen**

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Modulverantwortlich: Prof. Tom Krebs, Ph.D.

Turnus des Angebots: jedes Semester

ECTS-Punkte: 6

Lehrmethode (Umfang): Blockseminar (2-SWS)

Unterrichtssprache: Deutsch

Teilnahmevoraussetzungen: Makroökonomik A und B, Mikroökonomik A und B

Benotung: ca. 45 Minuten Vortrag (einfach gewichtet) und 12-15 Seiten schriftliche Seminararbeit (doppelt gewichtet).

Erwartete Zahl der Teilnehmer\*innen: max. 16

#### Termine

Ziele und Inhalte des Moduls: Das Seminar beschäftigt sich mit den gesamtwirtschaftlichen Auswirkungen der Hartz-Reformen. Das Ziel der Veranstaltung besteht in der Diskussion der theoretischen Erklärungsansätze für die einzelnen Reformen wie auch in der empirischen Überprüfung des Reformenerfolgs. Jede der vier Hartz-Reformen I-IV wird hierbei als Thema an mehrere Studierende vergeben. Das jeweilige Thema wird als Gruppe vorgetragen, die Seminararbeiten jedoch individuell verfasst.

Erwartete Kompetenzen nach Abschluss des Moduls: Die Studierenden lernen, selbstständig wirtschaftswissenschaftliche Fragestellungen durch Literaturrecherche und eigenständige Bewertung der Quellen zu beantworten. Dabei wenden die Studierenden die in den Vorlesungen Makroökonomik A und B sowie Mikroökonomik A und B erworbenen Kompetenzen in konkreten Beispielen an. Für die Präsentation der Ergebnisse im Rahmen des Blockseminars entscheiden die Studierenden selbst kooperativ über die Verteilung der einzelnen Präsentationsschwerpunkte untereinander.

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