

**LESSONS LEARNT FROM
EMERGENCY SITUATION:
Distance learning at the
University of Tartu**

SUMMARY

The analysis of coping with the emergency situation was commissioned by the Rector's Office of the University of Tartu. The study was conducted by the Centre for Applied Social Sciences (CASS), University of Tartu.

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CASS

CASS is a network-type centre for applied research and analysis in social sciences. Our mission is to promote knowledge-based decision-making in Estonia. Besides the CASS team, we involve experts of the University of Tartu and, if necessary, external experts in our research to ensure the highest quality. The CASS network includes both social scientists and representatives of the faculties of medicine, science and technology and humanities.

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INTRODUCTION

On 12 March 2020, emergency situation was declared in the Republic of Estonia due to the fast spread of COVID-19. Due to the changed situation, work in many enterprises and institutions had to be reorganised. The University of Tartu had to reorganise both work and teaching. In the context of teaching and studies, the emergency situation meant replacing classroom study with distance learning.

The aim of the study “Lessons Learnt from Emergency Situation” is to reflect on how the University of Tartu as an organisation coped with reacting to the crisis, and to what extent it is possible to use the experiences gained from the emergency situation to plan future work.

The study aimed to find answers to the following questions:

- **How did we cope with teaching and studies during the emergency situation?**
- **What was complicated, what was a success, what did we learn?**
- **What must we be ready for in autumn? What do we want to change in the longer run?**
- **Do the students’ grades, feedback and other data give evidence of how we coped with distance learning (incl. e-learning)? Are there any differences within the university?**

The data was collected using both qualitative and quantitative methods. Interviews were conducted with parties connected with teaching and learning – support staff for academic affairs, teaching and research staff, managers, students and student advisers, and technical support staff. For processing quantitative data, researchers used the data provided by the Office of Academic Affairs: student feedback data, and data on interruption of studies, academic leave, ECTS earned from mobility, traineeship or other areas that the virus outbreak may affect.

RESULTS

- The self-regulation and self-management skills that are acquired during studies help students cope with distance learning – independent learning may be particularly complicated for first-year students. **Training courses** supporting the development of learning skills (e.g. training by student advisers) or subject courses organised in the form of **continuous work** (more, smaller tests during the semester) support students' learning motivation and more efficient time use both in the so-called normal learning conditions and during the emergency situation.

“Learners with sufficient self-regulation and self-management experience did well. It is difficult for weaker learners to cope if they do not have a teacher’s support.”

Lecturer

- A subject course is a whole, and in addition to the place of teaching/learning (online, lecture hall, etc.), it is necessary to consider the teaching methods. The emergency situation arrived unexpectedly and the focus shifted on the technical issues of transition to distance learning, while the methodological approach remained in the background.

- Increase in the workload related to the emergency situation was a psychosocial risk factor for university employees. Among other issues, respondents mentioned **fatigue and burnout** caused by prolonged working hours, the feeling of isolation and the uncertainty arising from the new situation. Organisation of studies during the emergency situation also caused **anxiety, uncertainty of coping, and loss of motivation** in students – in many cases, the volume of independent work increased, which caused uncertainty in students whether they can cope (well) with the assignments. As positive examples, the respondents mentioned situations in which colleagues or students got together (joint discussions, exchange of experiences, etc.). This reduced the feeling of being alone, and relieved tensions.

“The choice is between sparing yourself and sparing your students.”

Lecturer

- In preparation for more extensive use of e-learning, it was found important to create at least one **hybrid classroom** in each academic building. This is inevitable for being able to continue distance education in case the situation does not normalise. However, it is also the basis for the sustainable and high-quality use of new forms of e-learning. Real-time teaching simultaneously in the lecture room and via e-tools may also mean that the responsible teacher would need additional help to conduct the course (for example, teaching assistants).
- In connection with distance learning, issues of data protection and rights emerged, particularly concerning the use of e-learning tools. To protect the interests of the university and the students, it is necessary to make agreements on the teachers' requirements and the students' willingness to share data. **A person's voice and image are personal data. To record them, consent must be obtained from participants.**
- Operative communication of central information to programme directors was praised (and primarily, the work of the vice rector for academic affairs in this area). To what extent the information reached other important parties (e.g. heads of institutes, lecturers and other teaching staff) was largely dependent on the internal communication practices of the units (for example, some members of teaching staff mentioned that the rector's visibility during the emergency situation was low). Respondents perceived that a much wider circle of people than just programme directors would be interested in participating in such information-sharing meetings (coffee with vice rector for academic affairs).
- It was reported that the Estonian and the international students and teaching staff are not in the same information space, and that the English-speaking university community receives information later. Yet namely international students and staff were in a somewhat more complicated situation due to the limited availability of information about the general situation in society (e.g. about emergency situation on the local level, local requirements). **It is important that all university staff and students receive central communication at the same time, regardless of the language they speak.**
- While this year's pandemic had no considerable effect on the **academic results of students**, it has caused the need to considerably change the grading methods of courses, mainly from differentiated to non-differentiated grading.

