

Concept for the implementation of online exams in SoSe 2020 at the Nordhausen University of Applied Sciences

1 Intention for the changeover to online exams

In the context of the current SARS CoV 2 pandemic, the health of all students, university employees and examination supervisors is the top priority when it comes to planning and conducting examinations in the summer semester 2020 (SoSe 2020). The recommendations of the Robert Koch Institute (RKI) and the Thuringian Ministry of Labour, Social Affairs, Health, Women and Family

(TMSGFF), we strongly advise against larger gatherings of people. Accumulations of people are also subject to strict conditions regarding hygiene regulations and distance regulations. These have a significant impact on the space available for on-site inspections. It should also be noted that most students are currently located in their home regions and would have to make long trips to Nordhausen for attendance examinations. This poses an additional risk of infection, which must be avoided. Furthermore, a large part of the supervisory staff falls into the group of risk persons.

In view of the university's decision to design the current semester as a purely online semester, the crisis management team and the university management of Nordhausen University of Applied Sciences therefore strongly recommend the use of online examinations as a rule. This should only be deviated from if there are special reasons (e.g. revision exams from the previous semester). The decision on this is made by the respective examination board. This committee is responsible for the proper implementation of the examinations in accordance with the general regulations of the Federal Government, the Free State of Thuringia, the District of Nordhausen and the protection concept of Nordhausen University of Applied Sciences which are valid in the current situation. The responsible examination board is responsible for deciding on any measures not regulated in the protection concept of the University of Applied Sciences that are relevant to the respective examinations in accordance with the applicable regulations regarding SARS CoV 2 prevention.

2 General Regulations for Online Exams

The implementation of online exams requires a number of rules and guidelines to be taken into account. These include among others:

- the maintenance of equal opportunities for students,
- the protection of the copyright of the tests provided,
- the unique identification of the test subjects prior to the test,
- the prevention and punishment of attempts at deception during testing,
- compliance with all data protection regulations,
- the technical stability of the test execution,
- informing students about their options and the changed regulations for the SoSe 2020

The following applies to the examinations in the summer semester 2020:

- Each examination is to be held either as an online examination or as an attendance examination.

- There is no compulsory registration for examinations. Exams of any kind that are taken but not passed do not count as failed attempts.
- The examination period will be extended by two weeks in order to take into account the additional effort required to conduct both online and attendance examinations under the given circumstances and requirements.
- Cancellation of examinations up to one day before the examination is possible without giving reasons via the online portal (QISPOS) provided by the university. In addition, it is possible to withdraw on the day of the examination up to the day before the examination begins by sending an e-mail to the Examinations Office.

For all online examination forms, video and microphone approval by the students is required in order to guarantee electronic supervision of the examination (proctoring). A corresponding data protection declaration is formulated in advance and should then be used uniformly for all online examinations. The declaration is necessary because ongoing video and audio recordings are made by students in their private environment. This cannot be made mandatory. However, as it is a prerequisite for taking online examinations, it must be communicated transparently in advance that consent under Art. 4 No. 11 DSGVO must be given voluntarily. If students do not wish to do so or do not have the necessary technical equipment (webcam, microphone, stable Internet connection), they can apply to the Examinations Office (pruefungsamts@hs-nordhausen.de) to take the exam at the university. However, this should be an exceptional situation, as the PC laboratories of the university can only provide limited space due to the distance regulations. Depending on the type of test in a PC laboratory or in a seminar room. The registration for this must take place within the examination registration period. This option is limited by the respective room capacity at the time of the respective examination.

Depending on the type of test in a PC laboratory or in a seminar room. The registration for this must be made within the examination registration period. This option is limited by the respective room capacity at the time of the respective examination. By guaranteeing both options for taking the exam, the registration is voluntary.

A corresponding hygiene and protection concept will be developed or the protection concept of the university will be supplemented for the performance of examinations in PC laboratories. This can be found on the HS website https://www.hs-nordhausen.de/fileadmin/daten/aktuelles/corona/Schutzkonzept_HSN_02-06-2020.pdf

Students must be granted the same rights for both face-to-face and online examinations (e.g. compensation for disadvantages, inspection, second and third correction). Compensation for disadvantages will be taken into account as before and applied for.

Students sign a declaration of autonomy digitally or by confirming this in a chat that they will take the online examination without external support and only with the expressly approved aids.

