

Guidelines for Designing Online Exams

This document provides general guidelines to help you design and deliver online exams in Canvas.

NOTE: For alternatives assessments to high stakes online exams, we recommend you spread out assessment weightings more evenly by assigning a variety of course assessments - homework, projects, term papers, student presentations/video presentations, peer evaluation, portfolios or oral exams. [Click here to learn more](#)

Suggested Canvas Tools

- **Canvas Quizzes:** If you plan to mostly have a mix of MCQs, T/F, fill-in the blank(s), a few open-ended responses or maybe even a file upload.
- **Canvas Assignments:** If you plan to mostly have written responses, drawing diagrams, or calculations that require one file upload.

Designing the online exam

Summary of Recommendations:

1. **Exam types:** Open or Closed Book
2. **Question types:** MC, Essay or Handwritten responses
3. **Chunk the exam into several parts**
4. **Add Academic Honor Code for online exams**
5. **Add a time buffer:** Large classes, file upload, tech issues or special needs
6. **Suggested set-up:** Canvas Quizzes and Canvas Assignments
7. **Canvas Grading:** Assign Weighting, Hide Grade and Post Grades

1) Exam types

In an online environment, a well-designed exam with questions/prompts that are practical scenario-based or application-based **is king**. Such design will **make it hard to google** the answer and will allow students to critically consolidate all concepts learned to answer the question. With that, we recommend having a nice pool of such quality questions to reduce the chances of peers or different sections getting the same questions.

a) Open book

Most online exams would likely be open book. If questions are primarily practical application-based or scenario based, having access to notes may not help anyway since they will need to connect their understanding across chapters. You can consider MCQs or a timed essay-based question run through Turnitin. In both cases, a strict but reasonable time limit is suggested, especially not too much time that students try to google answers. The time given in the online exam and traditional exam should be similar.

b) Closed book

It is challenging to make an online exam truly closed book as it's hard to guarantee students are NOT accessing outside resources. To reduce cheating, the exam should have well-designed questions that are scenario-based, which require students to apply what they learned across chapters, state justification for solutions, interpretation of diagrams or drawing of concept maps to show their understanding. A stricter time limit for MCQs or a strict timed essay-based question run through Turnitin will likely reduce the chances of cheating. If you'd like to monitor students live, suggest live proctoring using Zoom (see '[Delivering the online exam](#)' section at the end of this document).

2) Question types (MC, Essay, or Handwritten responses)

a) [MC, T/F, Fill-in the blank, Fill-in multiple blanks, File Upload](#)

- Suggested tool: **Canvas Quizzes**
- First, create a question pool using Canvas Question Groups to [SHUFFLE QUESTIONS](#), which will reduce chances students get the same question and will reduce chances of collusion. You can also choose to [SHUFFLE OPTIONS](#) in settings.
- Create **multiple versions** of MCQs and [assign to different lecture sections](#)
- Create **MC or fill in the blank with images** to better illustrate the concepts.
- To reduce cheating, try to make questions challenging so students can't easily google the answer:
 - Create more application-based, scenario-based questions, or [concept map](#) drawings that require students to consolidate concepts across multiple chapters. See reference for [Sample Map Rubric](#)
 - Include questions related to examples/elaboration/case studies presented in lectures
 - Include discussion points from in-class case study discussions
 - For calculations, include formula questions, which require students to input a number. Consider the use of variables so that different students will get the questions with different parameters, and therefore different answers. Click [here](#) to learn more.

