Designing & Administering Online Assessments: Practical Tips & Techniques to Enhance Academic Integrity

Schulich School of Business
November 20, 2020
12:00 - 1:30 PM

Meet Your Hosts

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Agenda

12:00 PM – 12:30 PM
Designing Assessments for the Online Learning Environment: Enhancing Academic Integrity & Setting Student Expectations

- Differences between Online and In-Person Assessments
- Designing with Learning Objectives & Academic Integrity in Mind
- Early / Frequent Communication to Set Student Expectations

12:30 PM – 1:15 PM
Online Assessment Design: Practical Challenges & Suggested Solutions

- Comparing Online Assessments: Suggestions Where Problematic
- Altering Question Types and Assessment Structures to Encourage Unique Answers
- Online Canvas Quizzes: Set-Up Tips & Considerations

1:15 PM – 1:30 PM
Audience Q & A

The Online Environment: Initial Design Challenges

Face-to-Face vs. Online Assessments are not always 1:1.

- **Student Example:** Presentations over zoom (~1:1) vs. file upload (time to record, edit, review, submit)
- **Instructor Example:** Online quiz considerations may add time to building question banks, time limits, etc.
- Do **NOT** rely on Remote Proctoring.
- Consider alternative formats and tools available when designing assessments, with your **Learning Outcomes** in mind.

Set aside time to design, build, test, and release new assessments. Use the Canvas 'Student View' feature to view course items as your students would.

Need for clear communication of expectations; Highlight **where, when, and how** students are to complete items online. Keep their focus on the course LOs vs. navigation.

Understanding Academic Integrity Issues

Why Do Students Cheat?

- Time pressure
- Grade pressure
- Easy access to unauthorized resources
- Lack of academic honesty reinforcement
- Complicated or confusing instructions
- Too many deliverables at once
- Unmanageable expectations

How Can Students Cheat?

- Plagiarism (individual & group)
- Accessing Unauthorized Tools or Resources
  - Ex: Obtaining internet solutions
  - Ex: Accessing previous assessments through “study aid” websites such as “Course Hero” and “One Class”
- Aiding and Abetting / Unauthorized Collaboration

Means of Maintaining Academic Integrity

Avoid / Alter assignments from previous terms & textbook Q/As easily found online

- Try a quick internet search. If you can find Q/As, so can others.

- Potential opportunity to review older assessments to help prep students.

- Revision Example: Reword a multiple choice for a different response.

Maintain Regular Communications

- Scaffold assignments & give timely feedback.

- Build class relationships & sense of community.

Manageable Assessments & Weekly Workloads

- Don’t assume students will cheat. Rather, design to prevent it.

- Coordinate deliverables & time expectations across courses where able.

Means of Maintaining Academic Integrity

Mention use of Turnitin to check for plagiarism

Review / Reference Schulich's AH Modules

Highlight Academic Honesty Expectations

- In the course syllabus.
- Discuss during class time.
- Announcement in Canvas prior to assignments.
- Require citations and a bibliography.

Include an Academic Honesty Statement

- Signed by students at outset of course.

(See later slide for an example.)

Early / Frequent Communication to Set Student Expectations for Online Assessments

Academic Integrity

- Signed Student Honour Statement at beginning of term
- Canvas announcements prior to specific assessments
- Student Honour Statement embedded in exam or assignment instruction page

Exam Conflicts and Expected Completion Times

- Exam / assignment length vs. window in which exam / assignment can be written
  - Flexibility to avoid scheduling conflicts
  - Reducing student anxiety

Specific Completion / Submission Instructions for Exams / Assignments

- How and when to access an assessment on Canvas
- Time limits for completion
- How to submit a completed exam / assignment on Canvas
- Where / how to seek help with technical issues

