How to design and execute an online open book exam
CELT, 2020

0. Read the UT Framework for remote assessment:
    https://www.utwente.nl/nl/ces/sal/remote-assessment-for-teachers.pdf

1. Test design
    Make an overview linking the learning objectives and the questions, so that you can be sure that the test covers the learning objectives to be tested. For example in a test matrix – See CELT toolbox:
    https://www.utwente.nl/en/examination/toolbox-testdesign/designing-test
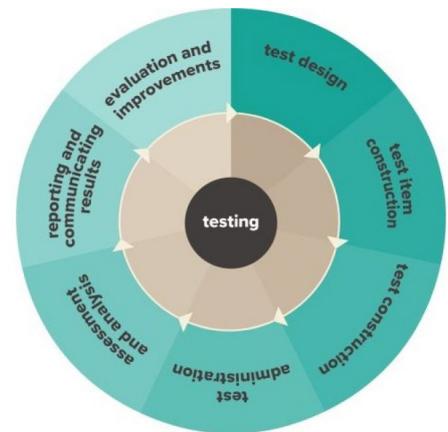
2. Test construction:
    *   Design appropriate questions for each learning objective. Questions in an open book exam almost always test higher order skills. Learning objectives with lower order skills are less suitable. It is important that students add arguments to the answer to the question. Preferably questions with multiple answer(s) (strategies) are also possible.
    *   An open question is characterized by:
        a) situation / context
        b) the question to be answered by the student
        c) possible conditions attached to the answer
    *   Tips for constructing questions:
        a. Website TELT :https://www.utwente.nl/en/telt/online-lectures/remote-assessment/online-examination/open-book-exam/
        b. Website Score (Dutch)
            https://score.hva.nl/docent/15_toetsvormen/Paginas/Casustoets.aspx
        c. A Guide for academics – open book exams
    *   Create multiple variations per test where you can vary with order of the questions, names, numbers, situations, etc.
    *   Because you can expect a lot of different answers, it is wise to create an answer model that is simple to use. Content expert assessors judge the final answers on their value. An answer model helps with this:
        o   Ask a fellow instructor to think along with you about the answer model beforehand.
        o   Additional option: Once you have viewed the first answers, you can use them to build and/or refine.
        o   Make sure that scores per question, norms (from points to assessment/ grade) and caesura are transparent.

- Add an integrity statement as an extra question to the test that each student has to sign in to validate their exam for summative use.

3. Organisation and administration
   - Set a start and end time, and make this explicit to the students beforehand.
   - Advise students to set up online in advance and check that everything works.
   - make sure to explicitly mention the allowed sources on the test itself.
   - Give at least one, but preferably a few sample questions to the students beforehand, so that they know what to expect.
   - More tips for taking this test online: https://www.utwente.nl/en/telt/online-lectures/remote-assessment/online-examination/open-book-exam/

4. Online assessment
   - Open book exams can be taken for example through a Canvas Quiz or through Remindo. As a teacher, you can also start a Canvas Conference or BlueJeans session at the same time where students can go if they have questions during the exam (Skype is not very suitable for this).
   - However, you should think carefully beforehand about exactly how you organize this session (you want to avoid students having contact with each other) and communicate clear rules.
   - Watching students via their webcams is an option (this can also be done via Canvas Conference or BlueJeans), but it takes a lot of bandwidth and can cause trouble.
   - Have students hand in the work in Canvas so you can check for plagiarism. This is only possible with typed documents, not with handwritten docs!

5. Analysis (Framework remote assessments University of Twente, March 2020)
   - Grades resulting from such a remote test are never automatically final grades. You as a teacher will have to judge whether the results, in your opinion are reliable enough to become a final grade that can be registered in Osiris.
   - We also advise that every remote test is accompanied by an additional oral exam (issued to a random selection of students) to check the reliability of the results. This can either be planned directly after the test or after grading.