Click [here](#) for tips on writing good MC exams and [here](#) for a Sample of Canvas Question Types

- **(Settings) Shuffle Options for each question:** Not applicable for options that include 'None of the above' or 'All of the above'. Suggest no letter/number tags for options, e.g., a. __, b. __, c. __ Click [here](#) to learn more.
- **(Settings) Show One Question at a time (and Lock Questions after Answering):** Apart from randomizing questions using the Question Group, set the quiz to 'show one question at a time'.
 - **Show one question at a time (Recommended):** This way students are likely to work on different questions at different times. Click [here](#) to learn more.
 - **Lock Questions after Answering (Handle with Extreme Care):** This is a sub-setting under **Show one question at a time**. Restricting students so they cannot go back to previous questions after they have answered may reduce cheating. However, students generally **do not like** not being able to go back to change or review their answers, especially if an idea came to them while answering another question. If you choose to move forward with this setting to fit your situation, we recommend you **manage students' expectations** by informing them of this setting well in advance. Offer a practice quiz with these settings in place, so they know what to expect and how to better study for the exam under such exam conditions.

b) [Essay type questions](#)

- Suggested tools: **Canvas Assignments** or **Canvas Quizzes**
- Should always specify the word-limit for essay type questions
- If using **Canvas Assignments:** Enable "Turnitin" to [check for similarity](#)
- If using **Canvas Quizzes:** [Add Essay Question Type](#)

c) [Handwritten Diagram/Calculation Questions](#)

- Suggested tools: **Canvas Assignments** or **Canvas Quizzes**
- Instructors need to ensure that the question type(s) selected is/are supported by Canvas ([Canvas Quiz Question Types](#))
- If using **Canvas Quizzes** to upload a file, check [File Upload Type](#)
- Hand-written: Students need to take pictures of their papers and convert to PDF, email the file to themselves, download file on desktop/laptop, rename file with student name and SID and submit to Canvas Assignments/Canvas Quizzes. To convert pictures to one PDF file, students can use apps like Microsoft Lens. iPhone users can also use their [Notes App](#) > **Camera** > **Scan Docs** > **email (pdf)**
 - [Microsoft Lens for Apple](#) | [Microsoft Lens for Android](#) | [More about Microsoft Lens](#)

3) Chunk the exam into several parts

- Instructor may consider dividing the exam into several parts to have better control of students' progress and to allow toilet breaks in between parts. Some examples:
 - **In Batches:** Divide the exam questions into several batches. Release the next batch of questions after all students submit a batch of questions
 - **By Question Type:** For exams with multiple question types (e.g., MCQ + Essay questions), students submit MCQs before receiving essay questions

4) Add Academic Honor Code for online exams

- **Why:** Students are expected to observe and uphold the highest standards of academic integrity and honesty in all the work they do throughout their program of study.
- **How:** Students must CONFIRM the Honor Code Statements before the exam starts. You may want to start the exam session 15 minutes earlier, add a 15-minute buffer to ensure all students submit their statements before the exam starts or have students complete the statements before the exam day.
- **Download** the Canvas Honor Code file along with instructions [here](#) for how to set up the module in Canvas.

5) Add a time buffer for large classes, file uploads, tech issues or special needs

- **Tech Issues for Large Classes:** Publish the exam several minutes before the exam start time to avoid sudden increase of network traffic in Canvas at the beginning of the exam. This is particularly important for large classes with hundreds of students.
- **For File Upload:** When setting up the exam Due Date and Due Time, suggest allowing ~10-20 mins buffer (depending on the exam questions). Students may need extra time to upload their work for submission compared to the traditional exams, especially for hand-written exams. The buffer may also account for potential tech issues when submitting their work.
- **For Special Needs:** Students may also have special needs that require extra time compared to the rest of the class. This should be communicated BEFORE the exam with a valid justification. If a student has special needs and requires extra time:
 - **Canvas Quizzes (With a Time Limit):** In the Assign Section, +Add the individual student(s) with new Available Date + Time, and Due Date + Time. Publish the Exam > Moderate the Quiz > Add Extra Time. This should be done BEFORE students start the Exam. *(See instructions in Section 6a below)*
 - **Canvas Assignments:** In the Assign Section, simply 'Add' the individual student(s) to the Assignment with the new dates and time. Click [here](#) to see how to assign the same Exam with different due dates and times to individual students.