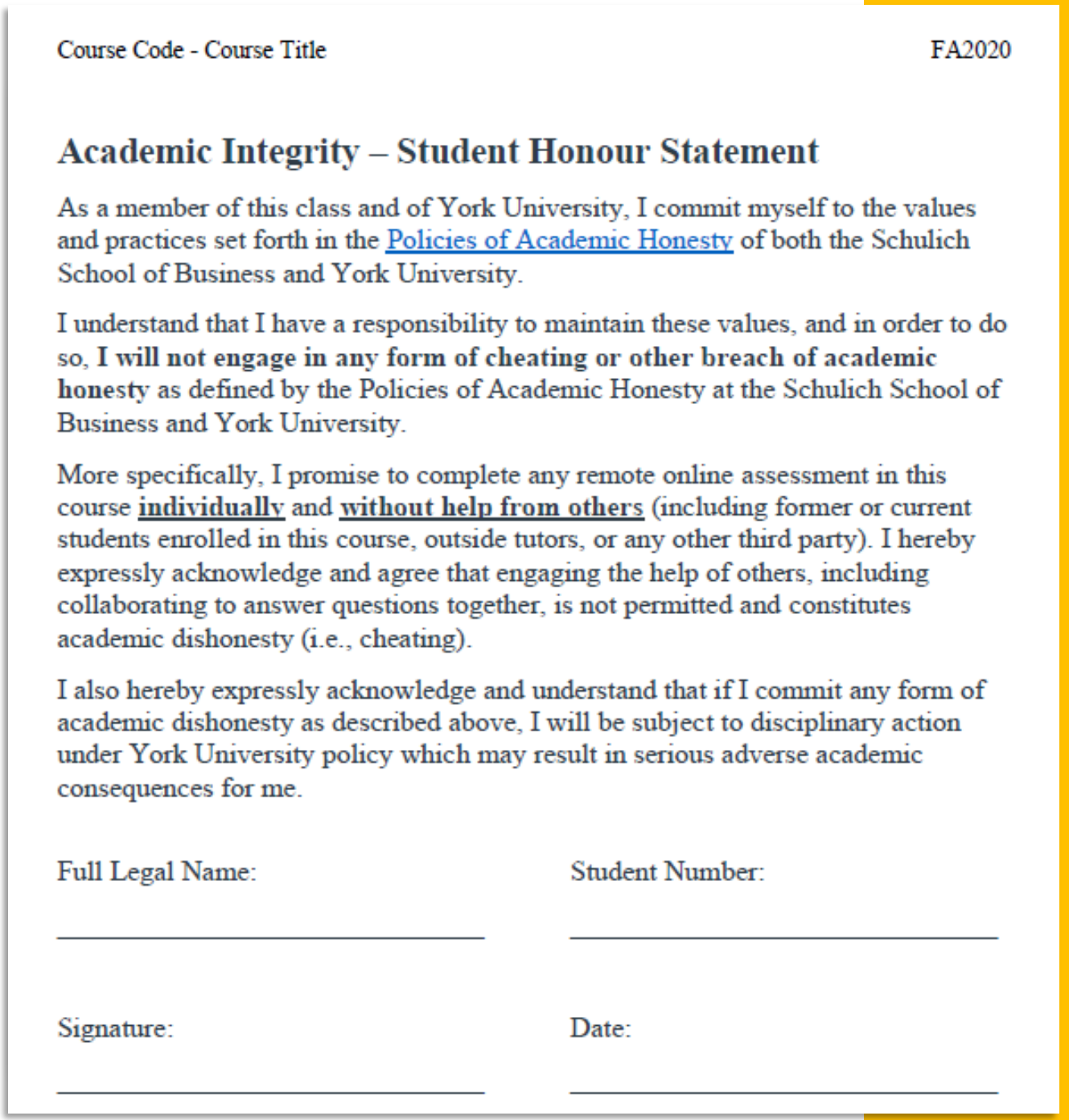
Academic Honour Statement

(for recitation by instructor and signing by students at outset of course)

Canvas Course Set Up:
Option to include the Word / PDF file within a Canvas 'assignment' (worth 0% of final grade). Intended for students to **download**, **sign**, and **upload** to complete.

Includes:

- Course code, title, and term.
- A link to Schulich's Academic Honesty Policy.
- A promise to understand and uphold the policy.
- A promise to complete online assessments **individually** and **without help from others.**
- Acknowledgment of potential disciplinary action for committing any form of academic dishonesty.
- Signed student name, number, and date.



Course Code - Course Title FA2020

Academic Integrity – Student Honour Statement

As a member of this class and of York University, I commit myself to the values and practices set forth in the Policies of Academic Honesty of both the Schulich School of Business and York University.

I understand that I have a responsibility to maintain these values, and in order to do so, **I will not engage in any form of cheating or other breach of academic honesty** as defined by the Policies of Academic Honesty at the Schulich School of Business and York University.

More specifically, I promise to complete any remote online assessment in this course **individually** and **without help from others** (including former or current students enrolled in this course, outside tutors, or any other third party). I hereby expressly acknowledge and agree that engaging the help of others, including collaborating to answer questions together, is not permitted and constitutes academic dishonesty (i.e., cheating).

I also hereby expressly acknowledge and understand that if I commit any form of academic dishonesty as described above, I will be subject to disciplinary action under York University policy which may result in serious adverse academic consequences for me.

Full Legal Name: _____ Student Number: _____

Signature: _____ Date: _____

Turnitin Reference and Academic Honour Statement

(for inclusion in exam and assignment instructions)

Canvas Course Set Up:
The following text exemplifies language that can be included in the 'description' field of Canvas assignments or quizzes, and / or embedded in the instructions page of the assignment or exam file.

Your submitted Assignment will be subject to automatic review via *Turnitin*, which will identify instances of plagiarism and any unusual similarities among student responses for further investigation.

