

CS2100 Final Assessment

Instructions for Students

The Final Assessment for CS2100 will be held on **Saturday, 20 November 2021** from **9.00am to 11.00am**. This document contains the instructions and the expectations required from students who will be taking the Final Assessment.

Keep 8 am to 1 pm free on 20 November 2021 for administrative overheads, and to cater for the unlikely situation that something goes awry during the Final Assessment. If everything goes as planned, the Final Assessment will end by 11.15 am.

WE WILL NOT BE USING EXAMPLIFY. However, screen recordings are now MANDATORY, and you may receive heavy penalties and WILL be reported to the Undergraduate Office if you do not have a screen recording. See the Screen Recording section for instructions on submitting trial recordings, and your final recording.

1 Preparing for the Final Assessment

- 1.1. **ENSURE** that you are familiar with the **E-Exam SOP for Students** found [here](#). Login with your NUSNET account to access the web-page.
- 1.2. Ensure that you have the following available and running on a computer with internet access:
 - Web browser such as Firefox or Chrome, **only for asking the examiner questions and to submit your answer script. You are NOT ALLOWED to access any other online resources.**
 - The Zoom desktop application (Audio should be enabled so that you can hear your proctor, microphone should be muted and video disabled)
 - A PDF reader for the question paper, and possibly answer book. The answer book will be made available both in PDF and in WORD format.
 - Some way of uploading your final assessment answer script to LumiNUS if you are not using your phone to scan.
 - FFmpeg (recommended) or other tools for screen recording. **NOTE: SCREEN RECORDING IS MANDATORY AND STUDENTS WITHOUT SCREEN RECORDING MAY BE HEAVILY PENALISED AND WILL BE REPORTED TO THE UNDERGRADUATE OFFICE. NO EXCEPTIONS WILL BE MADE.**
- 1.3. Ensure that you have the following available on a mobile device with internet access:
 - A camera for recording your surroundings. **Your head, shoulders, hands, keyboard, mouse and screen must all be clearly visible. In addition, your background must be clearly visible, i.e., without any blurring or virtual backgrounds. Your proctor will tell you to shift your camera if it is not appropriately placed. If you do not comply, you will be shifted back to the Waiting Room and will be disqualified from the Final Assessment and receive ZERO (0) marks. In addition, you will be reported to the Undergraduate Office for further action.**
 - Zoom mobile application. Audio and microphone should be disabled.
 - Some way of uploading your final assessment answer script to LumiNUS if you are scanning using your phone.
- 1.4. Alternatively, you may use an external webcam or camera connected to your computer instead of a separate mobile device. However, you must still follow the rules; your head, shoulders, hands, keyboard, mouse, screen and background must be clearly visible.

- 1.5. The test is **PRINTED ONLY OPEN BOOK**. You are only allowed to access TEXTBOOKS, PRINTED NOTES, HANDWRITTEN NOTES, OR OTHER PRINTED RESOURCES. **USE OF SOFT COPIES IS NOT ALLOWED.**
- 1.6. You are allowed to use the Internet for Zoom, for asking the examiners questions and for submitting your answer scripts. **You are NOT ALLOWED to use the Internet for any other purpose, e.g., to look for online resources.**
- 1.7. You may use a PDF reader only to read the question paper, and you may use WORD only to answer the questions on the answer book. **You are NOT ALLOWED to use either software for viewing soft copies of any resources.** Use of any other application including calculators and spreadsheets on your computer are **strictly forbidden.**
- 1.8. You are only allowed one electronic calculator. **You are NOT ALLOWED to use the calculator on your computer, nor on your phone, nor any other device.**
- 1.9. **Only one monitor screen, one keyboard, and one mouse is allowed to be used. If you are connecting a WIRED keyboard or WIRED mouse to your laptop, ensure that your laptop keyboard and touch-pad are covered by a piece of paper throughout the assessment. Wireless keyboards and mice are NOT ALLOWED.**

No exception will be made. Please secure a WIRED keyboard and WIRED mouse NOW if necessary.

- 1.10. You are only allowed one electronic calculator, and the computer on which you are reading and answering the questions, and the device used for the proctoring camera. **NO OTHER DEVICES ARE ALLOWED. The usage of any other device constitutes cheating.**
- 1.11. **No wireless equipment is allowed to be used.** This includes wireless mice, wireless keyboards etc.
- 1.12. **No headphones or earphones are allowed to be used during the exam.**

2 Zoom Policies

- 2.1. Your Zoom details will be uploaded to your Gradebook under the item “Final Assessment Zoom Details”. Please check to ensure that you can access your respective Zoom meetings.
- 2.2. Please join your Zoom meeting by 8.15 am latest. You will be disqualified from the Final Assessment if you are not in the Zoom meeting by 9.00 am and will receive zero even if you submit your answers.