The next section will walk you through Suggested Settings for Canvas Quizzes and then Canvas Assignments.

6) Suggested set-up for Canvas Quizzes and Canvas Assignments

a) Canvas Quizzes Settings

- [Create a New Quiz](#)

Step 1: Basic Quiz Settings for Canvas Classic Quiz

Suggested Settings:

- ✓ **Shuffle Answers:** Answer Options will be randomly shuffled for each question. If selected, remove all of the above/none of the above/a.___, b.___, c. ___
 - ✓ **Add 'Time Limit'**, so students can see the timer countdown as they take the exam. The Time Limit you set should also include the buffer of 10-20 mins for tech issues or file uploads, depending on the question types in the exam.
 - ✗ **Do Not Select 'Allow Multiple Attempts' or students will be able to resubmit the exam again**
 - ✗ **Do Not Select 'Let students see their quiz responses'.** Leaving this unselected will make sure scores are hidden after students submit their exam. You can release these scores later by 'Post Grade'
 - ✓ **Select 'Show one question at a time'** to decrease chances of students working on the same question
- ⚠ **HANDLE WITH CARE: 'Lock question after answering'.** If checked, students can't go back to review questions before submitting. They DO NOT LIKE this setting. Let students know beforehand and give practice quiz with this setting before exam.

The image shows a screenshot of the Canvas Quiz Settings interface with several annotations:

- 1. Select Graded Quiz:** Points to the 'Graded Quiz' dropdown menu under 'Quiz Type'.
- 2. Select the Assignment Group created for Exam:** Points to the 'Final Exam' dropdown menu under 'Assignment Group'. A note below says '(See links above for how to do this)'.
- 3. Select Shuffle Answers:** Points to the checked 'Shuffle Answers' checkbox. A note says 'Note: Remove a._ b._ c._ from options and NOT applicable to All of the above/None of the above'.
- 4. Suggest adding 10 - 20 minutes buffer:** Points to the 'Time Limit' field set to '90 Minutes'. A note says '(1.5-hour exam = 1hr. 20mins with 10mins buffer)'.
- DO NOT CHECK THESE TWO OPTIONS!** A red bracket points to the 'Allow Multiple Attempts' and 'Let Students See Their Quiz Responses (Marked in Student Feedback)' checkboxes, which are both unchecked.
- WARNING:** A red box contains the text: 'DO NOT SELECT Allow Multiple Attempts' and 'DO NOT SELECT Let Students See their Quiz Responses (to keep scores hidden)'.
- 5. Select "Show one question at a time":** Points to the checked 'Show one question at a time' checkbox. A note says 'to reduce chances of cheating'.
- Optional:** A yellow box points to the unchecked 'Lock questions after answering' checkbox. The text says: 'If selected, it won't allow students to go back after they have answered a question. Students usually don't like locked questions because they may want to review and make changes.'
- Quiz Restrictions:** The 'Require an access code' checkbox is unchecked.

Step 2: Input ALL Dates AND Times with Assign to

1. **Assign to 'Everyone'** in the course; or **delete 'Everyone'** to pick a section, e.g. **'L1'**
2. **Enter the Due Date & Time:** When the **exam is due**. This time should also *include the time buffer for tech issues/file uploads*
3. **Available Date & Time:** When students can *access* the instructions and *start the exam*. For a big class, may want to start the exam a bit earlier to ensure everyone has access
4. **Until Date & Time:** When the *exam closes*, and students will not be able to access it anymore. Date should *match Due Date & Time above*, unless you allow late submissions.

+Add Assign for other sections, e.g. **'L2'** or **individual student(s)**

The screenshot shows the 'Assign to' form in Canvas. It includes fields for 'Assign to', 'Due', 'Available from', and 'Until'. Red callouts with numbers 1 through 5 provide instructions: 1. Assign to Everyone or L1; 2. Due Date & Time: Will auto save and submit selected answers (1.5-hour exam = 1hr. 20mins exam with 10mins buffer); 3. Access Exam: Date & Time students can start; 4. Exam Item no longer accessible: Should match Due Date & Time above; 5. Add to Assign to L2 with different due dates & time.