Table 1. Exam grades in spring semester, 2016–2020, %

Semester	A	B	C	D	E	F	Not present
2015/16 spring	28%*	25%	19%	11%	6%	3%	8%
2016/17 spring	31%	25%	19%	10%	5%	3%	6%
2017/18 spring	32%	25%	19%	10%	5%	3%	5%
2018/19 spring	33%	25%	18%	10%	5%	3%	5%
2019/20 spring	39%	26%	17%	8%	4%	3%	4%

*Statistically significant differences in the comparison of the years are shown in red and blue

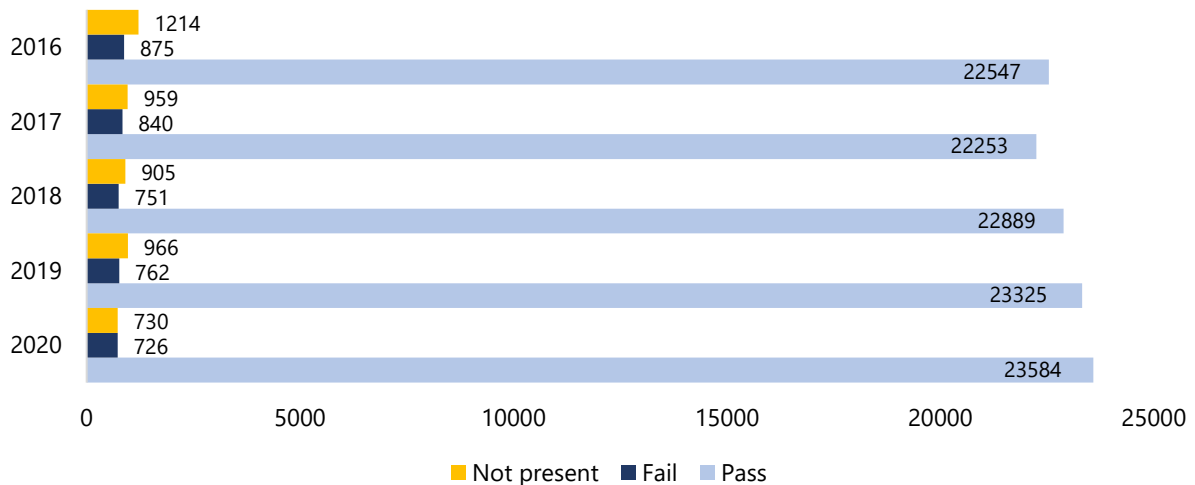


Figure 1. Results of non-differentiated grading (absolute figures) in spring semesters 2016–2020

- The analysed data show no correlation between this spring’s pandemic and interruption of studies. More precise conclusions about dropping out can be made in autumn, when we know the number of students who failed to pass resits by that time.
- The percentage of students who went on **academic leave** from 1 March to 30 May varies between levels of study, years of study, faculties and certain institutes; and there are also differences by years. Among third-year bachelor’s students, the growth in the percentage of those taking academic leave the spring of 2020 differs quite clearly from the spring semesters of previous years. The institutes standing out for the number of students taking academic leave this spring were the Institute of Computer Science, Institute of History and Archaeology, Institute of Estonian and General Linguistics and Institute of Family Medicine and Public Health.
- The COVID-19 **outbreak had a significant effect on credits earned during outward mobility**. Compared to previous years, this academic year there were considerably more students who participated in academic mobility without earning any credits.

