Online examinations

March 23rd, March 24th 2020

Translating in-class exams and other assessments to an online format

• Maintain alignment between the exam questions and your learning objectives. If the learning objective is that students should be able to "apply" particular concepts to a given situation, then be sure that your exam questions -- whatever format they appear in -- are asking students to demonstrate application knowledge.

Consider allowing multiple attempts at an exam/quiz (unreliable internet)

Strategies for online quizzes/exams

- Translate your existing assessments
 - Consider making them open book exams
 - Canvas allows for you to make exams timed
 - Consider making them take home exams
 - Not timed, but a larger window (48 hours) for submission
 - Points for completion instead of accuracy
- Redesign your existing assessments
 - Convert multiple choice to short answer questions
 - Change final exam into a project or paper
 - Presentations
 - If goal is presentation skills, have students record themselves and upload video
 - Otherwise, have students upload transcript plus slides for evaluation
- Break high stakes exams into smaller, weekly quizzes that target specific skills

Important considerations

- Feedback for students is critical
 - Canvas has several ways you can manage this
 - Show answers for a limited period of time to students
 - Create a rubric or scoring key and integrate with SpeedGrader or GradeScope
 - Give whole class feedback via an "announcement" on Canvas
 - Give individual feedback via Zoom/office hours
- Be mindful of students in different time zones
 - Widen your exam window (while keeping time limit the same)
 - Assign different availability windows (depending upon time zone of students)
 - Requires knowing where each students is geographically

Promoting academic integrity online

- Use short answer questions in addition to multiple choice questions
- Randomize order of answers for multiple choice questions
- Create two equivalent exams using a "test bank" on Canvas
- Use Respondus Lockdown Browser and Respondus Monitor
 - These are <u>deterrents only</u> and cannot completely prevent cheating
- Use Turnitin
 - Percentage merely indicates further investigation; it does <u>not</u> constitute proof of cheating/plagiarism
 - If students use the same sources/texts, it's normal to see ~15% matching

Carnegie Mellon University Qatar Information Technology

Using Canvas and Respondus for online assessments and remote exam monitoring

Nasser Alaeddine, Ph.D., CISSP, PMP
Director of Educational and Media Technologies
Information Technology

Mapping of students learning assessments & available tools

Assess Students Learning	Tool
Online Quizzes & Exams	Use Canvas Quizzes Use Canvas Quizzes with Respondus Lockdown Browser Use Canvas Quizzes with Respondus Lockdown Browser and Respondus Monitor
An essay paper or other type of long-form written exam	Use Canvas Assignments with Turnitin Plagiarism Detection
Group or Individual recorded or narrated presentations	Use Canvas assignments or Box to allow students to upload their recorded or narrated presentations
Discussions	Use Canvas Discussions
Live presentations	Use Zoom

The tools

Canvas

- Canvas Quizzes for online assessments
- Briefly Touch on
 - Canvas Assignments
 - Canvas Discussions

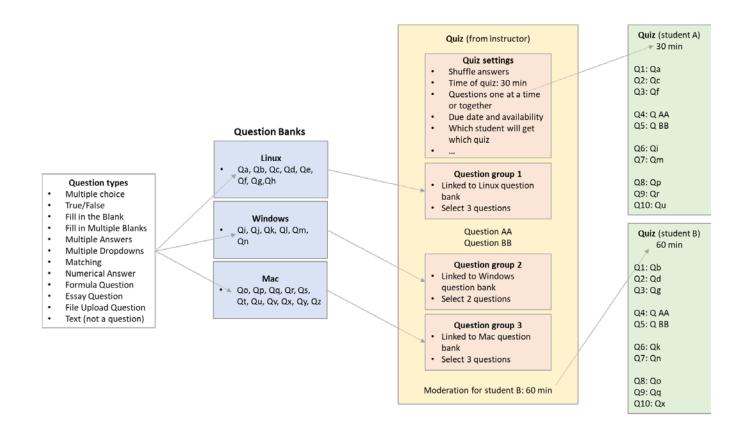
Respondus

- Respondus Lockdown Browser locks students out on their computer to everything except the Canvas Quiz
- Respondus Monitor uses the webcam to record the student and the video is analyzed and flagged for suspicious behavior

Canvas Quizzes

Preparing a Canvas Quiz

- 1. Create a Quiz
- 2. Quiz types
- 3. Assignment Groups
- 4. Quiz settings
- 5. Types of Questions
- 6. Create Question Banks
- 7. Create Question Groups
- 8. Create the Quiz using Question Groups and Question Banks
- 9. Moderate a Quiz
- 10. SpeedGrader
- 11. Quiz Statistics

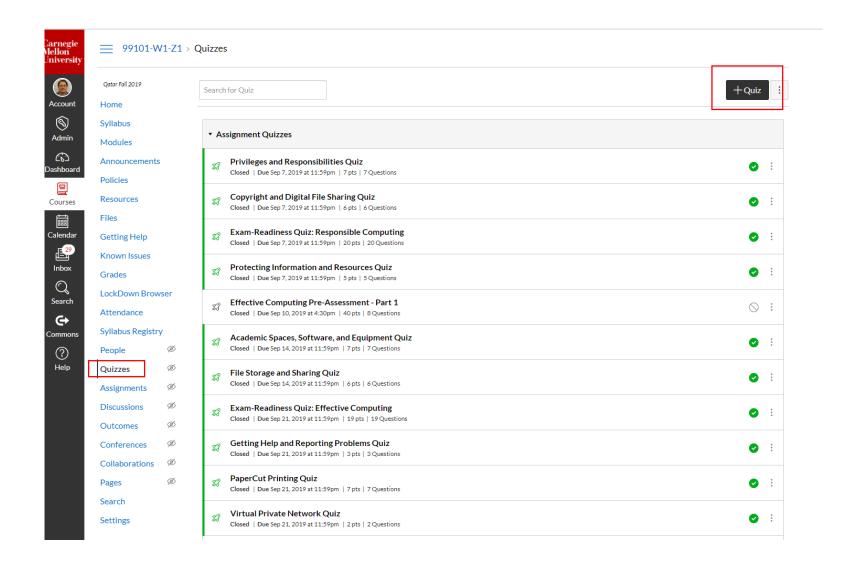


Create a Quiz

Canvas Quizzes allow you to create online quizzes to asses students learning.

To begin:

- Click the Quizzes link in Course Navigation.
- 2. Then click the Add Quiz button.



