Orientation Program
For students of Master programs
School of Business and Economics

Thursday, 11th October 2018
Spandauer Straße 1, Room 220

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>10.00 – 10.20</td>
<td>Welcome from the Dean of the School of Business and Economics and the Student's Council of the School of Business and Economics.</td>
<td>Prof. Dr. Klapper Student Council</td>
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<td>10.20 – 11.00</td>
<td>General and study-specific information about examination procedures and regulations by the Chairman of the Examinations Commission and the Director of the Examination Office (in German!)</td>
<td>Prof. Weinke, PhD Ms Kath</td>
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<tr>
<td>11.00 – 11.30</td>
<td>Information regarding study abroad</td>
<td>Julia Brauer, International Office</td>
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<tr>
<td>11.30 – 12.30</td>
<td>Information on study organisation</td>
<td>Meret Borchmann, Study Office</td>
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Break

Presentation of course descriptions by department chairs (Business Administration)

Management Science
13.30 – 14.00  Management
Entrepreneurial and Behavioral Decision Making
Marketing
Business Information Systems
Operations Research
Prof. Dr. Klapper

Accounting/Taxation
14.00 – 14.20  Business Taxation
Accounting
Prof. Dr. Gassen

Finance
14.20 – 14.40  Finance
Prof. Stomper, PhD

Presentation of course descriptions by department chairs (Economics)
14.40 – 15.00  Macroeconomics
Prof. Weinke, PhD
15.00 – 15.30  Microeconomics
Prof. Weizsäcker, PhD
15.30 – 15.50  Economic History
Thilo Albers

Presentation of course descriptions by department chairs (Quantitative Methods)
15.50 – 16.10  Statistics and Econometrics
Dr. Burdejova

Doctoral Program (BDPEMS)
16.10 – 16.30  Information session for students interested in pursuing a doctoral degree
N.N.
Monday, 15th October 2018

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<th>Time</th>
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<tbody>
<tr>
<td>14.00 – 15.30</td>
<td>Information for international students “Studying in Germany”, Spandauer Straße 1, Room 220</td>
<td>Mickaël Maillé, International Office</td>
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<tr>
<td>16.00</td>
<td>A welcome for all newly enrolled students of the School of Business and Economics, Spandauer Straße 1, in the foyer of the Faculty</td>
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</table>

Other Social Events see [https://www.wiwi.hu-berlin.de/de/international/incomings/admission/welcome-weeks](https://www.wiwi.hu-berlin.de/de/international/incomings/admission/welcome-weeks)

Start of winter term 2018/19: Tuesday, 16th October 2018

Preparatory Courses

Mathematics Preparatory Course, Location: Spandauer Str. 1, 220

Daily 10.00 – 17.00 (incl. breaks):

October, 1st of 2018  
October, 2nd of 2018  
October, 4th of 2018  

Lecturer: Philipp Warode

Content:  
The purpose of this course is to review and practice basic mathematical concepts that will be useful throughout your master studies at our faculty. Topics will include:

- Basic Matrix Algebra (Systems of linear equations, Determinants, Eigenvalues)  
- Differential Calculus (of real and multivariate functions, Taylor series)  
- Optimization (of real and multivariate functions, with and without side constraints)  
- Integral Calculus

The course is open to all Master students and will be taught in English.

Advanced Mathematics Preparatory Course, Location: Spandauer Str. 1, 203

Daily 10.00 – 17.00 (incl. breaks):

October, 1st of 2018  
October, 2nd of 2018  
October, 4th of 2018  

Lecturer: Prof. Dr. W. Wang

Content: This background course on mathematics aims to provide fundamental mathematical knowledge essential for advanced economic analysis. Although open to all master students, it is specifically tailored to those wishing to directly pursue the advanced Y-track of courses. Therefore in content and form, this intensive course is intended to deliver methods beyond refreshing advanced calculus and linear algebra.

The course solely deals with deterministic mathematics. For some theorems formally rigorous proofs are presented in order to make participants more comfortable with - and ideally to provide some intuition for – constructing and understanding of mathematical proofs. Throughout the course proper use of notation will be stressed. Topics presented in class constitute the minimal required program
given the above aim, and the maximal feasible program given time. Self-study should cover topics skipped in class, as well as the areas of personal weakness.

The lecture takes place as an intensive crash course in the week before the semester.

1. Sets, Relations, Preferences
   - characterization of and operations on sets
   - truth function
   - mappings, functions and relations
   - preference relations

2. Vector Spaces and Linear Algebra
   - general vector spaces, linear independence, basis of a vector
   - linear mappings between vector spaces, matrix algebra
   - basis transformations, eigenvalue - eigenvector decomposition

3. Topology and Convex Optimization
   - general definition topology, open and closed sets, topological space
   - metric, metric space, sequences and convergence in general metric spaces
   - norm, normed space and completeness of spaces: Banach and Hilbert spaces
   - continuity in general spaces
   - compactness and convexity, concavity of sets and functions and relations
   - separating hyperplane theorem
   - correspondences and fixed point theorems
   - existence result of convex optimization problem: Kuhn-Tucker Theorem

4. Differential calculus
   - differentiability in one and higher dimensions
   - Taylor approximation
   - optimization problems

**Econometrics Preparatory Course, Location: Spandauer Str. 1, Room 220**

Daily 9.30 – 14.30 (incl. breaks):
5th October 2018
8th October 2018
9th October 2018
10th October 2018

Lecturer: Julien Kraemer and Lixing Wang

Content:
1. Motivation
2. The Simple Regression Model (OLS: assumptions, model and estimator, Goodness-of-Fit, Statistical properties of the OLS estimator)
3. The Multiple Regression Model (Model, Interpretation of coefficients, Gauss-Markov-Theorem)
4. Inference & Hypothesis Testing (Testing a single parameter: the t-Test, Testing a linear combination of parameters, Testing multiple linear restrictions: the F-Test, Confidence intervals, OLS asymptotics)
5. Heteroscedasticity and Autocorrelation