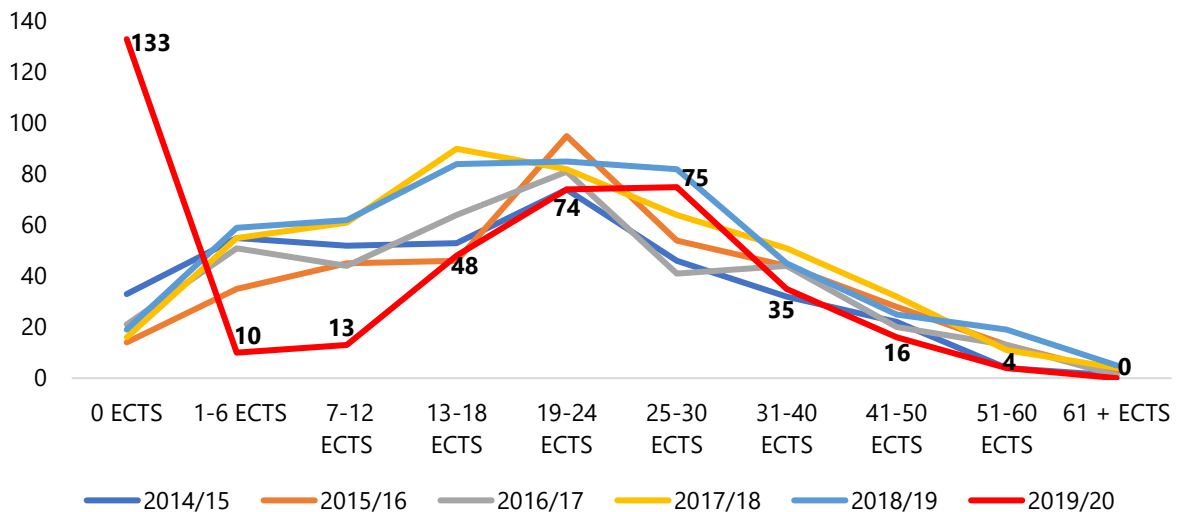


Figure 2. Number of ECTS credits from foreign countries, 2014/15 – 2019/20

- This spring's **virus outbreak had a clear impact on the number of credits earned for traineeship**, particularly in the Faculty of Social Sciences. This faculty includes Narva and Pärnu Colleges where the education is more applied and where practical training has a very important role. Even more, however, the effect of the emergency situation may manifest itself in the way the practical training was organised.

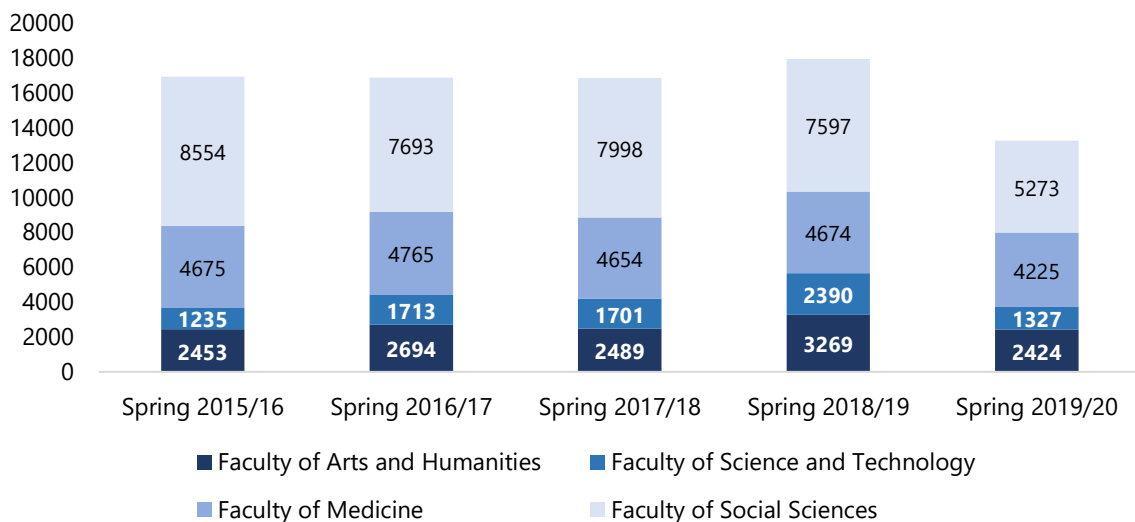


Figure 3. Credits earned for traineeship in the spring semester by faculties, 2015/16 – 2019/20

- The number of partly and fully web-based courses increased this spring** and there is reason to believe that this is mainly due to the virus outbreak in the spring. Still, the number of Moodle courses has shown stable increase over recent years and, at least according to current data, the year 2020 does not stand out. Increase in the number of Moodle courses is not remarkable – syllabuses have consistently been transferred to Moodle over the years, and therefore, there was no great additional need for that during the pandemic. A significant change was the increase in the number of video lectures and webinars. When the university switched over to distance learning, increasingly more digital solutions were taken into use to bring the lectures and seminars to students.

