Quantitative Methods, intermediate level

Basic information of the minor

**Code:** BIZ31320  
**Extent:** 24 ECTS  
**Language:** English (some courses in Finnish)  
**Organizing department:** Information and Service Management  
**Teachers in charge:** Tomi Seppälä  
**Administrative contact:** Elli Hämäläinen  
**Target group:** All Aalto students  

**Application procedure:** All Aalto students can choose this minor. However, many courses have limited number of seats and students are selected according to the order of priority confirmed in the course description. You should pay attention to the course-specific prerequisites and make sure you meet them in order to succeed in the courses.

Content and structure of the minor

Nowadays large amounts of data are being automatically created through current IT technologies and database systems. As a result, the demand for specialists who are able to manage, analyse and model the rapidly growing supply of information has enormously increased over the last years and will continue to do so in the future. A minor in Quantitative Methods provides both theoretical and practical knowledge of mathematical and statistical tools that can be used to analyse data to support managerial decision making and economic policy. The aim is to effectively use modern managerial tools, such as quantitative models and information technology, in solving practical business problems. The main themes include statistical methods, simulation, optimization, management decision making, risk management, and econometric methods.

Structure of the minor

Minor in Quantitative Methods can be completed either as intermediate level (BIZ30800) or as advanced level (BIZ41305). Advanced level minor is targeted to Master's level students. If you complete the minor as intermediate level, you can only choose intermediate level courses. If you complete the minor as advanced level, you can freely choose courses from both intermediate level and advanced level offerings.

Choose four of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>ECTS</th>
<th>Period</th>
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</thead>
<tbody>
<tr>
<td>ISM-C1004</td>
<td>Business Analytics 1</td>
<td>6</td>
<td>II</td>
</tr>
<tr>
<td>ISM-C1100</td>
<td>Tilastotieteen jatkokurssi ja R (in Finnish) *)</td>
<td>6</td>
<td>III</td>
</tr>
<tr>
<td>30A03000</td>
<td>Talousmatematiikan perusteet (in Finnish) ?</td>
<td>6</td>
<td>III</td>
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<tr>
<td>30C00200</td>
<td>Econometrics</td>
<td>6</td>
<td>III</td>
</tr>
<tr>
<td>30C00355</td>
<td>Business Mathematics II *)</td>
<td>6</td>
<td>V</td>
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</table>
Quantitative Methods studies at another university or another Aalto School 6-12

*) If not already included in the specialisation area studies

**) Replaces course 30C00300 Mathematical Methods for Economists

***) Must be agreed in advance with the coordinator. Suitable studies can be found for example from Systems Sciences (Systeemitieteen) at the School of Science (courses only in Finnish)