By completing and submitting this Assignment on Canvas, you are expressly agreeing to the following:

Academic Integrity – Student Honour Statement

"As a member of this class and of York University, I commit myself to the values and practices set forth in the Policies of Academic Honesty of both the Schulich School of Business and York University. I understand that I have a responsibility to maintain these values and, in order to do so, ***I will not engage in any form of cheating or other breach of academic honesty*** *as defined by the Policies of Academic Honesty at the Schulich School of Business and York University.*

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I also hereby expressly acknowledge and understand that, if I commit any form of academic dishonesty as described above, I may be subject to disciplinary action under York University policy which may result in serious adverse academic consequences for me."

Example Exam Instructions with Student Completion & Submission Expectations

1 of 2

Midterm Instructions - Must Read

Alex Fisher

Jul 20 at 4:21pm

1. **This remote, open-book, midterm examination (assessment) will be timed and comprise 3-5 questions.**
2. The assessment will be a mix of technical (numerical and/or analytical), qualitative (discussion), and a case scenario, covering all lectures (inclusive and cumulative) including all readings, lectures, handout material, and postings on Canvas.
3. The assessment will be accessible for download through Canvas at 6:30pm (EST), completed remotely within the restricted time provided, and submitted for marking through Canvas by 8:10pm (EST).
4. Students will have **90 minutes to complete** the assessment and an additional **5 minutes to download** the assessment from Canvas and **5 minutes to upload** the completed assessment back onto Canvas as well as email a back-up to their instructor - for a **total completion time of 100 minutes**.
5. Late submissions will not be accepted and therefore will receive a mark of zero (nil) – no exceptions.
6.

Action	Task	When	Time
Download	Download, Save & Read Instructions	6:30pm EST	5 Minutes
Write	Start Writing	6:35am EST	90 Minutes
	Stop Writing	8:05pm EST	
Upload	Upload Response to Canvas & Email	8:05:01pm EST	5 Minutes
			100 Minutes

Example Exam Instructions with Student Completion & Submission Expectations

2 of 2

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- **STOP WRITING AT OR BEFORE 8:05PM EST AND IMMEDIATELY START UPLOADING YOUR RESPONSE TO CANVAS. Canvas will NOT accept submissions ON or AFTER 8:10PM EST.** Therefore, you must click submit in Canvas **BEFORE 8:10PM EST**. Sending your instructor an email is **NOT**an override or substitution to the Canvas submission. Email submission are only meant to accommodate for technical issues that may arise in Canvas **WITHIN** the stipulated timeframe (i.e., before **8:10PM EST**).

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- An email submission will be considered based on the time the email is received by the instructor **not** the time the email was sent by the student.

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- If you experience technical issues in Canvas, you will need to immediately email **askit@yorku.ca** (mailto:askit@yorku.ca) and your instructor. You must obtain email confirmation York IT about the technical issue – York IT can validate whether or not a technical issue arose in Canvas and provide confirmation of the matter.

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You must:

- Complete this assessment without help from others (i.e., it must be completed individually and independently) but you may refer to your textbook and personal notes (i.e., it is open-book).
- Submit all answers in the word document provided. Images or PDF file submissions are not acceptable.
- You may use excel to perform calculations but must copy & paste the calculations back into this word document. Only this word document will be marked.
- Make any necessary assumptions and be sure to state your assumptions in your answer.
- Show all calculations. A correct answer without supporting calculations will not receive full marks.
- Save and label this word document using your complete legal name and student number (i.e., first name, last name, student number), and
- Upload the word document provided, with your response, to Canvas and email a back-up to your instructor by the specified required times.

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Note: To support academic honesty, Canvas automatically processes your submitted completed assessment through Turnitin. Any unusual similarities among student responses will be identified for further investigation.

Sample Online Assessments and Reported Academic Integrity Issues (Summer/Fall 2020)

Relatively Well-Designed Assessments

Open-book, case study (developing data management policy)

- specified company; individually articulated issue identification, analysis, recommendations & implementation

Suggestions: Turnitin; "Honour statement" (emphasizing personal career development); provide alternative case-study choices (different companies, stakeholder perspectives); set early topic-choice deadline with required instructor approval and scaffolded submission deadlines (initial and final drafts).

Open-book, essay assignment (identifying optimal theory in textbook)

- individual reasoning / evidence-based application; no external resources permitted

Suggestions: Turnitin (emphasizing plagiarism-recognition capabilities as deterrent); consider allowing access to external resources & framing question with specific application parameter – e.g. 'how does factor X affect your conclusion & why is that so?')

Problematic Assessments

Closed-book, time-limited multiple-choice or calculation-oriented questions with specific correct answers

- answers shared in private group chats and on WhatsApp during timed quizzes

Suggestions: randomize questions (question sequencing & slight data variations); shorten allocated completion times; require individual explanation of calculations - when? why?; reverse-engineer questions – e.g. 'how did we reach this answer?'