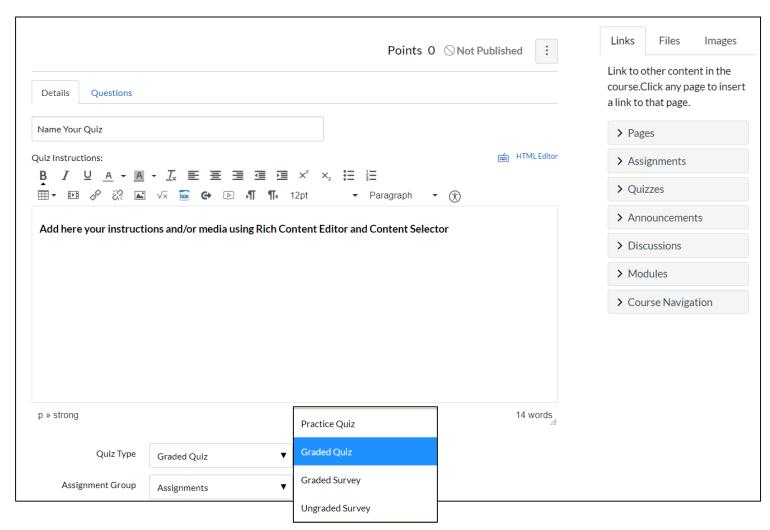
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Innamed Quiz			
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Quiz Type	Graded Quiz		
Assignment Group	Assignments V		
	Options		
	☐ Shuffle Answers		
	☐ Time Limit Minutes		
	■ Allow Multiple Attempts		
	 Let Students See Their Quiz Responses (Incorrect Quest Marked in Student Feedback) 	ions Will Be	
	Only Once After Each Attempt		
	✓ Let Students See The Correct Answers		
	Show Correct Answers at		
	Hide Correct Answers at		
	Show one question at a time		
	Quiz Restrictions		
	Require an access code		
	Filter IP Addresses		
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	Assign to		
	Everyone ×		
	Due		
	Available from Until		
	Available from Ontil		
	+Add		
	-T-Add		
4			•

	Points 0 ONot Published :
Details <u>Questions</u>	
+ New Question	Q Find Questions
Notify users this quiz has changed	Cancel Save & Publish Save

Canvas Quiz Types

- Practice Quiz: Doesn't count for points
- Graded Quiz: For quizzes which should affect the students' grades;
- Graded Survey: count but only whether or not students completed it
- Ungraded Survey: optional survey

If you are creating an online assessment using Canvas Quizzes, you need to set the quiz type to Graded Quiz



When you create a new Canvas course, you will have by default "Assignments" group

+ Group

+ Assignment

SPC-IT-520 → Assignments

Modules

Search for Assignment

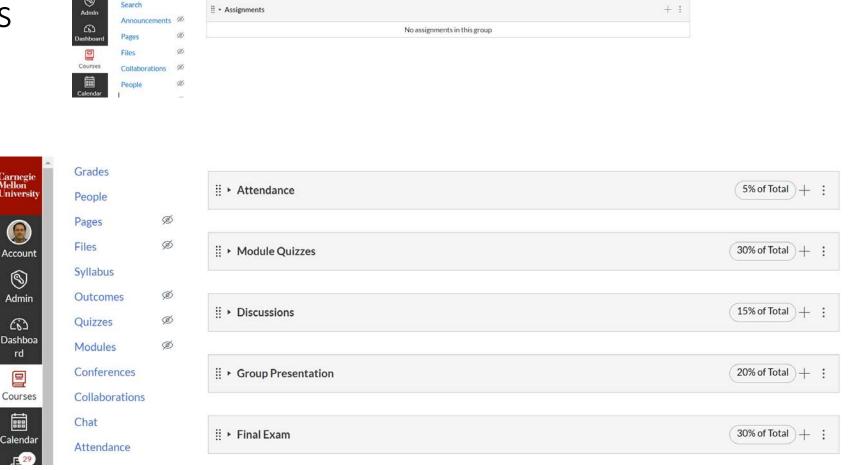
Assignment Groups

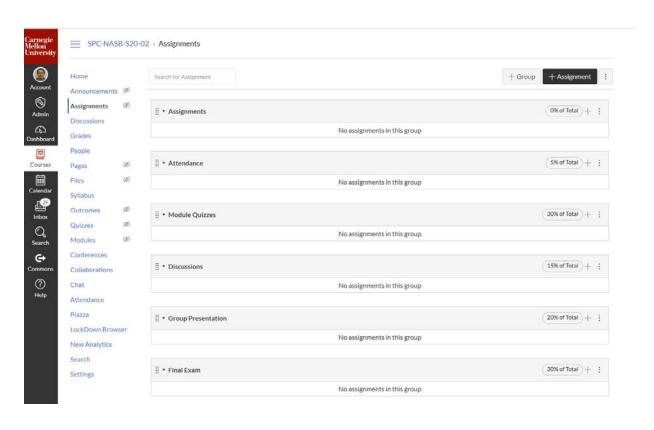
Setting up Assignment Groups helps you to organize your course Assignments

Every Quiz/Assignment must be in an Assignment Group

If you don't create Assignments groups, all your Quizzes will be under the default group "Assignments"

You can also use Assignment Groups to set up a Assignment Group weight of the final course grade which will automatically calculate the final grade in the gradebook.



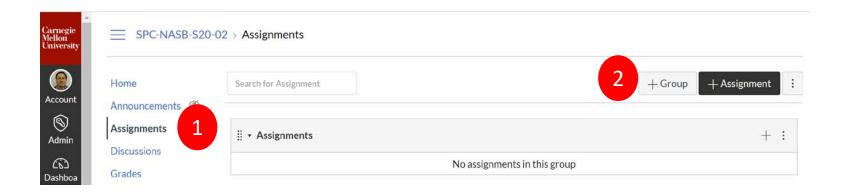


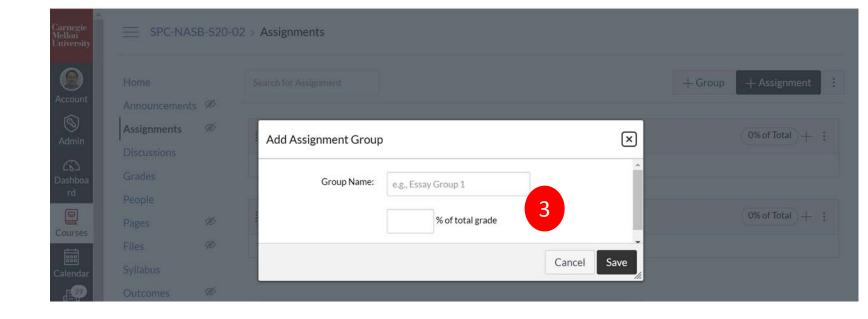


Create assignment groups

- 1. Click **Assignments** in the course navigation menu.
- Click +Group.
- 3. Enter the first **Group Name** in the field provided. Note that until you've indicated that you will use "weighted" assignment groups, the **% of total grade** field will not show up.
- Click Save.

Repeat steps 2-4 until you've created all assignment groups.





