# Options for Proctoring Using Zoom

## **Exams Taken by Hand**

### Instructor Requirements:

* Create digital version of the exam
* Create answer sheet for students (optional)
* Stable internet connection
* Schedule Zoom meeting
* Set up submission area in Moodle with correct settings
* Prevent private chat in Zoom

### Student Requirements:

* Join Zoom meeting on a device with camera
* Stable internet connection
* Have scanner/iPhone/scanning app
* Know how to transfer files from their device to computer
* Have paper or printed answer sheet

### Instructor Steps:

1. Create a digital version of the exam.
   * **Note**: it would be best to limit to 1 or 2 pages.
2. Create an answer sheet for students to print prior to the exam (optional).
3. Instructor sets up “Assignment” activity in Moodle (see [Adding an Assignment](https://moodle.umt.edu/course/view.php?id=28752#section-4)).
   * Give appropriate name and description.
   * Disable “Due Date.”
   * “Availability” options:
     + Set open date/time in the “Allow submissions from” section.
     + Enable “Cut-off date” and enter date/time to close exam.
       - **Note**: consider extending the cut-off time to account for the students transferring and submitting their files.
   * **“**Grade” options:
     + Give exam the appropriate point value.
     + If grading as a percentage, use 100 points.
   * Save.
4. Schedule Zoom meeting and distribute the link for exam time to students.
5. Start Zoom meeting a little before exam start time.
6. Change Zoom “Chat” settings so that participants can only chat with the host.
   * Chat > … > Host only (see [Controlling Chat Access](https://support.zoom.us/hc/en-us/articles/115004809306-Controlling-and-Disabling-In-Meeting-Chat#h_d9a04597-0138-4fb9-86cd-81cc4c68b21f))
7. Restrict students from unmuting themselves (optional, but suggested).
   * Manage Participants > More > Uncheck “Allow participants to unmute themselves”) (see [Controls for Managing Participants](https://support.zoom.us/hc/en-us/articles/115005759423-Managing-participants-in-a-meeting#h_135deff0-a391-4162-861b-204c020febb3)).
   * If they have questions, they can ask the instructor in the Chat.
8. Ask that all participants turn their video on.
9. Switch the Zoom view to “Gallery View.”
   * Select the “Speaker View” button in the upper left of the video frame to toggle to the gallery view (see [Displaying Participants in Gallery View](https://support.zoom.us/hc/en-us/articles/201362323-Changing-the-video-layout-Active-Speaker-View-and-Gallery-View-)).
10. Explain exam expectations.
11. Tell students where to find the exam on Moodle.
12. To start the exam, instructor shares screen to display the digital version of the exam (see [Screen Sharing](https://moodle.umt.edu/mod/book/view.php?id=1498190&chapterid=82953)).
13. Monitor students’ video while taking the exam.

### Student Steps:

1. Sign into Moodle a few minutes before the exam time.
2. Join the Zoom meeting.
3. Turn on your camera.
4. Use the instructor’s shared screen to locate the questions.
5. Hand-write your exam on paper or the answer sheet that was provided.
6. At the end of the exam, take a photo or scan of the completed exam.
   * Create [scan with Apple Notes app](https://support.apple.com/en-us/HT210336).
   * OR create scan in downloaded [CamScanner app](https://play.google.com/store/apps/details?id=com.intsig.camscanner&hl=en_US).
7. Email the .pdf scan to yourself.
   * OR use Moodle mobile app to upload documents.
8. Submit document to appropriate “Assignment” area in Moodle.

### Drawbacks:

* The exam must be able to fit on one screen (students may work at different paces, so they will all need to be able to see all of the questions at the same time).
* Students must be able to read the questions clearly.
* Scanning and uploading the documents can be burdensome for students.
* Students may be unorganized with their answers if an answer sheet is not provided.
* Providing an answer sheet will require that students print it off ahead of time.
* Instructor cannot hear what students are doing during the test. Having all of the student’s audio on will be loud and cause major distraction.
* Accessibility concerns.
* There are still ways to cheat:
  + Student could be using their phone or other device outside of the webcam’s view.
  + No way to know what a student is looking at on their screen.