Open-book, predictive modelling and programming questions

- answers discussed by conference call and in group chats prior to submission; program designs & format layouts were shared

Suggestions: Turnitin (emphasizing similarity-recognition as deterrent); shorten completion times; require individual mapping and layout explanations.

Calculation Assessments – Cash Flows Example [Before]

Question 1:

"Prepare, in good format, using the indirect method, a statement of cash flows."

(Additional data & financial statements were provided.)

Statement of Income
For the Year Ended December 31, 2019

Sales	$1,900,000
Cost of goods sold	980,000
Gross Profit	920,000
Depreciation expense—capital assets	200,000
Depreciation expense—patents	27,000
Other operating expenses	197,000
Interest expense	160,000
Loss on sale of land	100,000
Income before taxes	236,000
Income taxes	70,800
Net Income	**$ 165,200**

Statement of Financial Position
December 31, 2019

Assets	2019	2018
Current		
Cash	$ 405,200	$ 200,000
Accounts Receivable	180,000	350,000
Prepaid Expenses	460,000	320,000
Inventory	2,336,000	2,090,000
Non-Current		
Property, Plant, and Equipment	880,000	800,000
Less: Accumulated Depreciation	(760,000)	(560,000)
Patents (net)	192,000	219,000
Total Assets	**$3,693,200**	**$3,419,000**
Liabilities and Shareholders' Equity		
Current		
Accounts Payable	$ 389,000	$ 265,000
Accrued Liabilities	160,000	240,000
Dividends Payable	80,000	80,000
Income Taxes Payable	27,000	42,000
Non-Current		
Note Payable	180,000	560,000
Bonds Payable	900,000	400,000
Common Shares	1,600,000	1,600,000
Retained Earnings	357,200	232,000
Total Liabilities & Shareholders' Equity	**$3,693,200**	**$3,419,000**

Example Cash Flow Statement

	Company A		Company B		Company C	
	2018	2017	2018	2017	2018	2017
Operating activities						
Net income	$ 8,000	$ 8,000	$ 8,000	$ 8,000	$ 8,000	$ 8,000
Depreciation	$ 3,000	$ 2,000	$ 2,200	$ 2,000	$ 2,100	$ 2,000
Loss (gain) on disposal of non-current assets	-$ 100	$ -	-$ 200	$ -	$ 700	$ -
	$ 10,900	$ 10,000	$ 10,000	$ 10,000	$ 10,800	$ 10,000
Increase in accounts receivable	-$ 500	-$ 800	-$ 200	-$ 800	-$ 1,500	-$ 800
Increase in inventory	-$ 500	-$ 500	-$ 100	-$ 500	-$ 2,000	-$ 500
Increase in accounts payable	$ 400	$ 600	$ 100	$ 600	$ 900	$ 600
Net cash provided by operating activities	**$ 10,300**	**$ 9,300**	**$ 9,800**	**$ 9,300**	**$ 8,200**	**$ 9,300**
Investing activities						
Proceeds from disposal of property, plant, and equipment	$ 500	$ -	$ 500	$ -	$ 1,200	$ -
Purchases of property, plant, and equipment	-$ 23,500	-$ 20,000	-$ 8,300	-$ 20,000	-$ 4,300	-$ 20,000
Net cash used by investing activities	**-$ 23,000**	**-$ 20,000**	**-$ 7,800**	**-$ 20,000**	**-$ 3,100**	**-$ 20,000**
Financing activities						
Bank loans received	$ -	$ 7,000	$ -	$ -	$ -	$ 10,500
Bank loan payments made	-$ 500	-$ 500	$ -	$ -	-$ 4,250	-$ 1,150
Common share sale proceeds	$ 15,000	$ 5,000	$ -	$ 12,000	$ -	$ 2,000
Dividends paid	-$ 1,000	-$ 200	-$ 1,200	-$ 700	-$ 50	-$ 50
Net cash provided (used) by financing activities	**$ 13,500**	**$ 11,300**	**-$ 1,200**	**$ 11,300**	**-$ 4,300**	**$ 11,300**
Net increase in cash	*$ 800*	*$ 600*	*$ 800*	*$ 600*	*$ 800*	*$ 600*
Beginning cash, January 1	*$ 600*	*$ -*	*$ 600*	*$ -*	*$ 600*	*$ -*
Ending cash, December 31	*$ 1,400*	*$ 600*	*$ 1,400*	*$ 600*	*$ 1,400*	*$ 600*

Calculation Assessments – Cash Flows Example [After]

Question 1:

You have recently been hired as a new junior financial analyst for Investment Corp. Your manager has asked you to examine the Statement of Cash Flows for the following three separate companies which operate in the same industry. She comments that "**despite identical net incomes and total cash, there are differences in the way that each company manages its cash flows. I have some questions, I am hoping you can answer."**

(See 'Example Cash Flow Statement' from previous slide.)