Canvas Quiz Settings (1)

Quizzes on Canvas allow instructors to configure settings to provide useful options and feedback. The following can be updated in quiz settings:

Shuffle answers

Time limit

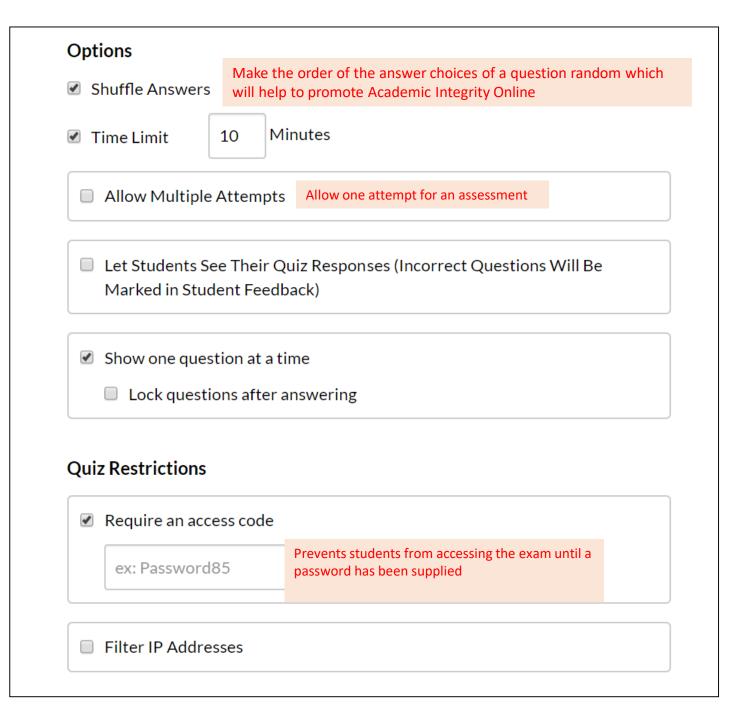
Multiple attempts

Students feedback

Show one question at a time

Require an access code

Filter IP Addresses



Canvas Quiz Settings (3) Provide student feedback

Provide students with a feedback on their assessments, consider these options:

- Limit the initial feedback to nothing or only see the score
- Once all the students have completed the exam, you can allow students to see their responses and the answers for a limited amount of time
- ✓ Let Students See Their Quiz Responses (Incorrect Questions Will Be Marked in Student Feedback) Only Once After Each Attempt Let Students See The Correct Answers Show Correct Answers at Mar 23, 2020 10:00 am Hide Correct Answers at 繭 Mar 31, 2020 10:00 pm

Local: Tue Mar 31, 2020 10:00pm Course: Tue Mar 31, 2020 10:00pm

Details	Questions		
Unname	d Quiz		
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As	signment Group	Assignments V	
		Options	
		■ Shuffle Answers	
		■ Time Limit Minutes	
		Allow Multiple Attempts	
		Let Students See Their Quiz Responses (Incorrect Questions Will Marked in Student Feedback) Only Once After Each Attempt Let Students See The Correct Answers	l Be
		Show Correct Answers at	
		Hide Correct Answers at	
		Show one question at a time	
		Quiz Restrictions	
		Require an access code	
		Filter IP Addresses	
	Assign	Assign to	
		Everyone ×	
		Due	
		Available from Until	
		Available from Ontil	
		+Add	
4)
■ Noti	fy users this quiz h	nas changed Cancel	Save & Publish Save

	Points 0 Not Published :
Details <u>Questions</u>	
+ New Question + New Question Group	Q Find Questions
Notify users this quiz has changed	Cancel Save & Publish Save

Canvas Quiz Settings (4) Set Due Date and Availability

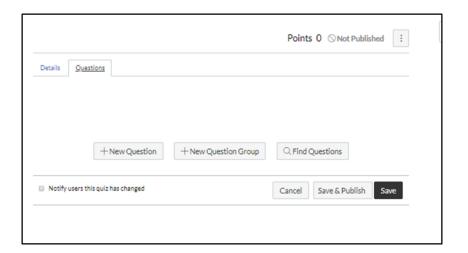
- Due date will autopopulate into the course calendar and Canvas syllabus.
- If you'd like to restrict the visibility of the Quiz, Available from can be added.
- Add an until date or leave the until date blank to allow late submissions.

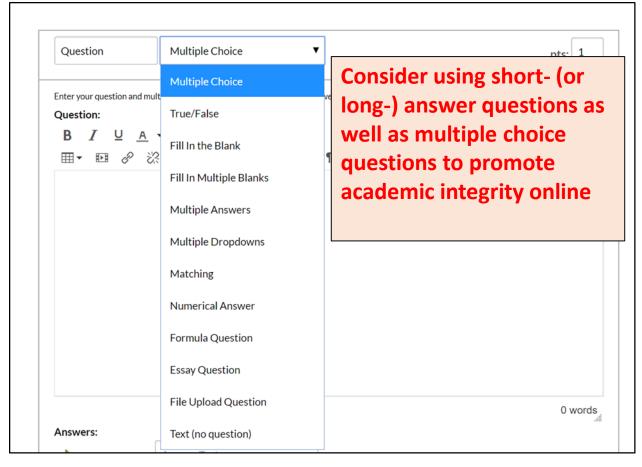
By default, Canvas will set your assignment for everyone in your course. Assign Assign to Everyone Add a Due Date Due Restrict the Available from Until visibility of the Mar 23 10am Mar 24 11:59pm quiz Local: Mon Mar 23, 2020 10:00am Widening the Course: Mon Mar 23, 2020 10:00am exam window (while keeping +Add the students' completion time limit the same) to support students in different time zones

Add Questions to a Quiz

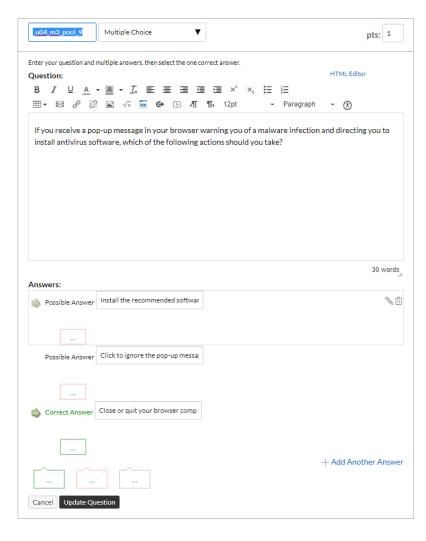
There are various question types you can use when creating your Canvas Quiz.

- Multiple Choice (Links to Canvas site.)
- 2. <u>True/False (Links to Canvas site.)</u>
- 3. Fill-in-the-Blank (Links to Canvas site.)
- 4. <u>Fill-in-Multiple-Blanks (Links to Canvas site.)</u>
- 5. Multiple Answers (Links to Canvas site.)
- 6. Multiple Drop-down (Links to Canvas site.)
- 7. Matching (Links to Canvas site.)
- 8. Numerical Answer (Links to Canvas site.)
- 9. <u>Formula (Links to Canvas site.)</u> (simple formula and single variable)
- 10. Essay (Links to Canvas site.)
- 11. File Upload





