

WRITTEN ONLINE EXAMS

New Guidelines for Professors (May 2020)

In these guidelines, a method for managing written exams online is described and it can be used as an alternative to the [one already tested](#); however, please remember that, where possible, it is always suggested, as long as the exams are suspended, to convert the written exams into oral exams.

Here are the advantages of this new method: speeding up the exams, particularly in the initial ID-checking phase of the students; possibility to correct the tests faster; greater safety during the examination thanks to the use of the SEB (Safe Exam Browser) software; the management of exams within the new KIRO platform based on Moodle version 3.8.3.

The procedures for creating quizzes and questions, correcting writings and extracting the results, as well as operating the SEB software will be illustrated in tutorials that will allow teachers to become autonomous in the various stages of preparation, installation and configuration of SEB, administration and analysis of the data.

Finally, please note that to ensure a correct examination, it is considered important to empower students and ask for collaborative behavior.

The following paragraphs illustrate the hardware and software required and the various stages of the examination.

Online written exams require the hardware and software described below.

Hardware

- *Professors*: PC/Mac, with webcam and input audio, compatible with the software below indicated.
- *Students*: PC/Mac, with webcam and input audio, and a smartphone/tablet.

Software

- *Professors*: a video conferencing software that allows, for the entire duration of the test, the participation of a number of people greater than the number of students who will take the exam. The software must allow chat between the teacher and students, but not between the students themselves without being seen by the teacher. The software should allow you to record the teacher's desktop and audio (e.g. Zoom, GoogleMeet, Skype for Business). Then the SEB (Safe Exam Browser) software must be installed on the PC or Mac (https://safeexambrowser.org/download_en.html) configuring it according to the instructions on the page <http://idcd.unipv.it/esami-scritti-online>
- *Students*:
 - a) Install the Safe Exam Browser (SEB) software on your PC or Mac https://safeexambrowser.org/download_en.html
 - b) Install the video conferencing application indicated by the teacher (eg Zoom, GoogleMeet, Skype for Business, ...) on mobile / tablet.

For students who will have to write the answers on white sheets it is also necessary:

- c) Install the Moodle app on your mobile phone.
- d) Install a free software that allows you to scan your written work with your smartphone and transform it into a single pdf or jpg document. The Google Drive app natively offers this feature. Alternatively, we recommend installing Office Lens or CamScanner. These applications (and others similar) are available for free for Android and iOS.

Taking the online written test

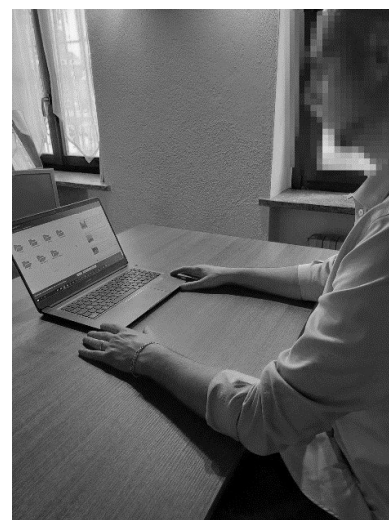
a) Before the test (considerably before)

Professor shall:

