

Pre-course Mathematics for Bachelor in Management & Technology at TUM Campus Heilbronn

Mathematics is central to understanding management and technology. Most theories, approaches, and concepts are based on quantitative models and require advanced calculations. While you will certainly acquire further mathematical skills over the next years, it is quite important for you to have a solid understanding right from the start; that is, an understanding that we can build on.

This pre-course has several objectives:

- repeat what you have learned before – maybe you covered some of the topics some time ago,
- identify gaps and close them effectively,
- get used to talking about mathematics in English,
- provide some examples for applications of mathematics in a management context; while some of them will be discussed in depth later on during your studies, you should already now see how essentially all areas within management require mathematics (at least to some degree).

In addition, it is a great way to meet some fellow students and to get familiar with TUM infrastructure both offline and online, so that you are ready for the real modules starting in the first semester.

The course is taught using blending learning, combining online and offline elements. Online, that is on Moodle, you will be presented with a series of content-heavy videos, where the content and theory are derived and discussed. You can study them wherever and whenever you want. On Moodle, there is also a series of questions that are all being automatically corrected to get immediate feedback on your performance and identify gaps. On three days, we have dedicated classroom sessions where we will discuss some of the content (with a certain, specific focus), where we work through selected exercises and discuss your questions and answers.

Classroom sessions will take place

- Tuesday, 01.10.2019, 9.30 AM – 12.00 PM and 1 PM – 3:30 PM room L.1.11 in HN
- Monday, 07.10.2019, 9.30 AM – 12.00 PM and 1 PM – 3:30 PM room L.1.11 in HN
- Tuesday, 08.10.2019, 9.30 AM – 12.00 PM and 1 PM – 3:30 PM room L.1.11 in HN

Of course, it is highly recommended that you work and discuss exercises in groups of students. While there is no formal meeting/lecture on other days during the first two weeks, we recommend you blocked some time to work through online material and tasks; this can be done alone or in small groups.

All course material will be provided through Moodle, so that you can get familiar with this online learning platform. You should be registered automatically for this course after your enrollment. If there are any issues and you still have no access by October 1 (which might occasionally happen), you will get access asap.

Finally, this blended design has a further purpose. If you are not able to be physically present in Heilbronn during the course, you may still participate. All content is online, and you can study even from abroad. Having written this, if you have any chance to be present and meet students and myself in Heilbronn, attending classroom sessions is highly recommended.