3 Screen Recording Policy

- 3.1 **SCREEN RECORDING IS MANDATORY. STUDENTS WITHOUT SCREEN RECORDINGS MAY BE PENALIZED HEAVILY AND WILL BE REPORTED TO THE UNDERGRADUATE OFFICE. NO EXCEPTION WILL BE MADE FOR ANY REASON.**
- 3.2 Instructions for using ffmpeg on Windows, MacOS and Linux can be found [here](#). You can also use other software like VLC, Quicktime, etc. Please familiarize yourself with how to record your screen before the Final Assessment by performing the trial screen recordings in the next point below.
- 3.3 **You are to perform TWO trial screen recordings on the computer you will be using for the Final Assessment, at your own time BEFORE 19 NOVEMBER, preferably spaced at least 3 days apart:**
 - 3.3.1 Each trial screen recording is to be at least 2.5 hours long.
 - 3.3.2 Upload the first screen recording to Multimedia->Trial Recording 1

3.3.3 Perform a second trial screen recording, again of at least 2.5 hours long.

3.3.4 Upload the second recording to Multimedia->Trial Recording 2

3.4 If you do not perform both trial recordings, you will be more severely penalized if you do not have a screen recording during the Final Assessment.

3.5 On the actual day of the Final Assessment, listen to the proctor for when to begin the recording. You must upload the recording to Multimedia->Final Assessment Screen Recording **by 20 November 2021, 12.59 pm.**

4 Q & A During the Final Assessment

4.1. Q&A will be over Google Forms and Google Sheets. The Google Forms can be found [here](#) and the link will also be given in the quiz, but the Google Sheets link is customized to you. Please obtain it from the Gradebook under the Final Assessment Google Sheet Details item.

4.2. Phrase your questions so that they can be answered with “Yes”, “No” or “No comment”. Ask only single questions at a time (i.e. do not ask questions with multiple parts). The answer will be posted in the Google Sheet.

4.3. If you get “Rephrase”, it means that you have phrased your question in a way that cannot be answered with a “yes” or “no”, or your question consists of multiple parts. You will need to rephrase your question appropriately. If you get a “No comment”, it can also mean that your question is already answered in the paper, or that we cannot answer the question.

4.4. Do not use any other device to communicate. If you do, you will be disqualified from the Final Assessment and receive 0 even if you submit your answers. You must not be seen to be using ANY OTHER DEVICE during the Final Assessment

5 Before 8.00 am

5.1. Ensure that you have fulfilled the equipment requirements and restrictions listed down in Section 1 **Preparing for the exam.**

5.2. Set up your recording camera and work environment. Ensure that the following can be seen by the video footage of your camera:

- The computer / monitor screen
- Your work environment, including the desk, and the writing materials being used
- Your upper body, inclusive of your head, shoulders and hands. This is to ensure the pair of hands shown belongs to you.
- Ensure that your background can be clearly seen. You are not allowed to blur your background nor are you allowed to use a virtual background.

5.3. If required, prepare the command needed to start the FFmpeg screen recording, or get your screen recording software ready.

5.4. Prepare your matriculation card or other photo identification (eg. Passport) **BEFORE** the exam. This will be required for taking attendance.

5.5. Prepare your notes, references and other writing materials.

5.6. Go to the washroom before the start of the Final Assessment. Once the Final Assessment has begun at 9 am, you will be allowed ONE bathroom break of at most FIVE (5) minutes. If you exceed these limits you will be disqualified from the Final Assessment and receive ZERO (0) marks.

6 From 8.15am to 8.50am

- 6.1. Enter the zoom meeting room assigned to you.
- 6.2. The proctor will take attendance and check your matriculation card or photo identification. While waiting for your name to be called, you may continue preparing your work environment if required.
- 6.3. If required, the proctor may ask you to adjust your camera or other equipment to ensure you adhere to the required setup. **If you ignore your proctor, you will be moved back to the waiting room and may be disqualified from the Final Assessment. You will receive ZERO (0) marks and will be reported to the Undergraduate Office.**
- 6.4. The Final Assessment Question Paper (in PDF format) and Answer Books (in PDF and DOCX format) will be made available on the LumiNUS Files tool, similar to the Assignments.
- 6.5. The proctor will give you the instruction to start the screen recording.
- 6.6. Await any further instructions from the proctor.
- 6.7. Visit the washroom and attend to any other needs.
- 6.8. You will be permitted ONE bathroom break of not more than FIVE (5) minutes during the Final Assessment. If you exceed this timing or two more than one break, you will be disqualified from the Final Assessment and receive ZERO marks.**

