Quantitative Methods 1

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Workload</th>
<th>Credits</th>
<th>Semester</th>
<th>Frequency of Module</th>
<th>Duration</th>
</tr>
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<tbody>
<tr>
<td>IBM 04</td>
<td>180 hrs.</td>
<td>6</td>
<td>1</td>
<td>Only winter semester</td>
<td>1 Semester</td>
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1. **Module Components**
   a) Quantitative Methods 1
   b) Applied Quantitative Methods 1

2. **Teaching Language**
   a) English
   b) English

3. **Contact Hours**
   a) 22.5 hrs.
   b) 22.5 hrs.

4. **Self Study**
   a) 67.5 hrs.
   b) 67.5 hrs.

5. **Class Size**
   a) 50
   b) 50

2. **Learning Outcomes**
   After successful participation in the module the students ...

   **Knowledge (1)**
   ... ... be cognizant of the importance of quantitative analyses in the context of business and management
   ... ... be acquainted with the normal distribution as an example of continuous probability distributions
   ... ... be familiar with the basic principles of probability theory
   ... ... know the fundamental principles of descriptive statistics
   ... ... understand the relevance of sampling methods

   **Comprehension (2)**
   ... ... understand the statistical concept of probability
   ... ... discuss the most important methods of descriptive statistics
   ... ... discuss measures of association between two variables
   ... ... summarize quantitative data with statistical measures of location and dispersion
   ... ... present quantitative data in graphic form

   **Application (3)**
   ... ... use Excel as an analytical tool
   ... ... apply descriptive statistics to present quantitative data in a business environment,
   ... ... apply selected quantitative tools and develop spreadsheet calculations,
   ... ... put quantitative analysis in the context of business decision making.

   **Analysis (4)**
   ... ... measures of location, dispersion and association as well as probabilities of events

   **Synthesis (5)**
   ... ... apply quantitative tools to present and explain business and capital markets data.
   ... ... explain the use of different quantitative tools in a business and management application,
   ... ... use quantitative tools as a means for decision making

   **Evaluation (6)**
   ... ... relate quantitative analysis to other fields in particular, finance
   ... ... utilize different sampling methods to collect data in a business context
   ... ... interpret statistical data in a business context,
### Individual Component Content

a) • Data and Statistics • Descriptive statistics: Tabular and graphical presentation
   • Descriptive statistics: Numerical measures
   • Introduction to probability • Continuous probability distributions
   • Sampling and sampling distributions

### Teaching Methods

a) Lecture
b) Practical

### Prerequisites

None

### Methods of Assessment

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
<th>Credit Points</th>
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<tbody>
<tr>
<td>Modulprüfung Quantitative Methods 1 1sbH (Written Elaboration) (3 LP)</td>
<td>33%</td>
<td>3</td>
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<td>Modulprüfung Quantitative Methods 1 1K (Written Exam) (3 LP)</td>
<td>67%</td>
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### Applicability of Module

International Business Management B.A. (IBM)

### Person Responsible for Module

Prof. Dr. Uwe Hack (Module Responsible)

### Reading List (Core Texts and Recommended Texts)

   South-Western College Publishing

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1 This graded assessment is only considered passed when all components of the assignment have received a minimum grade of "adequate", (4.0).