

## e-Assessment options and procedures

January / February 2021

There are 3 broad options for conducting e-assessments during the upcoming examination period.

1. Invigilation via MS Teams
2. Proctoring via Respondus Lockdown Browser & Monitor (Moodle-based assessments)
3. Lockdown via Safe Exam Browser (Moodle-based assessments)

It is important to consider that some students may only have a mobile device and do not have the luxury of multiple devices. For these students, navigating between apps and reading the examination paper during e-assessments can be especially challenging. There are however certain modules where students are required to have multiple devices and/or a printer. In such cases there may be no other option other than to conduct the exam on campus.

### 1. MS Teams

Using MS Teams as means to invigilate examinations is the recommended approach for the final exams of the 2020AY. Video-based help resources are provided in Annexure E of this document. Annexures A through D provide additional information pertaining to e-assessment.

The general process for conducting e-assessments using MS Teams involves the following:

#### **Creation of the MS Team that will be used for examination**

- A Class Team must be created (if one does not already exist) using the subject module code.
- Cohorts larger than 45 students require the creation of breakout rooms.
- Students (participants) must be pre-added to the Team using the email module group function.
- Invigilators must be added as Teachers. At least 1 invigilator must be assigned to each breakout room.
- Examination documents must be uploaded to the Files section of the Team. and must be secured with a password (PDF format is recommended).
- Other documents such as a declarations, examination rules and special instructions must also be uploaded. These same documents must be emailed to students during the start-up period on the day of the exam (see 3 stage approach below).

- The link to the e-assessment MS Teams session must be distributed via email to official student email addresses.

**Pre-assessment MS Teams session on the day before the exam:**

- Student attendance of the pre-assessment session should be compulsory.
- This session is a dry-run of the examination and is intended to ensure that students are technologically prepared as well as providing a hands-on experience with MS Teams. This is an opportunity for lecturers to reiterate critical protocols and to iron out any challenges students might raise.
- Many students (and staff) have not experienced the use of breakout rooms in MS Teams and this session provides an opportunity to experience this.

**The examination will be conducted using a 3-stage approach:**

**1. Start-up period**

- The duration of the start-up is up to the lecturer based on size of cohort and duration/complexity of the assessment and pre-reading period. Typical duration is 25-45 minutes.
- This period must be used to sign the declaration, print all the required examination documents (if required), reading the examination rules and verification of student particulars.
- The password to unlock password protected documents must be communicated (Chat/Email). Duplicates of these same documents must be uploaded to the Files tab in the Team's General channel - this is very important in cases where students only have a single device e.g. only a mobile phone, as it simplifies access.

**2. Assessment period**

- This period is allocated for completing the examination.
- 5 minutes before the examination commences you will be required to show your student card, face and hands to the camera.

**3. Close-out**

- Once the examination period has lapsed, this time must be used to scan (using the designated apps) to all the relevant documents (including the declaration) and submit them via e-mail or Moodle (as preferred by the lecturer). The submission must be in a PDF format - the scanning apps create PDF files.
- It is your responsibility to ensure that you submit your work on time. A penalty of -5% will be deducted from your final mark for every 5 minutes that your submission is late. (*NB! Penalties are at the discretion of the lecturer*).

## **2. Respondus Lockdown Browser & Monitor (Moodle-based assessments)**

In exceptional cases, such as professional examinations, more stringent security and exam integrity may be required. The university has a dedicated assessment server that is loaded with Moodle (separate from i-Learn) as well as Respondus Lockdown Browser and Monitor.

The Lockdown Browser is a custom web browser that students are required to download. When launched this browser prevents students from navigating to other applications on the PC. If students require access to certain websites during the examination, these can be specified when the assessment is being setup. It is important to note that the browser only works with the Moodle Quiz activity.

Respondus Monitor uses the device's webcam to provide a visual feed of the student during assessment and has AI enhancements that flag suspicious behaviour. The caveat with the Respondus Monitor is that this app only works in tandem with Lockdown Browser and cannot be used in a standalone context.

In order to access Respondus, lecturers are required to submit a ticket to ICT Helpdesk requesting the creation of the module(s) to be assessed. The requirement for Respondus must also be specified. You will be contacted by support staff who will lead you through the process.

### **3. Lockdown via Safe Exam Browser (Moodle-based assessments)**

Moodle 3.9+ has a built-in open source lockdown browser called Safe Exam Browser. The university's dedicated assessment server has been upgraded to Moodle 3.9 (i-Learn | Moodle is currently on version 3.3). This browser is simpler to implement than Respondus Lockdown Browser as students are not required to download and install software on their own devices and lecturers can easily activate it when setting up a Quiz activity.

As with Respondus, the Safe Exam Browser only works with Moodle's Quiz activity and simply limits the student's ability to access other applications on the PC while allowing access to specified website addresses if required.

In order to access Safe Exam Browser, lecturers are required to submit a ticket to ICT Helpdesk requesting the creation of the module(s) to be assessed. The requirement for Safe Exam Browser must also be specified. You will be contacted by support staff who will lead you through the process.