NOTE: If an Individual student can take the exam at a different time with the **SAME AMOUNT OF TIME** allocated to everyone else, click **+Add** to add a new time for that student. Click [here](#) to know more.

Step 3: Give more time for a student with Special Needs

(Do this BEFORE the Exam)

1. **'Publish'** the Exam (Don't worry students won't be able to see the exam until the **'Available Date'**)
2. **Click 'Moderate this Quiz'** on top right corner of the Canvas Quiz
3. **Select 'Student Name'**
4. **Click the 'Pen Icon'**
5. **Enter 'Extra Time or Extra Attempts'**
6. **Click 'Save'**

Click [here](#) to know more

The screenshot shows the 'Moderate Quiz' interface. It includes a 'Published' button (1), a 'Moderate This Quiz' button (2), a list of students (3), a 'Pen Icon' (4), a field for 'Extra time on every attempt' (5) set to 40 minutes, and a 'Save' button (6).

Next, there may be 'what if' situations that happen DURING the exam...

What if you need to EXTEND the time DURING the exam FOR THE WHOLE CLASS?

YES, YOU CAN!

If the exam started and you would like to add time while the exam is in progress, click to **'Edit'** the quiz live:

1. Increase the **'Time Limit'** (will automatically add more time to the timer for everyone)
2. Change the **'Due Date & Time'**
3. Change the **'Until Date & Time'** to match new **'Time Limit'**

Quiz Type: Graded Quiz

Assignment Group: Final Exam

Options

- Shuffle Answers
- Time Limit: 90 Minutes **1** Add more time

Assign to: Everyone

Due: Mar 30 1pm **2** Add more time here

Available from: Mar 30 11:30am

Until: Mar 30 1pm **3** Add more time here

+ Add

What if you need to EXTEND the time DURING the exam FOR ONE STUDENT?

YES, YOU CAN!

1. Go to **'Moderate This Quiz'** on the right of the quiz page.
2. Search for the **'Student Name'**
3. At the **'Time'** column it should show the countdown time of the time remaining.
4. Click on **'Clock Icon'** > Enter the extra time in minutes either from **NOW** or the **current end time** SET for the quiz > Click **'Extend Time'**

Click [here](#) to know more

Extend Quiz Time

You can give this student extra time on their current quiz attempt. How much time would you like to give them?

Started: Mar 13 at 3:54pm
Ending: Mar 13 at 4:24pm

End the quiz [] minutes from [now]

Maximum of 1440 minutes (24 hours)

Cancel Extend Time

1 Moderate This Quiz

SpeedGrader™

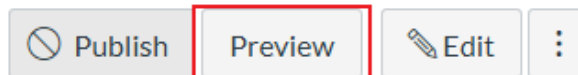
Now you can add Questions to your Question Bank!

- ✓ Click [here](#) to View **MCQ Tips** and [here](#) if you need help with **Adding Quiz Questions**
- ✓ Click [here](#) to see **Sample Canvas Question Types and Exam Instructions for students**

AFTER YOU ADD EXAM QUESTIONS, CLICK 'SAVE', 'PREVIEW' TO TEST THE EXAM SETTINGS & THEN 'PUBLISH'

Step 1: Preview Exam

Click the grey 'Preview' next to the Edit button.
The preview will let you **try out the quiz**.



NOTE: After you click submit, it will always display the feedback and correct answers for your preview, because you are a teacher.

! Correct answers are hidden.

The later 'Grade' section walk-through will show you how to 'hide scores' from students view.

Score for this quiz: **6.5** out of 13 *
Submitted Mar 13 at 8:58pm
This attempt took 2 minutes.