Enter your question and multiple answers, then select the one correct answer. HTML Editor Question: $B \quad I \quad \cup \quad \underline{A} \quad \overline{} \quad \underline{A} \quad \overline{} \quad \underline{E} \quad \overline{\underline{E}} \quad \overline{\underline{B}} \quad \overline{\underline{G}} \quad \underline{\overline{G}} \quad \times^2 \quad \times_2 \quad \overline{\underline{E}} \quad \underline{\overline{E}}$ Ⅲ → Ⅲ 🖋 🐰 🔛 √x 🚾 🕒 🗈 🞵 🕠 12pt → Paragraph → 🕥 A large amount of spam being sent from your Andrew email account is detected. Select the action that is most likely to occur. 23 words Answers: Possible Answer Your social networking accounts **™** Comments, if the student chooses this answer: Incorrect. Access to your social networking accounts won't be restricted, but you should make sure that your accounts have not been compromised. It appears that you need to learn about protecting your online presence. You should read the exposition and complete the learning activities in the module on Malware and Spam. Possible Answer | The Office of Student Affairs requ Comments, if the student chooses this answer: Incorrect. The Office of Student Affairs would not typically get involved in this scenario. It appears that you need to learn about protecting your online presence. You should read the exposition and complete the learning activities in the module on Malware and Spam. Correct Answer Your Andrew account is suspende Comments, if the student chooses this answer: Correct. Your entire Andrew account will be suspended until the situation can be resolved. You should read the exposition and complete the learning activities in the module on Malware and Spam to enhance your knowledge on protecting your online presence. + Add Another Answer Cancel Update Question





SPC-NASB-S20-01 → Quizzes → Demonstrate Question Types



(S) Admin





Home

Modules

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LockDown Browser

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Search Assignments Discussions Outcomes Conferences ÷ Collaborations Files Pages

Settings

Demonstrate Question Types

① This is a preview of the published version of the quiz

Started: Mar 21 at 6:18pm

Quiz Instructions

This quiz has every type of question supported by Canvas.

This is just text that can be placed among questions. This can be introductory text, instructions between questions, section marker or closing instructions.

Neep Editing This Quiz

Questions Spacer Question 1

② Question 2 ② Question 3

② Question 4

② Question 5

② Question 6

② Question 7

Time Elapsed: Hide

0 Minutes, 8 Seconds

>	Question 1	1 pts
	Multiple Answers	
	Can you define personally identifiable information (PII)?	
	I have some idea of what it is but can't give any examples.	
	□ I have never heard of it.	
	□ I can give one example of PII.	
	■ I have heard of it but don't remember what it is.	
	Can give multiple examples of PII.	

>	Question 2		1 pts
	Fill in the Blank		
	What is your most commonly pr	acticed practice for avoiding Corona virus?	

⊃	Question 3	1 pts
	Formula Question	
	Evaluate x^2 - 3x + 2 for x = 4.	

)	Question 4	1 pts
	Multiple Choice	
	Which permission gives the least amount of access when you share a file using Google Drive?	
	Can Comment	
	Can View	

	Quest	tion 5	1 pts
	File Up	pload Question	
		upload your PDF for the 3-4 page essay on the importance of COV	ID-19 to accelerate the use
	or techi	nology in education.	
	Upload	Choose a File	
L			

)	Question 6			1 pts
	Fill in Multiple Blanks			
	An operating system consists of a	,	and	

Question 7	1 pt
Essay Question	
How you can protect yourself from Corona virus?	
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⊃	Question 8	1 pts
	True/False	
	There's no threat to your information so long as you don't share your Andrew ID and password anyone. $ \\$	with
	© True	
	False	

Question 9				1	pt
Multiple Dropdo	wns				
[Select]	▼	[Select]	•	are two good ways to avoid	

Question 10	1p
Matching	
n order to avoid an academic integrity vi	iolation you should follow which of these tips?
Work on your assignment until the last cossible minute	[Choose]
When in doubt, cite your sources	[Choose]
Review the course syllabus for expectations	[Choose]
Be hopeful that what you're doing is correct	[Choose]
Be hopeful that what you're doing is correct	

)	Question 11	1 pts
	Numerical Answer	
	What is 3 ²	

Quiz saved at 6:20pm Submit Quiz

Create Question Banks

Organize all of the questions available for a quiz

Allow you to store any questions that you created to use for future assessments

Questions automatically added to a Question Bank called "Unfiled Questions" incase you don't create a question bank.

Home Search for Quiz Modules ? Manage Question Bank LockDown Browser ▼ Assignment Quizzes Commons Favorites Search Responsible Computing Pre-Assessment Ø ○ : People Closed | Due Sep 3, 2019 at 4:30pm | 35 pts | 7 Questions Ø Syllabus Copyright and Digital File Sharing Quiz ○ : Courses Announcements Ø Ø Privileges and Responsibilities Quiz ○ : Ø Closed | Due Sep 5, 2019 at 6:59am | 7 pts | 7 Questions Quizzes Allows you to organize two or more versions of the exam equivalent in difficulty Carnegio Mellon Universi — SPC-NASB-S20-01 → Question Banks 0 Home **Course Question Banks** + Add Question Bank Account Modules ☐ View Bookmarked Banks (8) ERQ EC - Academic Spaces, Software, Equipment - Equipment D & X LockDown Browser Admin Search Last Updated: Mar 19 at 1:41pm People ERQ EC - Academic Spaces, Software, Equipment - Software X Last Updated: Mar 19 at 1:41pm Announcements Ø ERQ EC - Academic Spaces, Software, Equipment - Virtual Qatar Grades Last Updated: Mar 21 at 6:41pm Quizzes 2 ERQ EC - Academic Spaces, Software, Equipment - Spaces D NX Last Undated: Mar 19 at 1:41pm

SPC-NASB-S20-01 → Quizzes

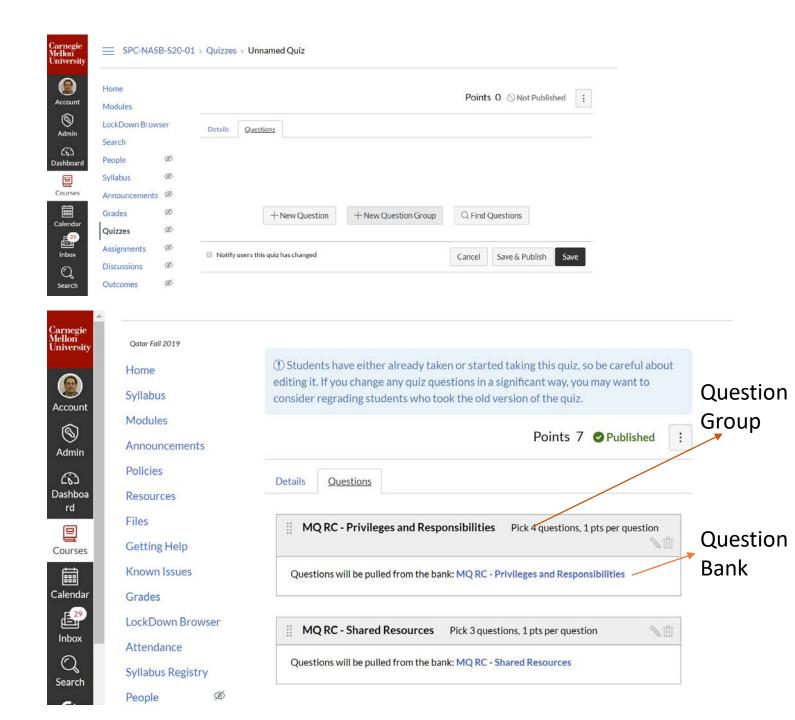
Name the question banks into something you can recognize later on

Create Question Groups

Question groups allow you to place multiple questions within a group for students to answer.

