

# Experiences of a pandemic-affected international M.Sc. semester

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## Abstract:

In March 2020, the COVID-19 pandemic broke out across Europe when the Cartography M.Sc. ([www.cartographymaster.eu](http://www.cartographymaster.eu)) students just arrived in Vienna for their second semester. The pandemic struck the whole world, but more vigorously to the Cartography M.Sc. students, as they just came to a new country with limited knowledge of its regulations and even its language. Yet, the students and the lecturers showed great adaptability to the unexpected situation and shared a fruitful semester. Now, more than a year after the COVID-19 outbreak, we realise that the pandemic may go away, but its influence will stay. Therefore, we are sharing our experience with both international and local students during the pandemic-affected semesters, hoping to evoke discussions, which may lead to new insights into future cartography education.

Before the pandemic, the semester was structured with one theoretical course, within which we invited researchers from other universities to give guest lectures, and nine other courses, combining theory and exercises. Many of the courses were planned with group exercises to train students' teamwork, help them balance their skills within the group, and mix the international students with the locals for better integration.

When the pandemic started, our university closed after the first teaching week. All the lecturers in charge of the Cartography M.Sc. decided to switch to distance teaching. Some chose to teach live by trying different platforms (Zoom, YouTube, Skype, etc.), while others were busy equipping themselves with knowledge on recording and editing videos. Some lecturers decided to break down the big group projects into smaller individual projects, while others kept the original structure of their courses. With this, we were able to compare the different teaching methods later. During the semester, in hoping of the university's reopening, some lecturers postponed their field measurements and experiments, which in the end worked well for the local students, while the internationals had to perform alternatives due to their limited stay in Vienna. Combined with students' feedback, we would like to summarise our experience as follows.

1. Students reported preferring a combination of live teaching and recording. This means, they preferred to attend the live session to be able to interact with the lecturers, while having the recording of the live session available for later reviewing the content.
2. Theory oriented guest lectures were more accessible to arrange than before the pandemic. Distance teaching allows us to reach more researchers, which we would like to keep after the pandemic. However, the field measurements and experiments were largely hindered, giving us a chance to re-think them and think of long-term alternatives.
3. The situation encouraged us to teach in open-source software instead of the commercial ones installed in our lab computers, which was not accessible during university closure. The students well perceived this switch.
4. Individual projects were easier to accomplish during lockdown than group projects, but they may limit what students can achieve in the course. Despite the extra challenge during the lockdown, students still preferred the group projects, because of the interaction and collaboration with fellow students. If cartography related platforms could offer collective contributions to the same project within the platform, distance collaboration of the students would be largely eased.