# Annexure A

## e-Assessment Examination Rules

*This should be read in conjunction with the original examination rules as laid out by the Nelson Mandela University Examinations Department.*

1. Examination rules come into effect as soon as the student enters the virtual examination environment.
2. All instructions given by the invigilator must be followed.
3. Disregarding instructions may lead to disciplinary measures.
4. Only essential stationery and permitted standards may be at your desk.
5. The invigilator will announce the start time and end time. If the assessment has different segments, then the invigilator will announce the different segments start times. Students must keep their own time.
6. Students must write neatly and write their name, surname and student number on each page and clearly number their pages (see annexure B).
7. Students must read the paper before commencing. If there are questions during the reading time, must raise their electronic hand and then use the chat function to communicate with the invigilator. Once a response has been received students must lower their electronic hand.
8. No communication will be allowed amongst students.
9. Students microphones must be on at all times. Students may turn down their speaker's volume to avoid being distracted by background noise. Remember each time someone speaks the whole group can hear and that is going to be distracting. Students may
10. Students are not allowed to speak directly to the invigilator unless it is an emergency. Students must ask questions using of the MS Teams chat function.
11. Students can use the bathroom by holding up a que card with the word "bathroom" to alert the invigilator. You must ensure that you are back within 5-minutes. Failure to adhere to this rule will mean you forfeit your examination.
12. No student may use the bathroom in the 1st hour of the examination.
13. The student's camera and microphone must be turned on at all times. During the examination period students may turned down their speaker's volume to avoid being distracted by the background noise.
14. Students are not allowed to wear earphones/headphones.
15. Students who lose connection for whatever reason just re-join the session using the same link. Please note that the academic staff nor invigilators would not be able to assist students with any technical difficulties.
16. Students who lose connection for longer than a 5-min period due to load shedding or any other problem, must submit an affidavit to the lecturer within 3 (three) days after the exam, detailing the circumstance.
17. Where the examination requires a student to scan their written paper(s), students must ensure that their answers are clear and legible.

## Annexure B

When invigilating via MS Teams it is important to note that a view of the hands is more important than the face. Students are expected to verify themselves by holding up their student card and displaying their face (Image A) and also by holding up the back of their hands (Image B). In Image C the student's hands, script and student card are visible.

Image A



Image B



Image C



## Annexure C

During the pre-assessment session student's should be encourage to prepare for the exam by pre-filling in their details on writing paper as per the example below. This will ensure that scanned answer papers can be correctly linked to the student during marking.

## Annexure D

Element: STEEL STRUCTURE		Job:	PRACTICAL
			QUESTION
	<b>STEEL COLUMNS ETC</b>  S235K165x46.1kg/m I-section galvanised steel in single lengths not exceeding 15m long with base and top plates and connection plates welded on, including holes and bolting to concrete base at bottom (and/or bolts elsewhere)	2/3/2021 0.1m	10mm Top Plate  $X 78.40 \text{ kg/m}^2$ = _____ kg - 1000 = _____ t
2/5 2.79	<b>Detail of mass</b>  305x165x46.1kg/m I-section column	4/2/2021 0.1m	90x58x7.07kg/m L-section cleat  $X 7.07 \text{ kg/m}$ = _____ kg - 1000 = _____ t
2/6 0.62 0.62 base	(End of mass detail)  12mm Base Plate  $X 94.08 \text{ kg/m}^2$ = _____ kg - 1000 = _____ t	6/4	25mm Diameter x 200mm long galvanised mild steel holding down bolt incl. washer as casting in exact position in top of concrete
	$7.84 \times 12 = 93.68$		A B

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Element:	STEEL STRUCTURE	Job:	PRACTICAL
	<u>STEEL COLUMNS ETC.</u>		
	Sect K15 x 6.1kg/m I-Section galvanised steel in single lengths not exceeding 13m long with base and top plates and connection plates welded on, including holes and bolting to concrete base at bottom (anchor bolts elsewhere)	2/3/0.31 0.71	10mm Top plate  $X 78.40 \text{ kg/m}^2$ = _____ kg $\div 1000 =$ _____ t
	<u>Detail of mass</u>	4/1/07	boxx7.07kg/m L-section cleat  $X 7.07 \text{ kg/m}$ = _____ kg $\div 1000 =$ _____ t
7/8 2.79	305 x 16.6kg/m I-section column	6/4	(End of mass detail)  25mm Diameter x 200mm long galvanised mild steel holding down bolt incl. washer as casting in exact position in top of concrete
7/8 0.62 0.62 base	12mm Base plate  $X 9.48 \text{ kg/m}^2$ = _____ kg $\div 1000 =$ _____ t  $7.84 \times 12 = 93.68$		=
			(1)

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# Annexure E

## Video Resources (MS Streams)

*You may be asked to login using your Mandela Uni student email address and password.*

### FOR STAFF:

[How to setup an MS Team with breakout rooms](#) | 7 minutes 20s

### FOR STUDENTS:

**Two videos were created for students to assist them to prepare for e-assessment:**

[How to set up your physical examination space and devices](#) | 1 minutes 20s

[Walk-through of the entire examination process on a mobile device](#) | 5 minutes

**Students are required to download this app to take photos of their answer papers (it generates PDF images):**

CamScanner can be downloaded from the Play Store and iStore:

Android: [https://play.google.com/store/apps/details?id=com.intsig.camscanner&hl=en\\_ZA&gl=US](https://play.google.com/store/apps/details?id=com.intsig.camscanner&hl=en_ZA&gl=US)

Apple: <https://apps.apple.com/us/app/camscanner-pdf-scanner-app/id388627783>