You can choose the number of questions that should be answered from the group and how many points to assign each question.

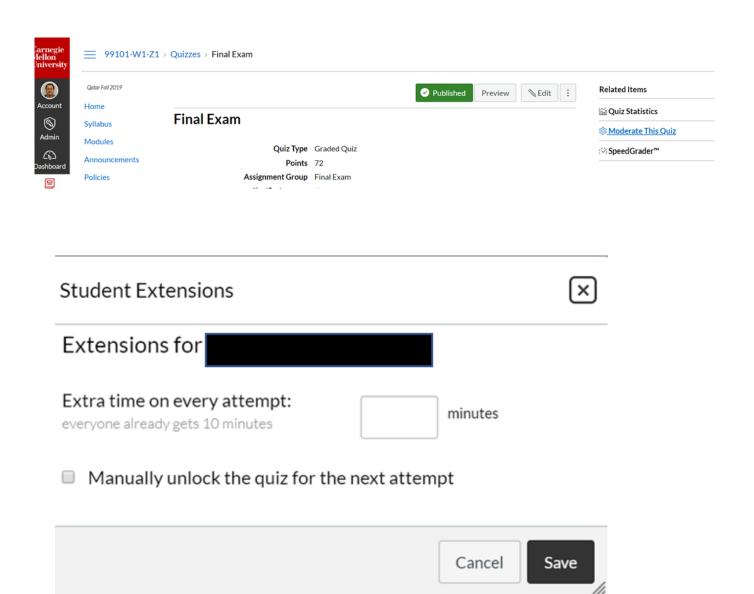
Creating a question group randomizes questions within a quiz



Moderate a Quiz

You can grant students extra attempts, grant extra time for timed quizzes, and manually unlock quiz attempts.

Students who have accommodations for Extra testing time, this feature allows you to assign different time limits to those students.



Canvas Quiz structure

Question types

- Multiple choice
- True/False
- Fill in the Blank
- Fill in Multiple Blanks
- Multiple Answers
- Multiple Dropdowns
- Matching
- Numerical Answer
- Formula Question
- Essay Question
- File Upload Question
- Text (not a question)

Question Banks

Linux

Qa, Qb, Qc, Qd, Qe, Qf, Qg,Qh

Windows

Qi, Qj, Qk, Ql, Qm, Qn

Mac

Qo, Qp, Qq, Qr, Qs, Qt, Qu, Qv, Qx, Qy, Qz

Quiz (from instructor)

Quiz settings

- Shuffle answers
- Time of quiz: 30 min
- Questions one at a time or together
- Due date and availability
- Which student will get which quiz
- ...

Question group 1

- Linked to Linux question bank
- Select 3 questions

Question AA Question BB

Question group 2

- Linked to Windows question bank
- Select 2 questions

Question group 3

- Linked to Mac question bank
- Select 3 questions

Moderation for student B: 60 min

Quiz (student A)

→ 30 min

Q1: Qa

Q2: Qc

Q3: Qf

Q4: Q AA

Q5: Q BB

Q6: Qi

Q7: Qm

Q8: Qp Q9: Qr

Q10: Qu

Quiz (student B) 60 min

Q1: Qb

Q2: Qd

Q3: Qg

Q4: Q AA

Q5: Q BB

Q6: Qk

Q7: Qn

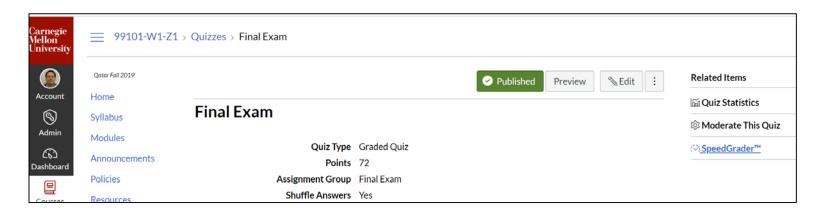
Q8: Qo

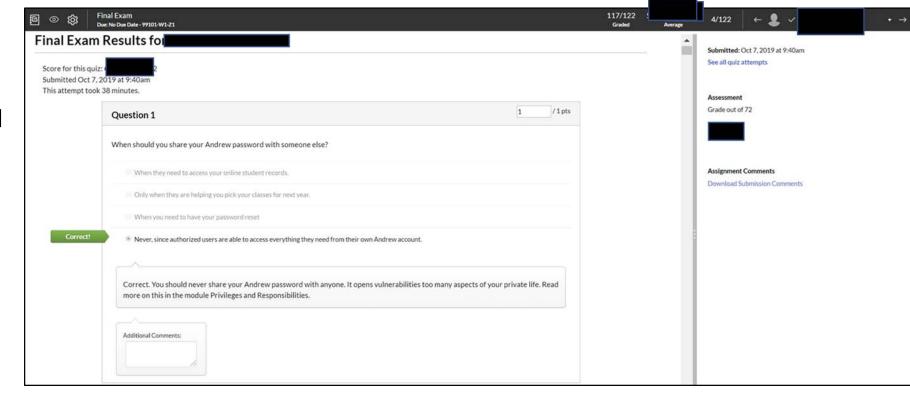
Q9: Qq

Q10: Qx

SpeedGrader

You should access the quiz submissions in SpeedGrader to grade any Essay and file upload questions which require manual grading.

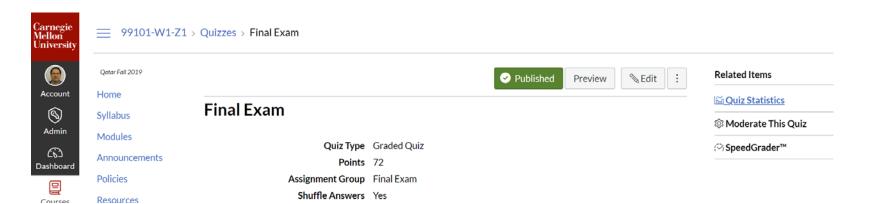


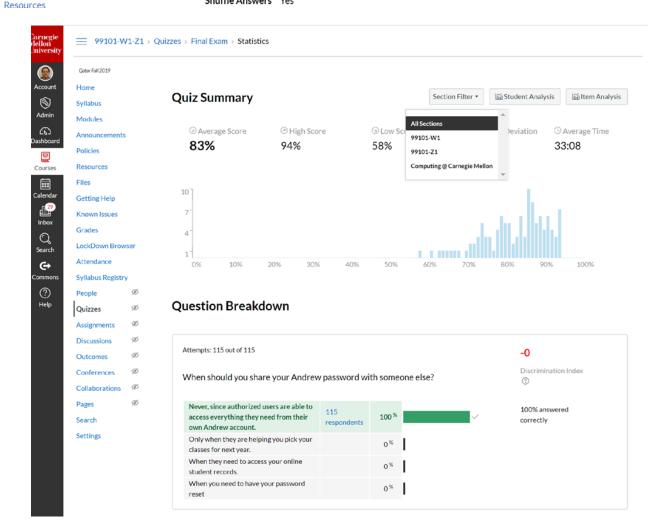


Quiz Statistics

Show the quiz average score, high score, low score, standard deviation (how far the values are spread across the entire score range), and average time of quiz completion