Should technical problems occur, students are asked to contact the respective proctor or examiner by telephone. The possibility of telephone contact must be guaranteed throughout the entire examination, both to the respective proctor and to the lecturers who administer the examination. If the problems cannot be solved within a period of 10 minutes, the examination can be considered not taken at the student's request. The following are considered not taken

Checks that are submitted as file uploads and have not been uploaded within the granted time span.

3 Necessary steps before an online exam

First of all, it should be noted that The design of the examination is entirely up to the lecturers in accordance with the rules of the responsible examination board. The following explanations should be seen as examples and recommendations.

The following models are conceivable for online examinations:

(1) Oral online examinations

These can be carried out via the university's video conference platform (BigBlueButton - BBB). Oral exams can be held individually or in groups via videoconferencing, similar to regular oral exams. It is important to note that according to § 54 (4) sentence 4 ThürHG, an assessor must be present in addition to the examiner. For oral online examinations a separate examination protocol will be provided by the Examination Office.

(2) Written examinations without aids

Written exams without approved aids can be created as Moodle quizzes. The questions are answered by the students in Moodle, e.g. via multiple choice questions (MCQ) or free text fields. The results are automatically stored temporarily in case the exam is aborted.

Alternatively, students can answer written exams digitally in a document (e.g. Word or Excel file) or handwritten on paper. The files or a photo or scan document of the handwritten exam can then be uploaded into Moodle. The documents must be clearly marked with the student's data (matriculation number, date, examination number, examination number).

The written exams are conducted via a separate browser - the Safe Exam Browser (SEB). The SEB severely limits the operating options on the students' side. The Safe Exam Browser must be installed in advance by the lecturer as well as by the student. Lecturers can use the software to create a configuration file for the exams. Students can open this file with the software and are automatically taken to the corresponding exam in Moodle.

The restrictions of the SEB include

no program changes are possible,

it is not possible to exit or minimize the SEB,

Functions such as copy and paste are deactivated,

the recording of screen contents (screenshots) is deactivated.

Some functions can be specifically parameterized in advance during the creation of the test by the lecturers, e.g. enabling the call of a preset homepage or the execution of a program.

Lecturers create a configuration file with the SEB software, in which all authorizations or restrictions for the respective test are defined. For the configuration it is possible to use templates which already have the corresponding configurations. The file is made available to students in the respective Moodle course for the exam.

Photographed or scanned handwritten examinations cannot be uploaded within the SEB. For this purpose, an additional period of time, e.g. 10 minutes, can be made available for uploading in the

respective Moodle course of the exam after completion of the exam. The file is named by the students with their Matrikel number and must be uploaded within the time period.

(3) Written exams with limited aids/without limitations of aids

a. Written examinations with limited aids (Open-Book)

Written online exams with the release of certain aids are also conducted via the SEB. In this case, the release of programs (e.g. Word) or the release of certain Internet pages is carried out. In addition, students can access their analogue lecture notes and call up their digital documents (e.g. release of PDF).

b. Written examinations without restrictions of aids (Open-Internet)

In the case of a test without any restrictions of tools (Open Internet), it is conceivable to dispense with proctoring and only carry out an identification check via BBB. In this case, the student's declaration of independence mentioned in point 2 can be switched to Moodle for confirmation before uploading the file.

Should students - for the reasons mentioned in point 2 - wish to take the online exam at the HSN, the following should be noted: Online exams which are designed as such (Moodle quiz etc.) are regularly held in PC labs together with the online exam. The exam is therefore the same.

If the content of the exam makes it possible to take it as a written exam in the conventional sense, this can also be made possible. However, this is only possible if content and structure are exactly the same. Otherwise, there is neither a voluntary nature nor equal opportunities and thus no legal certainty.

4 Exemplary description for the performance of online examinations

In the following, the implementation of the above-mentioned forms of examination is outlined by way of example.

4.1 Exemplary conduct of a written online examination

Written online exams without or with limited aids (open book) are conducted via the SEB. These can be designed as Moodle quizzes, for example, which also have automated correction functions: MCQ, assignment questions or free text fields with keywords can be checked automatically by Moodle.

The process is conceivable as follows:

- 1) At the beginning of each written examination, the presence and identity of the study participants must be verified and a technical test must be carried out. For this purpose, the students join the web conference assigned for the respective exam via BigBlueButton by the start of the exam at the latest.
- 2) There the proctors will carry out an identification check via webcam. The students hold their Thoska card in the camera until their identity has been confirmed by the proctors. If necessary, the student's identity card can be used for a doubtless identification and the card number can be noted.
- 3) In addition, it should be possible for the proctors to check the examination environment of the students by means of the webcam by panning the camera through the room. This should ensure that there are no other persons or aids in the room. During the entire course of the examination it must

be ensured that the lecturers and the lecturers who administer the examination can be reached by telephone. Each proctor will have his own web conference room with a maximum of 20 study ends for supervision.