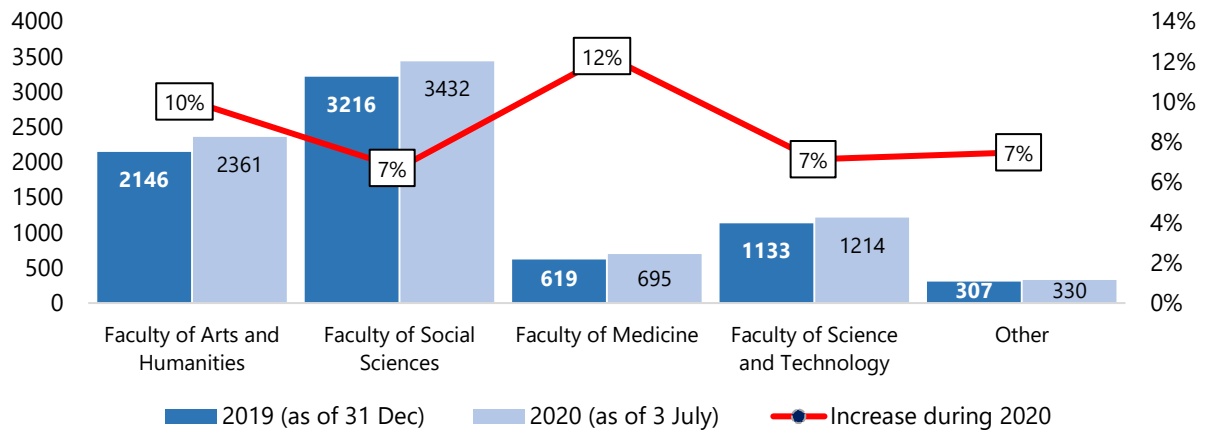


Figure 4. Number of Moodle courses and increase (%) by faculties 31 December 2019 – 3 July 2020

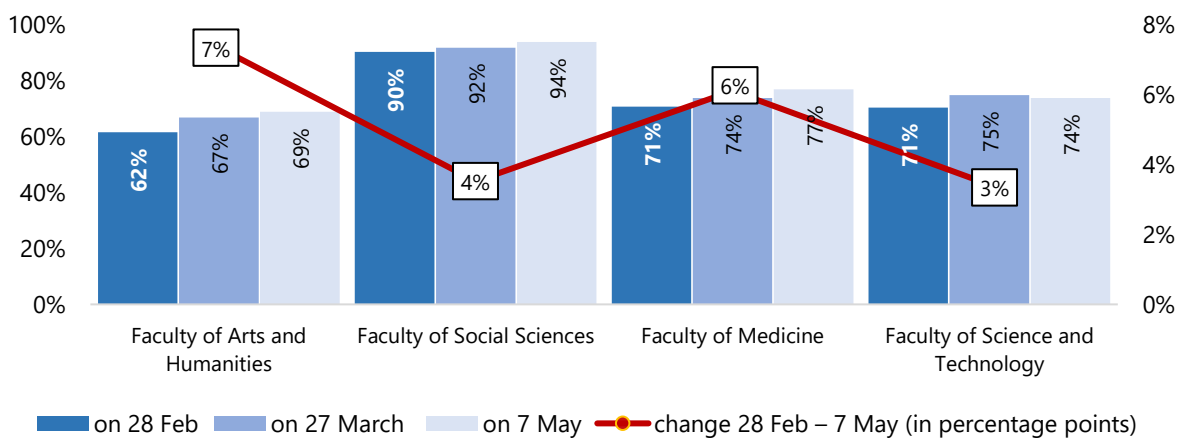


Figure 5. Percentage of partly and fully web-based courses and change 28 February – 7 May 2020