	Company A		Company B		Company C	
	2018	2017	2018	2017	2018	2017
Operating activities						
Net income	$ 8,000	$ 8,000	$ 8,000	$ 8,000	$ 8,000	$ 8,000
Depreciation	$ 3,000	$ 2,000	$ 2,200	$ 2,000	$ 2,100	$ 2,000
Loss (gain) on disposal of non-current assets	-$ 100	$ -	-$ 200	$ -	$ 700	$ -
	$ 10,900	$ 10,000	$ 10,000	$ 10,000	$ 10,800	$ 10,000
Increase in accounts receivable	-$ 500	-$ 800	-$ 200	-$ 800	-$ 1,500	-$ 800
Increase in inventory	-$ 500	-$ 500	-$ 100	-$ 500	-$ 2,000	-$ 500
Increase in accounts payable	$ 400	$ 600	$ 100	$ 600	$ 900	$ 600
Net cash provided by operating activities	**$ 10,300**	**$ 9,300**	**$ 9,800**	**$ 9,300**	**$ 8,200**	**$ 9,300**
Investing activities						
Proceeds from disposal of property, plant, and equipment	$ 500	$ -	$ 500	$ -	$ 1,200	$ -
Purchases of property, plant, and equipment	-$ 23,500	-$ 20,000	-$ 8,300	-$ 20,000	-$ 4,300	-$ 20,000
Net cash used by investing activities	**-$ 23,000**	**-$ 20,000**	**-$ 7,800**	**-$ 20,000**	**-$ 3,100**	**-$ 20,000**
Financing activities						
Bank loans received	$ -	$ 7,000	$ -	$ -	$ -	$ 10,500
Bank loan payments made	-$ 500	-$ 500	$ -	$ -	-$ 4,250	-$ 1,150
Common share sale proceeds	$ 15,000	$ 5,000	$ -	$ 12,000	$ -	$ 2,000
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Net cash provided (used) by financing activities	**$ 13,500**	**$ 11,300**	**-$ 1,200**	**$ 11,300**	**-$ 4,300**	**$ 11,300**
Net increase in cash	*$ 800*	*$ 600*	*$ 800*	*$ 600*	*$ 800*	*$ 600*
Beginning cash, January 1	*$ 600*	*$ -*	*$ 600*	*$ -*	*$ 600*	*$ -*
Ending cash, December 31	*$ 1,400*	*$ 600*	*$ 1,400*	*$ 600*	*$ 1,400*	*$ 600*

Respond to each of following questions. **Be specific and ensure to briefly support your answer with reasons**.

1. Which company appears to be financing its assets primarily through debt?
2. Which company appears to be increasing sales by selling on account (i.e. selling on credit)?
3. Which company appears to be slowing payment to suppliers?
4. Which company is the most committed to growth?
5. Which company had no net free cash flow in 2018?
6. Which company purchased land by exchanging/issuing shares (i.e. a non-monetary transaction)?
7. If you were a shareholder wanting to receive cash dividends but were not too interested in owning shares for a long time, which company's shares might you consider buying?

Suggestions to Enhance Academic Integrity regarding QUANTITATIVE Questions with Specific Answers (multiple choice & calculation-oriented questions)

- ***Easier Questions (In Closed-Book Timed Exams):*** Reduce completion times for relevant questions to preclude access to supplementary resources.
- ***More Difficult Quantitative Questions*:** Request commentary on 'when', 'why' and 'how' to use certain calculations, alongside final answer.
- ***Work Backwards*:** Require students to demonstrate their understanding by reverse-engineering a problem. Ex: 'Here is the final answer. How did we get there?' or 'How is this variable used to achieve outcome "X"?'
- ***Randomize*:** Slight variations in *data sets, question sequences & exam facts,* using similar calculations to produce different, but correct, results.
- ***Formative 'Low Stakes' Practice Problems*:** Provide student opportunities to complete practice problems for low percentage marks in preparation for midterm & final assessments (perhaps, as asynchronous activity to augment participation marks).
- ***Turnitin:*** Use to compare calculations, code, comments, layouts, etc.

Suggestions to Enhance Academic Integrity regarding QUALITATIVE Questions

- ***Short-Answer Questions***:
  - Use **'open-ended' questions** (i.e., how? when? where? why?) to solicit individual expression of ideas that relate to practical applications of terminology and/or significance of concepts pertaining to your course learning objectives.
    - E.g. "Explain how the concept of 'duty of care' can impose liability on management of a corporation and provide an example of how potential liability of this type has arisen in relation to the COVID-19 pandemic."
  - Present brief fact scenarios with given outcomes, and ask students to **work backward** to identify key concepts and explain why outcomes occurred.
- ***Essay Questions***:
  - Consider creating **external research** questions framed in context of **current societal and/or business-oriented events** that apply course learnings, but are not covered directly in course resource materials.
    - E.g. Over the past 3 months, the COVID-19 pandemic has caused our provincial government to temporarily change certain employment laws in Ontario. Identify one such change and explain, with reasons, whether you think that change was warranted. based on the foundational principles underlying our Canadian legal system discussed at the outset of this course.
- ***Turnitin:*** Use as a deterrent, specifying the ability to identify plagiarism & unusual similarities in text of student responses.