4) After successful identification of all supervised examinees, the proctors will check the health and examinee ability of the students.

5) Before the actual examination is started, students are asked to take a speed test (<https://ilias.hs-nordhausen.de/speedtest/>) on the HSN server. Students are asked to make a screenshot (Windows + print) of the result and save it as a file. This will be used in the next step for testing the file upload.

6) Next, the proctors will give the students the password to start the online exam in the SEB in the video conference. The students start the exam environment with the SEB file they received in the forefield. The SEB automatically leads to the Moodle course of the respective exam.

7) There, students are first asked to upload the file of the speed test by entering their matriculation number. This way, a proper function of the upload can be tested simultaneously.

8) At this point, the proctors should again point out to the students that they should not leave the sight of the chamber during the examination. Students are asked to place their mobile phones in the visible area in front of the camera in order to avoid the toilet.

9) The exam will be activated on the Moodle course called up in the SEB at the specified time and the time for the exam will start running from then on. The SEB can only be completed by the students if the exam is "handed in" or cancelled.

10) At the end of the exam time the results are automatically saved and the exam is automatically closed.

11) Photographed or scanned handwritten exams can be uploaded within a period of time, e.g. 10 min in the respective Moodle course of the exam after the exam has ended. The file is named by the students with their matriculation number and must be uploaded within the time limit. If this is not done within the time limit, the exam is considered not taken - see point 2.

In the run-up to the exam, every student will have the opportunity to test the functions and the technically correct application of the SEB on his PC. There will be offers from the E-Team for this purpose.

4.2 Exemplary conduct of an oral online examination

Oral online exams can be conducted via the web conference platform BigBlueButton or webconf.hs-nordhausen.de.

The student(s) are loaded into the virtual examination room and the oral examination can be conducted like a normal oral examination.

In order to get an overview of the use of permitted or prohibited aids, the students briefly show their examination environment with their webcam.

The separate examination protocol for online oral examinations must be used accordingly. In addition - as will be noted in the protocol - the essential questions concerning the data protection declaration, the exam eligibility and the independent performance of the exam should be answered in writing via the chat function in BBB. The chat will be saved after each examination and subsequently handed over to the Examination Office together with the protocol (via e-mail).

Examiners and examinees must also be reachable by students via a telephone connection in order to enable an agreement on the further procedure in case of complications.

5 steps in the follow-up of an online examination

Immediately after completion of the exam, the results can be accessed by the examiners in the Moodle course. For tasks with an automated correction, the points achieved are displayed directly. For free text fields, points can be awarded directly online in Moodle using the "Manual Assessment" option. The manually awarded points are added by Moodle to any points from an automated correction and the overall results of all candidates are displayed in a summary table. This overview can then be forwarded to the examination office in the final step.

Examinations that are submitted via file upload can be downloaded by the lecturer as files.

After oral examinations, the corresponding protocol must be submitted to the Examinations Office together with the chat protocol (e.g. via e-mail).

6 Advice to students in the run-up to an online examination

You voluntarily take part in an online exam. Regulations for this can be found in the statutes on the handling of written and oral examinations in connection with the SARS-CoV-2 (Corona) pandemic.

In order to take part, you must know and accept that you can be seen and heard with sound and vision in your private rooms for the duration of the exam. This is a condition of participation in the exam, but cannot be made binding on you.

If you do not have the necessary technical equipment (webcam, microphone, a stable internet connection), it is possible to take the exam at the university - depending on the type of exam - in a PC laboratory or in a seminar room under supervision. This option is limited and depends on the respective room capacity at the time of the respective examination. The application must be made informally within the examination registration period.

All those who decide to take an online exam should test the functionality of the SEB in advance with the corresponding option provided.

A demo exam will be set up to test the functionality. You can call it up at any time and test the SEB. The demo exam can be used to test the various Moodle quizzes and file uploads.

For the duration of the test, it is recommended that you ensure that the Internet load on your part is minimized. The e-Team will give precise instructions on what to pay attention to in detail before the exams.

In addition, you should, as far as possible, take care not to be distracted or disturbed during the exam.