Step 2: Preview again

To preview again, click on the "Preview the Quiz Again" on the right panel.

Related Items

Moderate This Quiz

SpeedGrader™

Keep Editing This Quiz

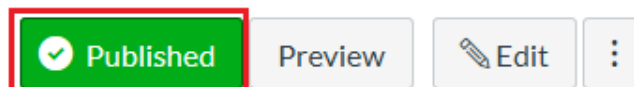
Submission Details:

Time: less than 1 minute

[Preview the Quiz Again](#)

Step 3: Publish

After Preview, remember to click 'Publish' when the quiz is ready!



b) Canvas Assignment Settings

- [Create a New Assignment](#)

Step 1: Basic Settings	Step 2: Enable Turnitin to check for similarities in the text

Step 3: Assign and Enter Dates and Times

Assign to

- **Assign to 'Everyone'** in the course; or delete 'Everyone' to pick a section, e.g. 'L1'
- **Enter the Due Date & Time (include time buffer):** When the exam is due
- **Available Date & Time:** When students can access the instructions and **start** the exam.
- **Until Date & Time:** When the **exam closes**, and students will not be able to access it anymore. Date should **match Due Date & Time above**, unless you allow late submissions.
Late submissions: Add more time in UNTIL, so students can still submit but will be marked LATE. Let students know how late submissions will impact grade. EX: **Deduct 10% for every 1 min**
- **+Add Assign for other sections**, e.g. 'L2' or individual student(s)

NOTE: If an Individual student can take the exam at a different date and time, click +Add to customize a new time for that student. [Click here](#) to find out more info about this feature.

Now set-up is complete!

Add Instructions/Files, 'Preview' the student experience and 'Publish' when ready!

- ✓ Click [here](#) to set-up the **Honor Code Module** and **Exam module**

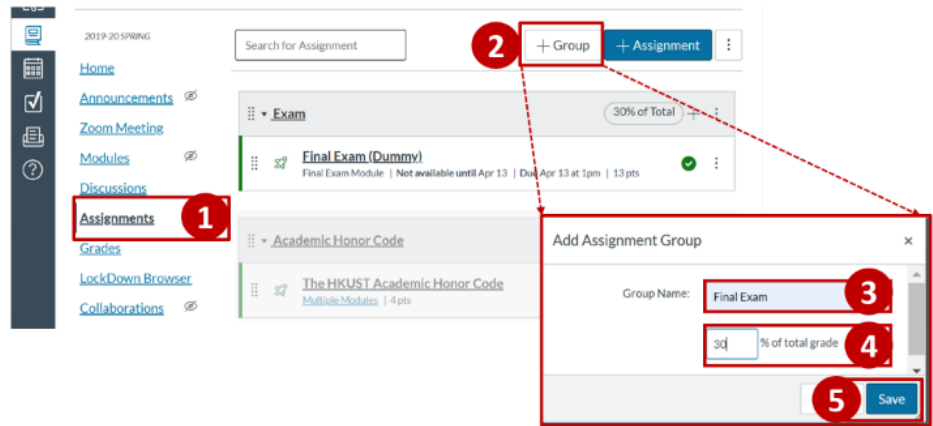
7) Canvas Grading: Assign Weighting, Hide Grades and Post Grades (Canvas Quizzes & Canvas Assignments)

We recommend you [Create an Assignment Group](#) for this exam and let Canvas [Assign Weighting](#) for all assessments

Instructions: Assign Weighting

Step 1: Add Assignment Group (Like an Assessment Group)

