

Dear Applied Economics and Data Analysis student,

I am really excited to welcome you to our brand two-year Master programme in Economics, *Applied Economics and Data Analysis* and provide you with some initial information regarding your programme as well as your first two courses. I am very happy that you chose this programme, and I can assure you that I, together with my colleagues, will do our best to give you a great programme and experience here at JIBS. For more information about what the teaching will be like due to Covid-19 check our [webpage](#) where new info is regularly posted.

The programme aims to build your competencies to work with economic issues and analyse large quantities of data, including programming skills. The education prepares you for positions demanding specialised analytical and methodological skills in economics. As a result, you as a graduate will have the skills to work closely with the decisions of the various companies /organisations. You will be able to process, analyse data, and pass on these results to your colleagues and managers. These skills are important both in the private sector and in the public sector. After completing the programme, you will thus be well prepared for positions requiring either practical or scientific knowledge.

The programme starts up on Monday the 23rd of August with a formal roll call. Then, these two courses are the first ones you will take.

Advanced Microeconomics

This course will provide you with an introduction to the the behaviour of economic agents and institutions. The main topics covered in the course are:

- The methodology of economic analysis.
- Formal representations of the behaviour of consumers and firms.
- Investment decisions.
- Games and strategic behaviour.
- Competitive market analysis.
- Analysis of oligopolistic markets and markets with asymmetric information.
- Contracts and their incentive properties.

The coverage of the analytical tools in this course enables you to immediately apply such tools to concrete problems and provides the foundations for later courses in the programme.

The literature used in the course consists of one book as well as handouts posted in the web-page of the course:

Mas-Colell, A., Whinston, M. D. and J. R. Green (1995). *Microeconomic Theory*, Oxford University Press, Oxford et al. ISBN: 9780195102680

The examiner, and main teacher, is Assistant Professor Andrea Schneider (andrea.schneider@ju.se)

More information about the course, including the course syllabus for this course can be found [here](#). The schedule for your programme can be found [here](#) by choosing the Applied Economics and Data Analysis.

In parallel to this course you also take a course in mathematics, which provides a good base for later courses in both economics and econometrics.

Mathematical Methods for Economic and Financial Analysis:

In this course you are presented with mathematical tools for economic and financial analysis, including matrix algebra and dynamic mathematical systems. It also focuses on mathematical concepts useful for economics- or finance-focused courses later in the programme.

The contents of this course include:

- Set theory and functions.
- Matrix algebra: addition, multiplication, and inversion of matrices, eigenvalues.
- Constrained optimisation with inequality constraints.
- The envelope theorem.
- Difference equations.
- Differential equations.

The literature used in the course consists of one book, and supplementary material that is provided by the teacher:

Chiang, Alpha C. and Wainwright, Kevin C. (2005) *Fundamental Methods of Mathematical Economics* 4th edition, McGraw Hill [ISBN: 007-123823-9], or later edition.

The examiner and main teacher is Professor Scott Hacker (scott.hacker@ju.se).

More information about the course, including the course syllabus for this course can be found [here](#) and the schedule for your programme is given above.

I – Tina Wallin – as programme director is responsible for the overall coordination of all programme courses, ensuring high programme quality and also functions as a speaking partner for you as a student, and the faculty. You are more than welcome to get in touch with me with questions regarding the programme at any time. Questions regarding the individual courses are better sent directly to the course examiners.



Tina Wallin

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Programme Director JIBS
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We look forward to seeing you in August!

Tina and the teaching team of *Applied Economics and Data Analysis*