Show also the Question Breakdown



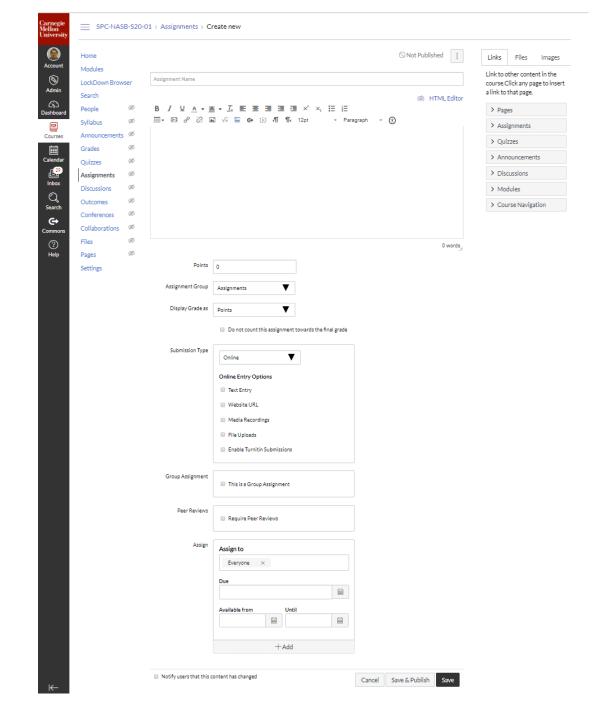


Briefly Touch on Canvas Assignments & Discussions

Create an assignment

Collect student submissions online

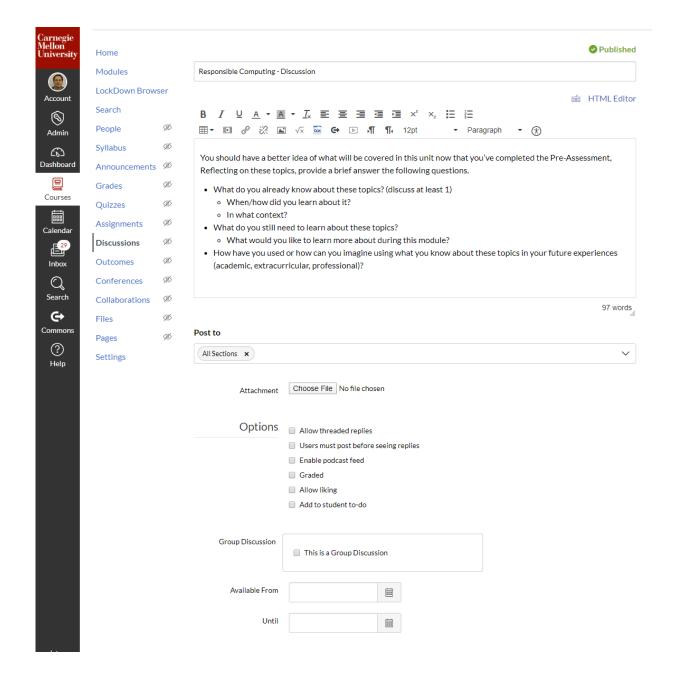
- Essay paper
- Other type of long-form written exam
- Presentation files
- Project files



Canvas Discussions

Discussions can be created as an assignment for grading purposes:

- Reflection assignment
- Answer questions on specific topic
- Share solutions to a problem
- Share insights about a reading

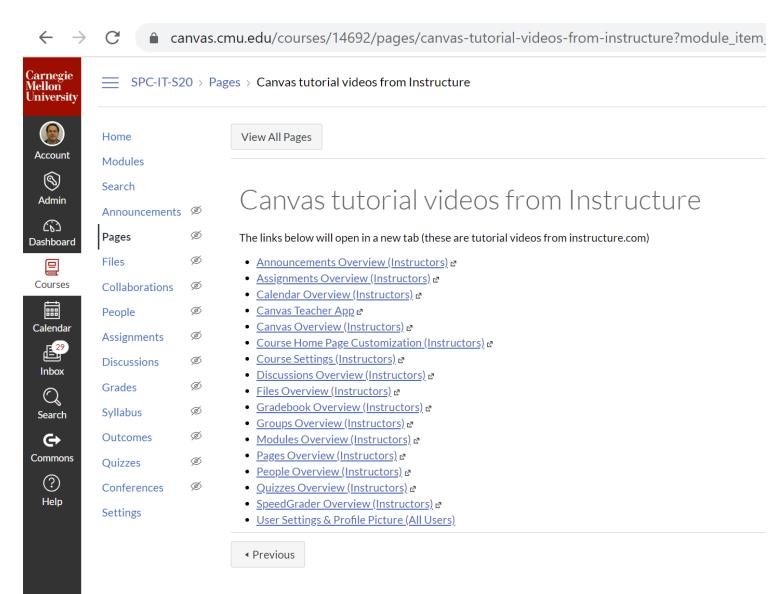


Remote support for Teaching and Learning Canvas Course

Made available tutorial videos from Canvas LMS to show you the details of Assignments and Discussions if you haven't used these features before

Assignments Overview (Instructors)

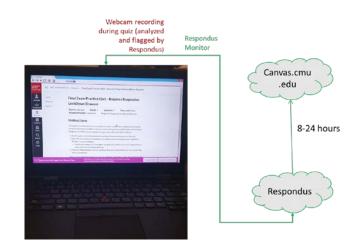
Discussions Overview (Instructors)



Remote Exam Monitoring using Respondus LockDown Browser and Respondus Monitor

Using Respondus with your Canvas Quiz

- Respondus LockDown Browser & Respondus Monitor
- 2. Enable Respondus LockDown Browser in your Canvas course
- 3. Setting up your Canvas Quiz for Lockdown Browser and Monitor
- 4. Understand the Respondus Monitor results
- 5. Taking a quiz using Respondus (Student Expereince)



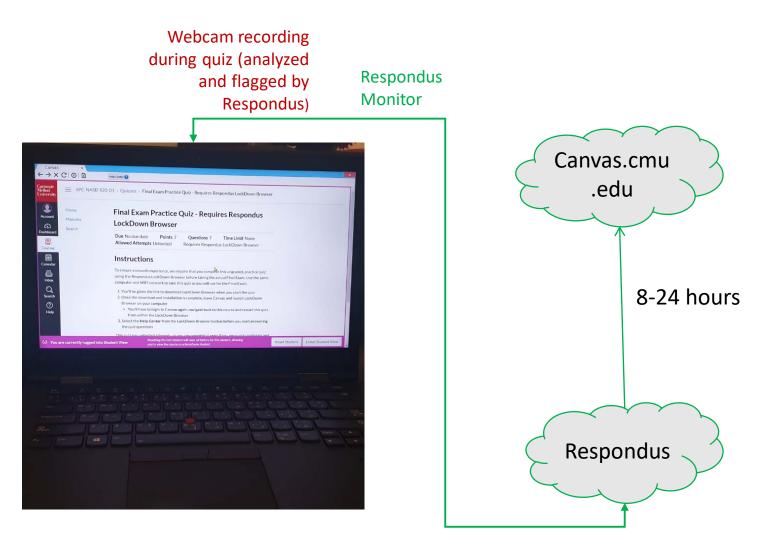
LockDown Browser + Responuds Monitor

What is Respondus lock-down browser?