Alternative Types of Assessments to Encourage Unique Answers

Open Book Assessments

- Encourage students to select individual topics of interest.

- Require application, analysis, synthesis, evaluation or creation.

Presentations & Oral Exams

- Clear when student knows their content or not.

- Difficult to plagiarize or cheat.

Scaffolding Assignments

- Submit early drafts for feedback and practice.

- Students start thinking earlier and build out pieces of an assignment.

- Unique work & less time pressure.

Case Studies

- Consider solutions from different roles / stakeholders to the same challenge.

- Randomly assign students to different cases or initial data.

Alternative Types of Assessments to Encourage Unique Answers

Discussion Boards

- If graded, encourage more points for thoughtful answers with analysis / explanation / interpretation.

- Option to hide earlier responses until student posts their own as well.

Group Work & Peer Assessment

- Encourage working together if applicable and in support of LOs

Research Papers

- Encourage students to select individual topics of personal interest.

- Require citations and a bibliography.

Canvas Quizzes

- Shuffle pre determined answers

- Randomized question banks

Canvas Quiz Settings: Tips & Considerations

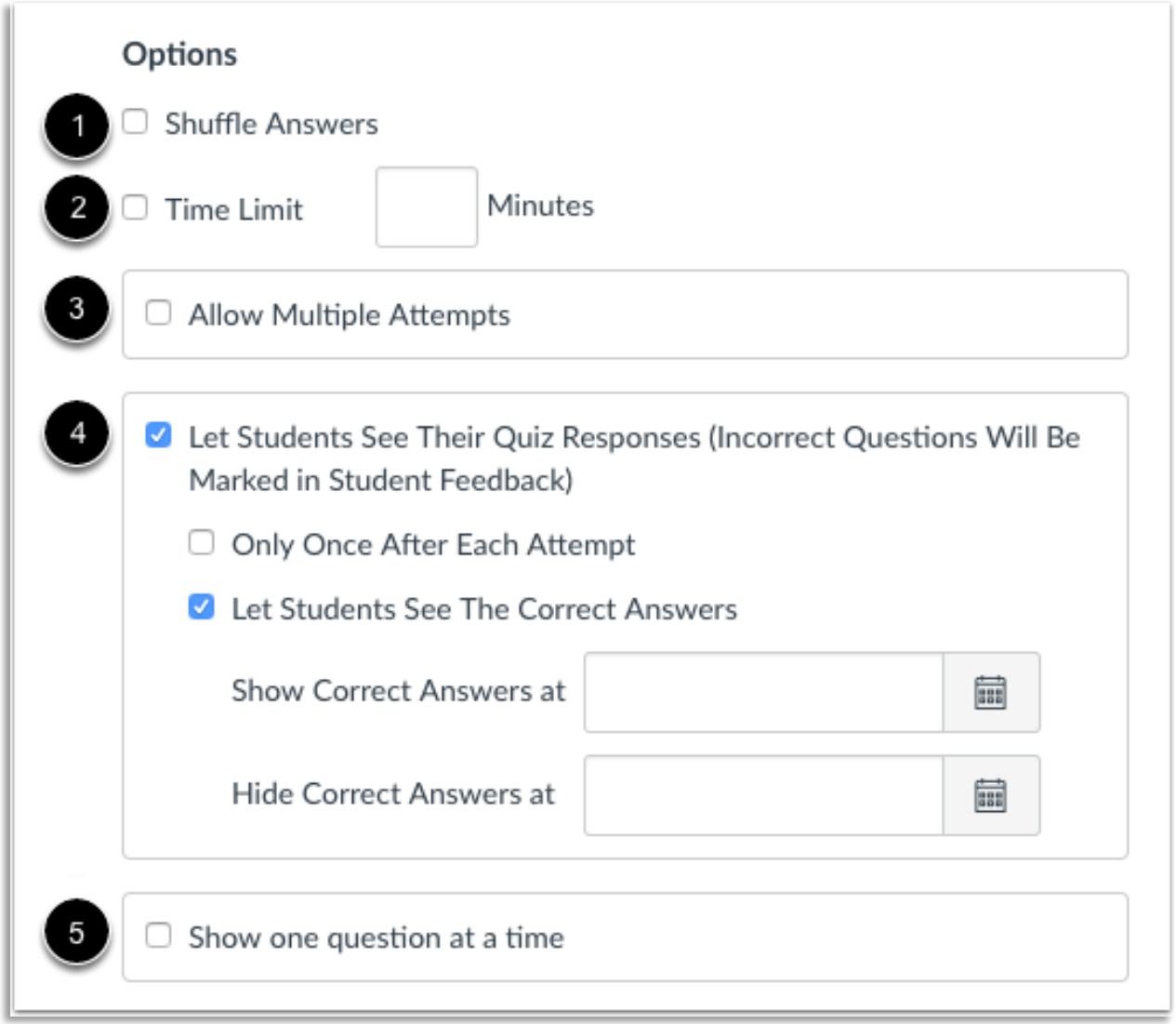
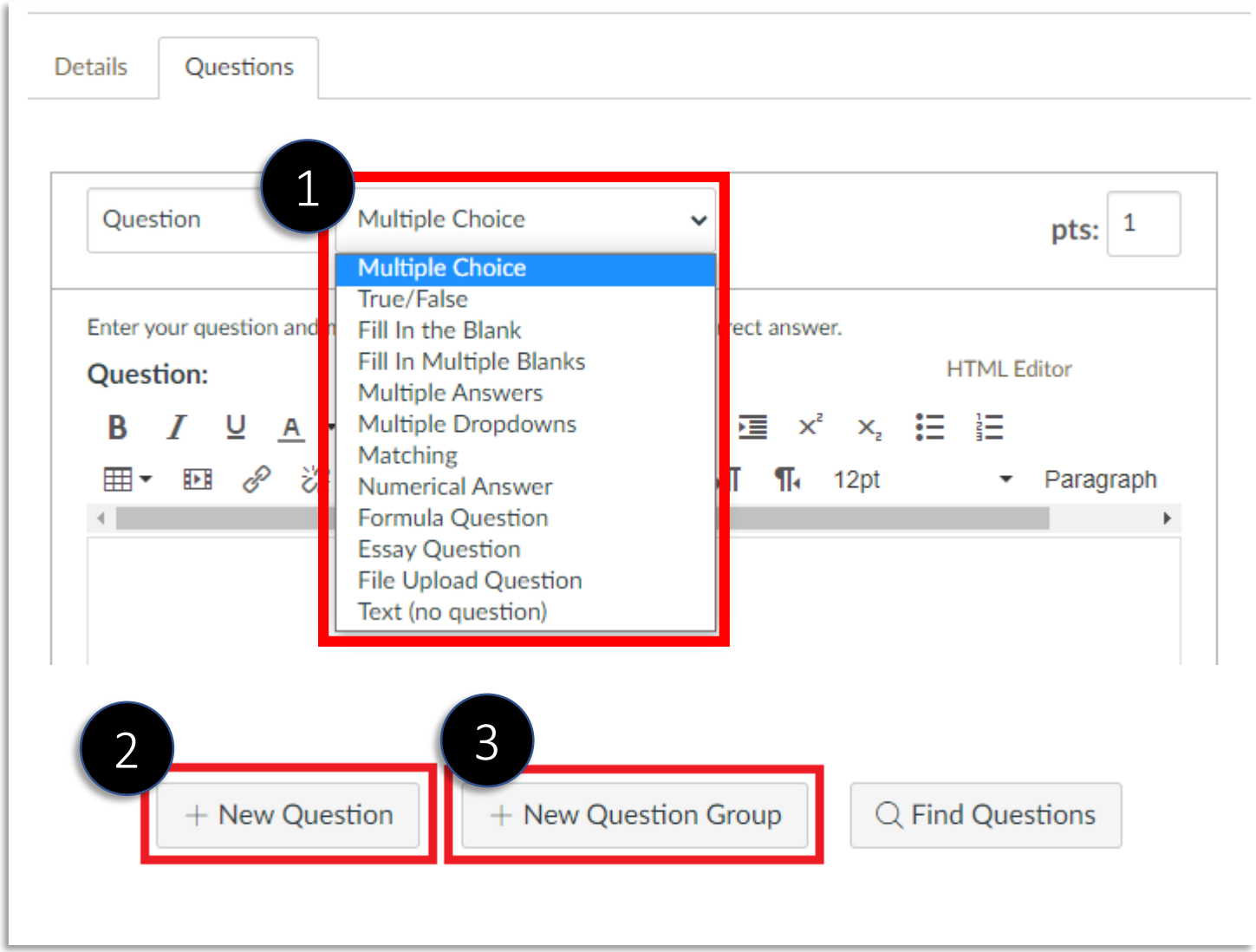


Image Source: Adapted from Canvas Community, 2020.

Canvas Quiz Settings:

1. **Shuffle Answers:** Option to scramble pre determined answers such as multiple choice.
   Note: Avoid answers that are dependent.
   Ex: 'D: All the above' may not apply if scrambled.
2. **Time Limit:** Number of minutes students will have to complete the exam.
3. **Allow Multiple Attempts:** Ideal for **ungraded** assessments (i.e. knowledge checks / practice).
4. **Let Students See Their Quiz Responses:** Option to provide immediate feedback, or delayed viewing answers until **all** students have taken the exam.
5. **Show one Question at a Time:** Ideal for sequential questions that may reveal earlier answers.
   Note: Showing one question at a time may cause loading delays for each question, depending on the student's internet connection. This can add additional stress, especially if there is a time limit.