## **Exams Taken on the Computer (Option #1)**

This option uses Moodle quizzes and Zoom breakout rooms.

### Instructor Requirements:

* Schedule Zoom meeting
* Set up an exam in Moodle with correct settings
* Set up Zoom breakout rooms
* Requires updated version of Zoom

### Student Requirements:

* Join Zoom meeting
* Have computer with webcam and audio

### Instructor Steps:

1. Set up questions in the Moodle Question Bank (see [Building the Question Bank](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78835) and [Creating Questions](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78838)).
2. Setup a “Quiz” activity in Moodle (see [Quiz Settings](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78834))
   * Give appropriate name and description
   * “Availability” options:
     + Set open date/time
     + Set close date/time
     + Set a time limit
   * “Extra restrictions on attempts” options:
     + Enter a password for the exam in the “Require password” section
   * Save
3. Import questions from Question Bank and assign a max grade (see [Adding Questions to a Quiz](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78837)).
4. Schedule Zoom meeting and distribute the link for the exam time to students.
5. Start Zoom meeting a little before exam time.
6. Set expectations for students:
   * Tell students where to find the exam on Moodle.
   * Ask that they share their entire desktop and have video/audio on when they are in the breakout room.
   * Give students the password to access the exam.
   * Tell them to start the exam after they have entered their breakout room and complete these steps.
7. Create breakout rooms (see [Managing Breakout Rooms](https://support.zoom.us/hc/en-us/articles/206476313-Managing-Breakout-Rooms)).
   * Assign one student per room.
   * Restrict students from entering back into the main session.
     + Breakout Rooms > Options > Uncheck “Allow participants to return to the main session at any time”
   * Launch breakout rooms.
8. Monitor students while taking the exam by going in and out of the breakout rooms.

### Student Steps:

1. Sign into Moodle a few minutes before the exam start time.
2. Join the Zoom meeting.
3. Once in a breakout room:
   * Turn camera on.
   * Turn video on.
   * Share desktop.
     + - **Note**: It’s important that the entire desktop is shared, or students can be looking at windows that are not being shared.
4. Access the exam in Moodle.
5. Submit exam on Moodle when finished.

### Drawbacks:

* The breakout rooms cannot be set ahead of time (unless each student has an account and the instructor has the email associated with their account).
* Will not work for classes over 50 people. Large classes would need to be broken up into different exam times.
* Breakout rooms can be slow to move around in. Could be clunky for the instructor.
* The only way for the instructor to communicate with all students at once is to broadcast a message. This could be easily missed.
* The instructor would need to assign their TAs to each room to allow these individuals to move between the rooms.
* There are still ways to cheat:
  + Student could be using their phone or other device outside of the camera’s view
  + Student can see when they are/aren’t being monitored.

## **Exams Taken on the Computer (Option #2)**

This option uses a typed document and Zoom breakout rooms.

### Instructor Requirements:

* Schedule Zoom meeting
* Set up Quiz in Moodle with correct settings
* Set up an Assignment in Moodle with correct settings
* Set up Zoom breakout rooms
* Requires updated version of Zoom

### Student Requirements:

* Join Zoom meeting
* Have a word processor
* Have computer with webcam and audio