1. Activate the exam course on the <https://kirotesting.unipv.it> platform in the manner indicated on <http://idcd.unipv.it/esami-scritti-online/>.
2. Prepare the written exam in the desired form, following the tutorials and instructions available on <http://idcd.unipv.it/esami-scritti-online/>. You can prepare questions with multiple choice answers, true or false, numerical answer, open answer in the form of a composition or an appropriate combination of them, depending on the needs of the teacher. The questions can be entered in a random sequence for each student and in the case of multiple choice answers, the sequence of answers to a question can also be made random. The student will be able to answer the questions in the desired sequence. It is possible to include mathematical expressions (integrals, derivatives, limits, rotors, divergences, etc.) both in the questions and in the answers using the Kiro editor. If the answer requires writing particularly complex mathematical formula, it is advisable to have the answers written on white sheets in pen and have them uploaded to Kiro by following the instructions given in points c) and d) below.
3. Plan the meeting with the video conferencing software and communicate the related link to the students, inviting them to connect fifteen minutes before the starting time. In the case of written exams with a large number of students, it is advisable to share the surveillance among several teachers or collaborators since 25-30 students can be viewed for each screen. In this case it is convenient to divide the students into several groups, activate parallel videoconferencing sessions and communicate to each group the related link.
4. The teacher must communicate to the students that participation in the videoconference implies acceptance to be filmed. The shooting will be carried out only for the correct conduct of the examination, they will be accessible only to the members of the Exam Commission and to the dedicated technical staff. Registration will be canceled 5 days after the mark has been recorded.
5. Tell the students that they shall:
 - a. Install softwares above mentioned on page 1.
 - b. Arrange a room without other people and monitors; if it is structurally impossible to move a monitor, cover it so that it is not visible. The presence of other hardware (e.g. smartwatch, earphones, etc ...) in addition to that described on page 1 will not be allowed.
Students who take the exam written on white sheets will also have to:
 - c. Before the exam, try to produce a single file containing two or more photos with the mobile scanning software.
 - d. Have white sheets, a pen with a clearly visible line and any other material indicated by the teacher (e.g. ruler).
6. Tell the students the following rules:
 - If a student is surprised to copy or has an ethically incorrect behavior, his/her test will be canceled.
 - If a student leaves the desk/position before the end of the written test, his/her exam will be canceled.
 - The teacher can ask the student for explanations during the test (e.g. 'express the logical process').
7. Set the password to enter and to exit SEB through the config file, as explained on <http://idcd.unipv.it/esami-scritti-online/>.

b) Starting the exam

1. Start, at least fifteen minutes before the exam, the video conference and the desktop recording (eg start Zoom and click on the record button). Make sure that the students' microphones remain on during the test.
2. Verify that students are properly positioned in relation to their cell phone surveillance camera. The mobile phone camera must shoot the student sideways and the computer screen as shown in the image on the right side.
3. At the scheduled time, the teacher communicates the password to access the previously set SEB to the students (see point a) .7) and the exam begins.



c) During the exam in SEB.

1. In SEB students can answer questions but cannot access other software or browser from their PC/Mac.
2. During the SEB exam, the teacher supervises the students through the video conferencing software and answers any questions using chat or speaking.
3. During the exam, the teacher recognizes the students by comparing the student's photo that can be viewed by accessing the reserved area (Esse3) with the student's face that is captured by the cell phone camera.
4. During the test, the teacher can also ask the student to show the room with the mobile phone camera.
5. If the answers, even if only in part, are written in pen on white sheets, their recording takes place in the following ways:
 - if using Microsoft Windows, the written answer to each question must be filmed with the PC webcam and uploaded to Kiro directly in the space below the question.
 - if you using a Mac, the written answer to all the questions must be shown on the camera of the mobile phone. The student informs the teacher in chat and the teacher will verify the correct recording of the sheets by the videoconference software.
6. The test is timed and the students have a maximum time limit to answer all the questions, after which the exam will end and the answers uploaded to that moment will be kept valid.

d) Submission

1. If the answers are all given directly online on Kiro, via PC or Mac, once the last answer is completed, the student can communicate in chat to the teacher that s/he has finished. The teacher will provide him/her with the password via chat to exit SEB and the exam will be terminated.
2. If the answers, even partially, are carried out in pen on white sheets, once the last answer is completed or if the time available is over, the student receives the password to exit SEB. Only in this case, once s/he out of SEB must:
 - scan the text with the mobile phone and save the images in pdf format by naming the file SurnameName.pdf;
 - access KiroTesting through the Moodle App (already configured);
 - save the written test in the special section created by the teacher;
 - then the student receives a notification of successful submission.

This procedure is used to have the answers saved with high resolution in a pdf file that can be adequately used for correction. The video recording of the answers in SEB, illustrated in point c) .5,



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is used to check that the answers delivered in the pdf file coincide with those carried out in SEB.

3. The teacher verifies the correct receipt of the written document and dismisses the student.

Any additions / tutorials will be available on <http://idcd.unipv.it/esami-scritti-online/>