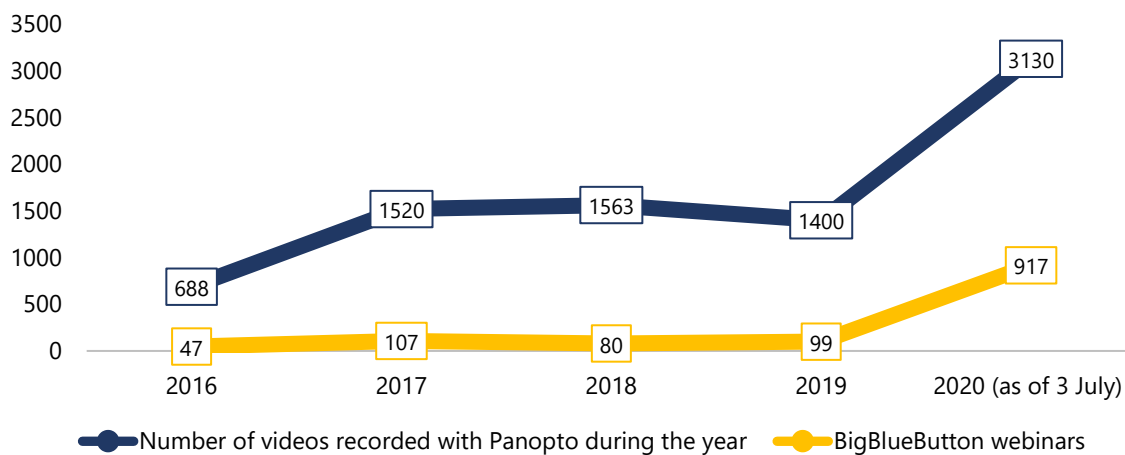


Figure 6. The number of videos recorded with Panopto and BBB webinars, 2016–2020

- According to course feedback surveys, average ratings to courses decreased throughout in the Institute of Technology of the Faculty of Science and Technology, while the ratings to courses of Viljandi Culture Academy show large fluctuations. The Faculty of Arts and Humanities and the Faculty of Social Sciences have done better: students rated their courses somewhat higher. In the Faculty of Science and Technology, the ratings to courses decreased

compared to previous spring in almost every unit except the Institute of Computer Science. In the Faculty of Medicine, the ratings also mostly dropped, except in the Institute of Family Medicine and Public Health, and the Institute of Pharmacy.

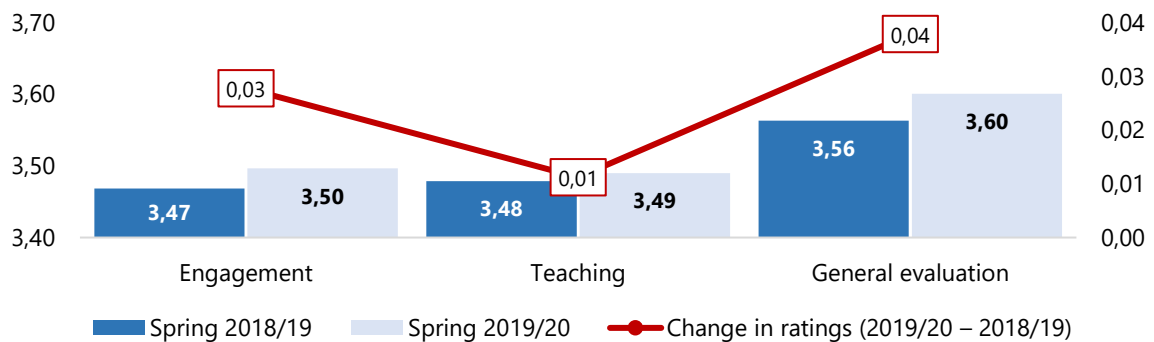


Figure 7. Student feedback to courses in three categories (average) spring 2018/19 – spring 2019/20

- **The number of graduates this spring was not smaller than in recent years.** The number of students graduating in the spring semester has been growing since 2017. The growth trend has remained stable, i.e. the effect of the virus outbreak is not noticeable.