### Instructor Steps:

1. Create a digital version of the exam that will be distributed to students.
2. Setup a “Quiz” activity in Moodle (see [Quiz Settings](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78834)).
   * Give appropriate name and description.
   * “Availability” options:
     + Set open date/time
     + Set close date/time
   * “Extra restrictions on attempts” options:
     + Enter a password for the exam in the “Require password” section.
   * “Activity completion” options:
     + Change “Completion tracking” to “Show activity as complete when conditions are met.”
     + Check “Student must view this activity to complete it.”
       - **Note**: Completion tracking must be enabled in the overall course settings (see [Course Settings](https://moodle.umt.edu/mod/book/view.php?id=1388791&chapterid=78814)).
   * Save.
3. Add a new question by using the “Edit Quiz” option (see [Adding Questions to a Quiz](https://moodle.umt.edu/mod/book/view.php?id=1388797&chapterid=78837)).
   * Create an academic honesty statement.
   * OR create a question that confirms that they are ready to take the exam.
4. Instructor sets up “Assignment” activity in Moodle (see [Adding an Assignment](https://moodle.umt.edu/course/view.php?id=28752#section-4)).
   * Give appropriate name and description.
   * Disable “Due Date.”
   * “Availability” options:
     + Set open date/time in the “Allow submissions from” section.
     + Enable “Cut-off date” and enter date/time to close exam.
       - **Note**: consider extending the cut-off time to account for students submitting their files.
   * **“**Grade” options:
     + Give exam the appropriate point value.
     + If grading as a percentage, use 100 points.
   * “Common module settings” options:
     + Upload digital version of the exam for the students to download.
   * “Restrict access” options:
     + “Add restriction” > “Activity Completion” > Choose the Quiz activity you just set up.
   * Save.
5. Schedule Zoom meeting and distribute the link for the exam time to students.
6. Start Zoom meeting a little before exam time.
7. Set expectations for students:
   * Tell students where to find the exam on Moodle.
   * Give students the quiz password.
   * Have students complete the quiz question and submit it. This will open the assignment where they can access/download the quiz document.
   * Ask that they share their entire desktop and have video/audio on when they are in the breakout room.
   * Tell them to start the exam after they have entered their breakout room and complete these steps.
8. Create breakout rooms (see [Managing Breakout Rooms](https://support.zoom.us/hc/en-us/articles/206476313-Managing-Breakout-Rooms)).
   * Assign one student per room.
   * Restrict students from entering back into the main session.
     + Breakout Rooms > Options > Uncheck “Allow participants to return to the main session at any time”
   * Launch breakout rooms.
9. Monitor students while taking the exam by going in and out of the breakout rooms.

### Student Steps:

1. Sign into Moodle a few minutes before the exam start time.
2. Join the Zoom meeting.
3. Enter the quiz password when directed, complete the question, and submit the quiz.
4. Once in a breakout room:
   * Turn camera on.
   * Turn video on.
   * Share desktop.
     + - **Note**: It’s important that the entire desktop is shared, or students can be looking at windows that are not being shared.
5. Download the exam from the assignment on Moodle.
6. Submit exam to assignment on Moodle when finished.

### Drawbacks:

* More work to set up. Assignments cannot be password protected, so a password protected quiz that opens the assignment must be created.
* Students will have a copy of the exam, so it could be distributed. The exam should only be used one time in that form.
* The breakout rooms cannot be set ahead of time (unless each student has an account and the instructor has the email associated with their account).
* Will not work for classes over 50 people. Large classes would need to be broken up into different exam times.
* Breakout rooms can be slow to move around in. Could be clunky for the instructor.
* The only way for the instructor to communicate with all students at once is to broadcast a message. This could be easily missed.
* The instructor would need to assign their TAs to each room to allow these individuals to move between the rooms.
* There are still ways to cheat:
  + Student could be using their phone or other device outside of the camera’s view.
  + Student can see when they are/aren’t being monitored.

## **Pop Quizzes**

### Instructor Requirements:

* Schedule Zoom meeting with registration
* Set up polling questions
* Requires updated version of Zoom

### Student Requirements:

* Join and participate in Zoom meeting

### Instructor Steps:

1. Set up registration in your meeting settings.
2. Set up questions in the meeting Polls.
3. Start meeting.
4. Change Zoom “Chat” setting so that participants can only chat with the Host
   * Chat > … > Host only
5. Launch polls randomly throughout the lecture.
6. Give students a limited time to answer the question.
7. After the lecture, download the poll results and assign points.

### Student Steps:

1. Join the Zoom meeting on any device
2. Participate in polls when they are launched

### Drawbacks:

* Requires meeting registration.
* Limited number of poll questions per meeting.
* Multiple/single choice questions only.
* Grading could be very manual and time-consuming.
* Students can still communicate via other methods during the class period.