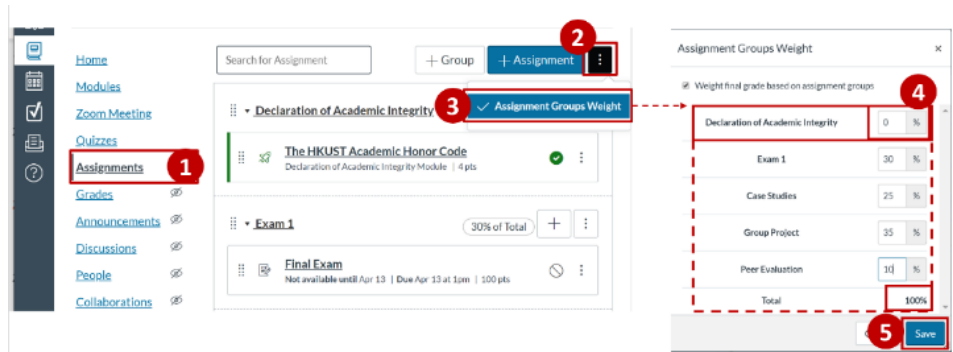
1. On left menu, click **'Assignments'**
2. Click **'+Group'**
3. Change **'Group Name'** to Exam, Case Studies, etc.
4. **'Allocate %'** for Exam



Step 2: Add Weighting to Groups

1. **'Assignments'** tab
2. Click **'3 dots'**
3. Select **'Assignment Groups Weight'**
4. Enter weighting % for all assignment groups

Canvas will allocate a final grade based on the weighting



Assignment Group	Weight
Declaration of Academic Integrity	0 %
Exam 1	30 %
Case Studies	25 %
Group Project	35 %
Peer Evaluation	10 %
Total	100%

Now that you have assigned weighting to the exam and other assessments, the next section will show you how to **'Hide Grades'** so students will not be able to see their score after they finish the exam and will not know when you are grading them. After the exam, when you are finished with grading, you can **'Post Grades'** and an automatic Canvas notification will be sent to students to let them know you have released grades. If you don't 'Post Grades', grades will remain hidden from students. More info [here](#)

Instructions: Hide Grades

Step 1: Change 'Grade Posting Policy' Setting to 'Manually' to Hide Grades

PLEASE MAKE SURE YOU PUBLISH THE EXAM FIRST!
(Don't worry students won't be able to see or access it before the available date)

1. Click the '**3 dots**' next to your exam item
2. Select '**Grade Posting Policy**'
3. Select '**Manually**'
4. Click '**Save**'

Students will NOT be able to see their score after the exam

The screenshot shows the Canvas LMS interface for an exam item. The 'Grade Posting Policy' is set to 'Manually'. The 'Save' button is highlighted. The interface includes a table of student names and their scores, and a sidebar with navigation options.

Student Name	The HKUST Academi... Out of 4	CEI1234 Mid-Term Ex... Out of 2 MANUAL
Hei STUDENTSON	-	-
Jine STUDENTSON	-	-
Kevin STUDENTSON	-	-
King STUDENTSON	-	-
Ling STUDENTSON	-	-
Min STUDENTSON	-	-
Ming STUDENTSON	-	-
Sing STUDENTSON	-	-
STUDENTSON, Tao	-	-
Wai STUDENTSON	-	-
Test Student	4	2

Step 2: AFTER Exam, 'Post Grades'

After your grades are finalized and you are ready to show grades to students:

1. Click the '**3 dots**'
2. Select '**Post Grades**'

Students will get an automatic Canvas notification grades are released

The screenshot shows the 'Grade Posting Policy' settings for an exam item. The 'Post Grades' option is selected. The 'Save' button is highlighted.

You're all set!

- ✓ Click [here](#) to set-up the **Honor Code Module** and **Exam module**

The hard part is done, the next major part is to coordinate the logistics for Delivering the Online Exam. The logistics is an equally important step to help manage students' expectations (and TAs), so there are no surprises, less chance of delays and to let students know exam conditions so they know how to better study for it.

Delivering the Online Exam

Click the options below to view the Good Practices for BEFORE, DURING and AFTER conducting Online Exams:

- [Live Online Proctoring Options for High Stake Exams](#)
- [Online Exams without Live Proctoring](#)