7 From 8.50am to 9.00am

- 7.1. All to get ready for the start of the exam.
- 7.2. The question paper and answer books should now be visible. The password will be announced verbally, in the Zoom chat.
- 7.3. In the event that LumiNUS goes down, the paper will be made available over both your official email address and <https://www.comp.nus.edu.sg/~cs2100>. Listen to instructions from your proctor and check your email for instructions.**

8 From 9.00am to 11.00am

- 8.1. At 9.00am, the proctor will release the password on the Zoom text chat, and also read out the password. This will signal the start of the 2 hours you have for the Final Assessment.
- 8.2. If you wish to print your answer book, you may do so at this time, WITHIN SIGHT OF YOUR PROCTORING CAMERA. That is, you must not leave the view of your proctoring camera to print the answer book. If you do you will be disqualified from the Final Assessment and receive ZERO (0) marks).
- 8.3. Your recording camera should be always switched on. You will receive ZERO (0) marks if your camera is switched off at any point in time during the assessment.**
- 8.4. Once the Final Assessment has started, you are allowed ONE bathroom break of not more than FIVE (5) minutes. If you take more than one break or are away for over five minutes, you will be disqualified from the Final Assessment and receive ZERO (0) marks.**
- 8.5. You are not allowed to communicate with anyone other than the proctor or other teaching staff during the Final Assessment. If you attempt to communicate with anyone, this will be treated as a case of cheating and disciplinary will be taken against you. This also includes anyone outside of the CS2100 module.**

- 8.6. If you require any clarification with regards to the Final Assessment questions, please use the Google Form provided to you. You should not ask your proctor.

9 Submission of Answers

- 9.1 At the end of the paper you are given SEVEN (7) minutes to upload your answers to your personal directory at Files->Final Assessment Submissions->Txx-><Your personal directory>
- 9.2 The folders will closer automatically after SEVEN (7) minutes and you will not be allowed to submit your answer script. This means that you will get ZERO (0) marks for your Final Assessment.
- 9.3 You may use your phone to scan your answers, in which case you may turn off your proctoring camera during this time if it is running on your phone. You must turn you proctoring camera back on after scanning your answers.
- 9.4 If you wish to use a scanner, it must be within sight of your proctoring camera. You CANNOT leave the view of your camera to scan. If you do you will be disqualified from the Final Assessment and receive ZERO (0) marks.

10 After the exam

- 10.1. Please wait for instructions from the Proctor on when you can leave the Zoom meeting.
- 10.2. After leaving the zoom session, you may stop the FFmpeg recording. Name your file with your matriculation number. Eg. A1234567B.mp4
- 10.3. **Submit the FFmpeg recording at Multimedia->Final Assessment Screen Recording by 20 November 2021 12.59 pm. IF YOU DO NOT SUBMIT A SCREEN RECORDING, YOU MAY RECEIVE STEEP PENALTIES IN YOUR MARKS AND WILL BE REPORTED TO THE UNDERGRADUATE OFFICE. NO EXCEPTIONS WILL BE MADE.**

11 Frequently Asked Questions

- 11.1. What happens if the recording stops or pauses halfway through the exam?
Ans: Attempt to resume or restart the recording. If required, you will upload multiple video files. However submission of screen recordings is MANDATORY and you may receive steep penalties and will be reported to the Undergraduate Office if you fail to upload your screen recordings.
- 11.2. Can I display my screen on an external monitor with the screen on the laptop off?
Ans: Yes if the monitor on the laptop is off at all times. To prevent problems such as the laptop screen turning on accidentally, keep the laptop lid closed or cover the screen physically.
- 11.3. What if I have more than one screen?
Ans: All additional screens must be switched off AND covered. Use paper, cloth etc to cover all additional screens. If any additional screens are left open, you are considered to be using them even if they appear to be powered off. Please cover ALL additional screens.
- 11.4. What does “print only open book” mean?
Ans: You may only refer to PRINTED reference materials like lecture notes, personal hand-written notes, tutorial answers, etc. NO SOFTCOPIES WILL BE ALLOWED.
- 11.5. If I am using my phone’s camera for proctoring, how do I use it to scan my answers?
Ans: You may turn off your proctoring camera during the period allocated for scanning. However

you should turn it back on once you've finished scanning and uploading your answer script.

11.6. Can I use a scanner in another room?

Ans: NO, you must not leave the view of your proctoring camera at any point in time. If you want to use a scanner, make sure it is in the view of the proctoring camera.

11.7. Can I use my tablet (e.g. iPad) to answer the questions?

Ans: NO. No other device except an electronic calculator may be used.

11.8. Can I use the camera on my laptop for proctoring?

Ans: NO, unless it allows you to capture your head, shoulders and hands.