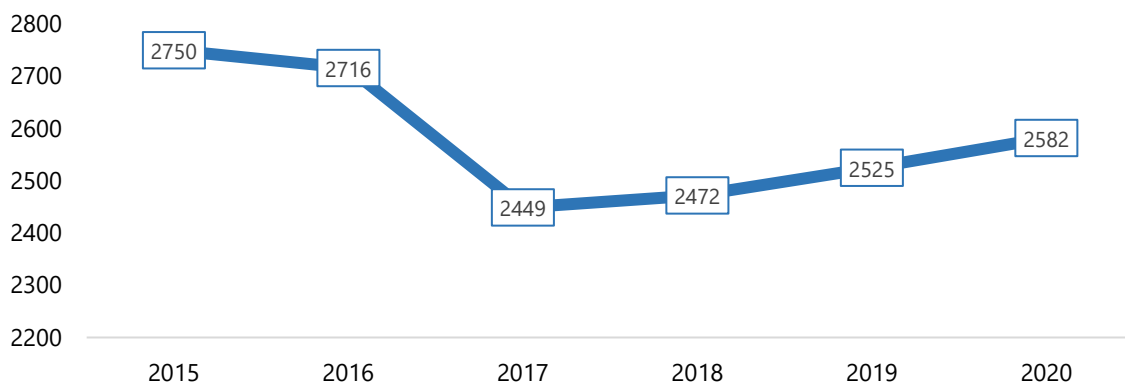


Figure 8. Number of students who graduated in spring semester 2015 – 2020

- **A large percentage of students (59%) believed that teaching and learning functioned rather well, and 25% thought it functioned very well.** Only 2% of the respondents said that teaching and learning worked very badly. Therefore, the general university-wide picture is very positive. Most of the students (in both number and percentage) who answered that teaching and learning worked very well during the emergency situation were from the Faculty of Social Sciences. Lower ratings to how teaching and learning functioned during the emergency situation were given by students of the Faculty of Medicine and Faculty of Science and Technology.

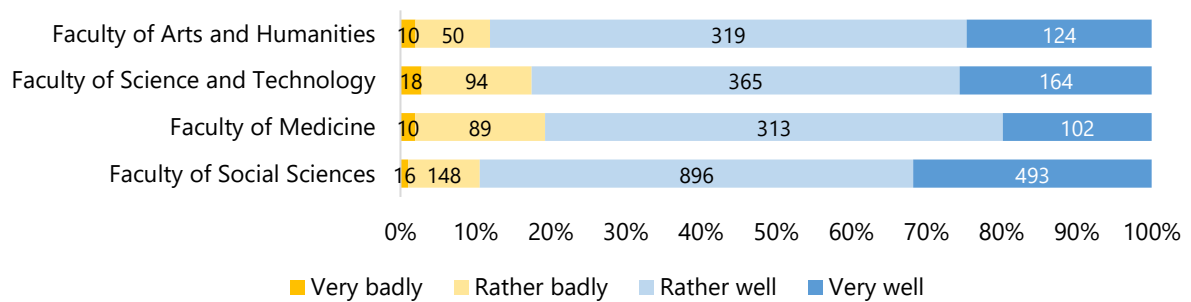


Figure 9. Student ratings on how well the teaching and studies functioned at the university during the emergency situation, by faculties

HOW DID WE COPE WITH TEACHING AND STUDIES DURING THE EMERGENCY SITUATION?

While the university as a whole managed well during the emergency situation, some problems still emerged. Solutions to organising distance learning were found generally quite quickly but in the feedback on many courses, the inadequate role of teaching staff in conducting distance learning, the lack of variety of (e-learning) materials, and unclear assessment was criticised. At the beginning of the transition to distance learning, there were problems with sharing information. Another concern was the difference between the digital skills of teaching staff and students. Most of all, the virus outbreak affected the students of applied curricula.

WHAT WAS COMPLICATED, WHAT WAS A SUCCESS, WHAT DID WE LEARN?

The challenges of distance learning were the methodology problems – how to ensure quality and quantity when teaching and learning remotely. The feedback on some courses clearly illustrated students’ concern over unachieved learning outcomes. According to support staff for academic affairs, the greatest success of the emergency situation was the push to rapid digital development, which helped – due to the necessity – to introduce different e-learning tools to many more teachers. What could be regarded as a failure were the uneven technology skills, inadequate supervision by teaching staff, and the transition of applied curricula to online learning. In addition, student feedback showed that they would prefer the use of more, and more varied, e-learning options in the courses. Recorded video lectures are irreplaceable in some courses, while in others more tools are needed, e.g. to organise webinars. Using only written materials is generally not enough for students.

WHAT MUST WE BE READY FOR IN AUTUMN? WHAT DO WE WANT TO CHANGE IN THE LONGER RUN?

Most of all, the emergency situation caused problems for first-year students. When the next emergency is declared, we have to critically review the materials and methods used in first-year courses, because students can very soon start feeling isolated. Clear communication of regulations supports teaching staff in making uniform and quick decisions. A university-wide approach is beneficial in making general decisions related to academic affairs (e.g. regulations on changing the assessment system, extension of deadlines, defence of graduation theses). The major problem mentioned by students was increased workload – partly because cancelled lectures were replaced with independent tasks, but often no instructions were given to them. Distance teaching requires lecturers to systematise study materials and assignments, ensure the availability of necessary resources for the tasks (written materials, analysis software, etc.) and take into consideration that the use of e-tools in teaching demands a different methodological approach from teaching face-to-face classes.