- Prevent students from accessing the web or other applications during the exam
- Students are unable to print or copy during the exam

What is Respondus Monitor?

Using the students webcam and microphone, the Monitor system records students activity during the exam

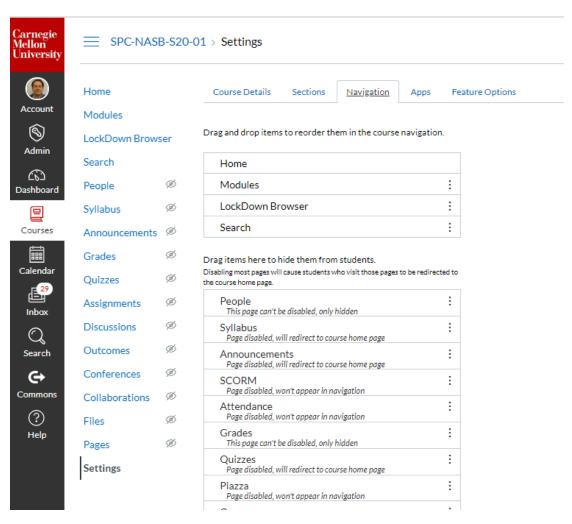


Respondus in a Nutshell

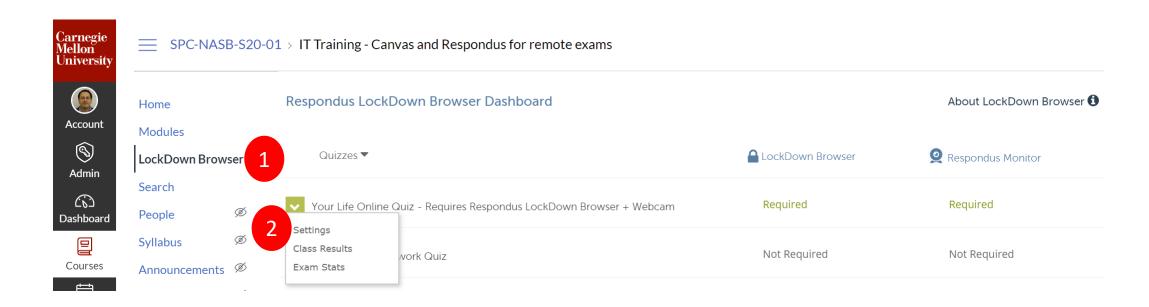
	Can	Cannot
LockDown Browser	 Lock down the testing environment in Canvas Prevent switching to other apps Let students access certain permitted web pages/sites Compatible with only Mac, Windows, and iPad 	 Allow another software to run (like Excel or PowerPoint or Zoom) LockDown Browser is not intended to replace your Browser
Respondus Monitor	 Video tape the student taking exam Can do environment check Flag suspicious behavior 	 Video tape the full environment during exam Tell if the suspicious behavior was cheating (a human judgement is needed and must take into account the rules set down for the exam by the instructor)

Enable Respondus LockDown Browser in your Canvas course

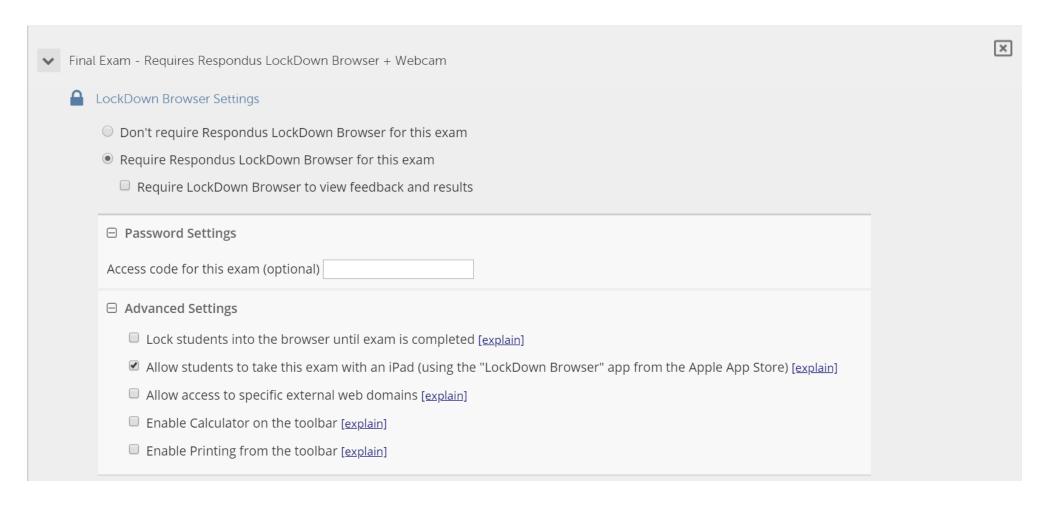
- Click on the "Navigation" tab from your Settings on your course navigation.
- Next, find the LockDown Browser icon from the list and enable it within your course.
- Click the Save button.
- LockDown Browser will now appear on your left Course Navigation menu.



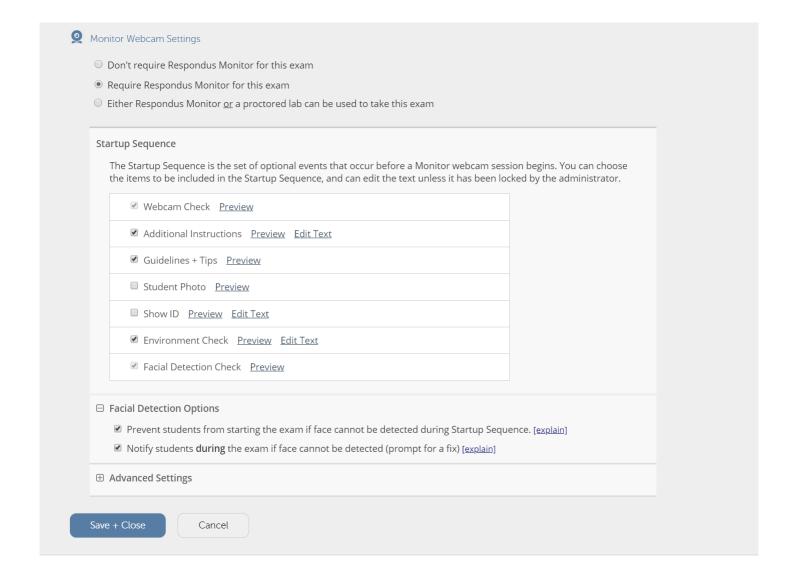
Setting up your Canvas Quiz for Respondus Lockdown Browser + Respondus Monitor (1)



Respondus Lockdown Browser Settings

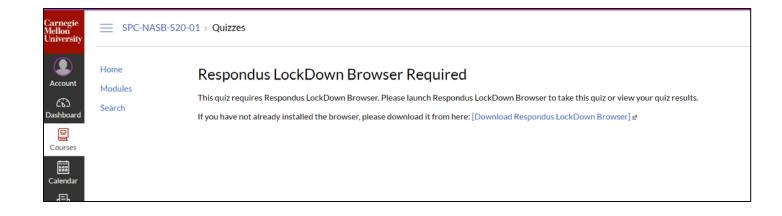


Respondus Monitor Settings

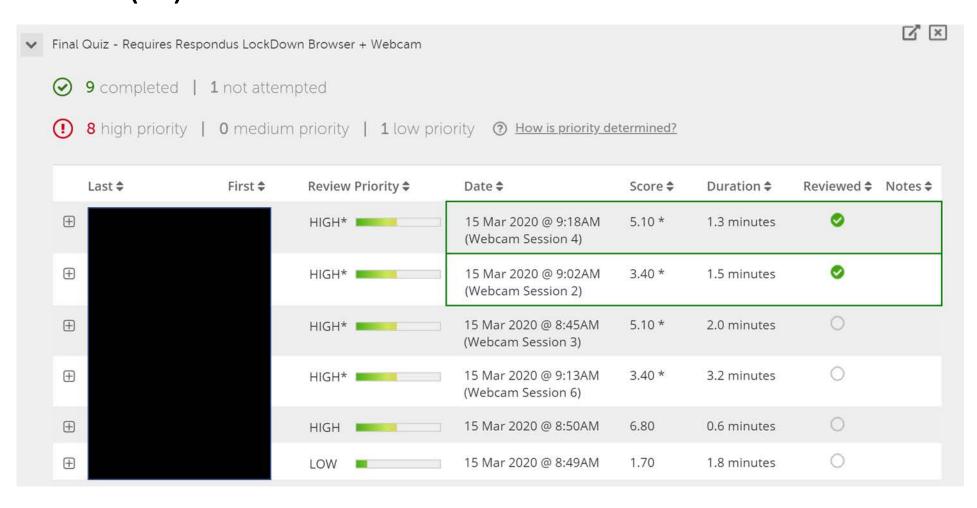


Student Experience

- Upon opening the quiz in Canvas, students will be prompted to download the application and take the quiz.
- Make sure the students know well in advance that they must use Respondus LockDown Browser to take an online exam.
- This is important if the students are required to install Respondus LockDown Browser to their own computer.

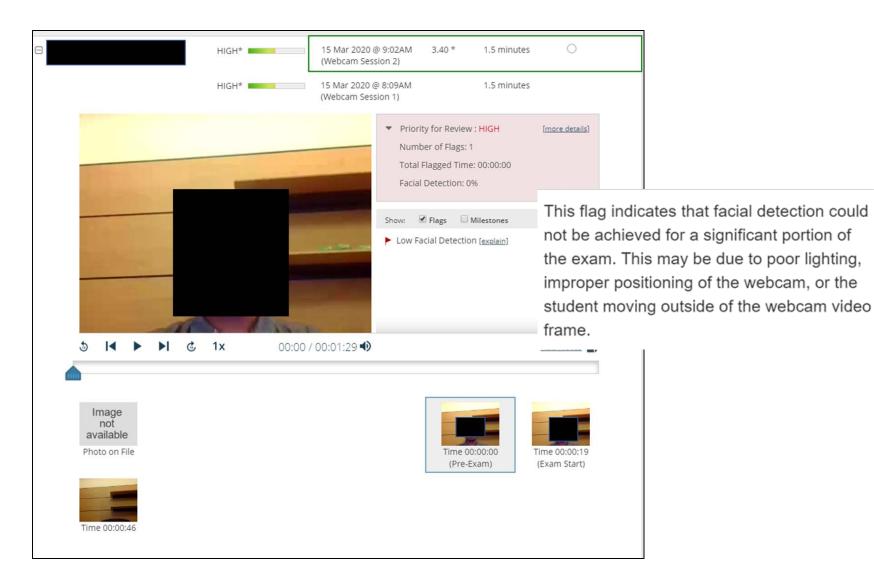


Understanding the Respondus Monitor results (1)



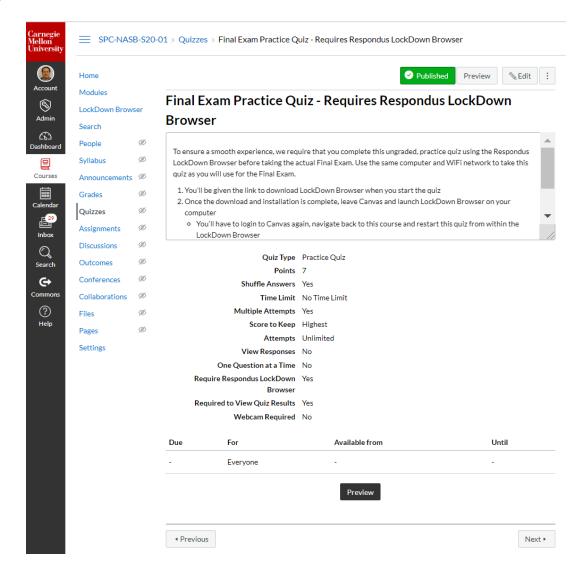
Understanding the Respondus Monitor

results (2)



Practice quiz for Respondus

 It's recommended that you create a "practice exam" that requires the use of Respondus LockDown Browser.



Get student's experience taking a quiz using Respondus Lockdown + Respondus Monitor

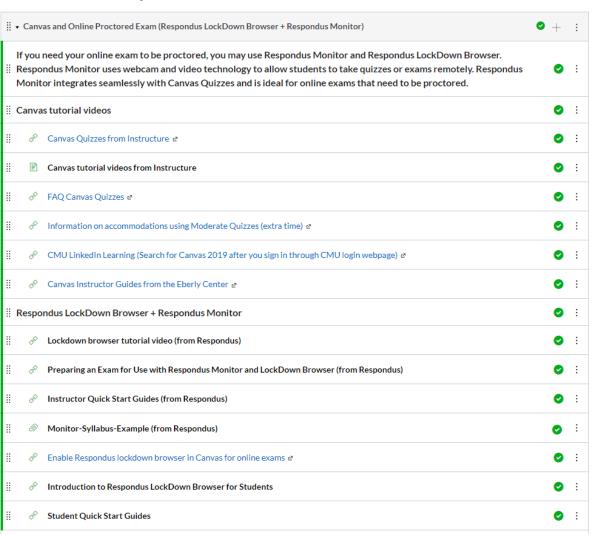
You may try the practice quiz using Lockdown Browser or/and using Lockdown Browser + Respondes Monitor to see things from student's perspective

You can self-enroll in the course "IT Training - Canvas and Respondus for remote exams" using this URL:

https://canvas.cmu.edu/enroll/7AA4L6

Resources for Canvas Quizzes, Respondus LockDown Browser, and Respondus Monitor

https://canvas.cmu.edu/courses/14692/modules



Thank you

Carnegie Mellon University Qatar Information Technology