Canvas Quiz Questions: Tips & Considerations



Canvas Quiz Question Options:

1. **Question Type:** You can create the highlighted list of question types.

Note: Preset questions ('multiple choice', 'true/false', etc.) are graded automatically. Questions that require review ('essay question') require credit to be manually assigned on review.

2. **New Question:** Add as many new questions as needed from the list of available question types.

3. **New Question Group:** Optionally add question groups. Includes an option to randomize the number of questions students will see within each question group.

Canvas Quiz & Assignment 'Access Window': Tips & Considerations

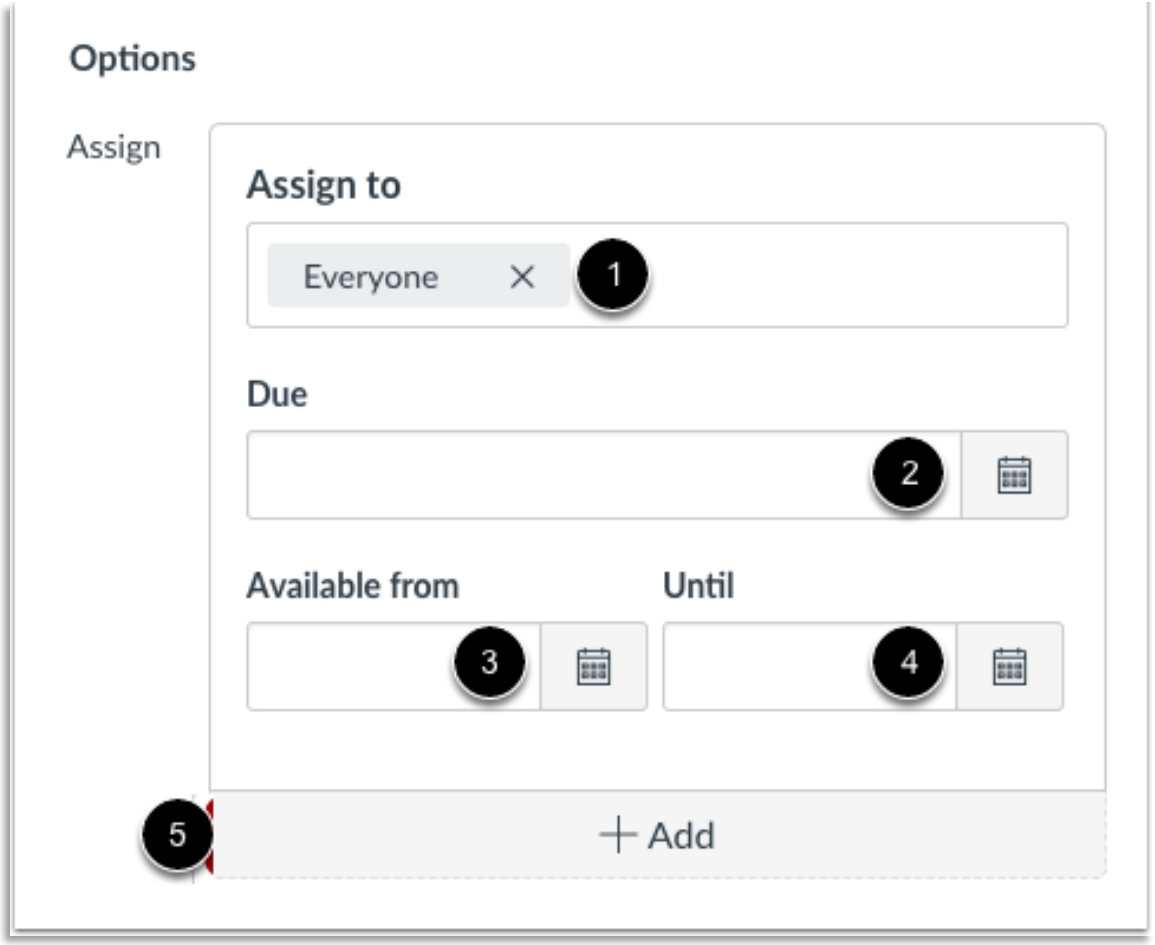


Image Source: Adapted from Canvas Community, 2020.

Quiz and Assessment 'Assign' Settings:

1. **Assign To:** You can assign a quiz / assignment to everyone in the class, or to individual students.
2. **Due:** Date and time the quiz / assignment is due.
3. **Available From:** Date and time when the quiz / assignment will become available to students.
4. **Until:** Date and time when students can no longer access the quiz / assignment.
5. **Add:** Optionally add separate 'access windows' for individual / groups of students. Examples:
   - Student presentations due on different dates.
   - Assisting student accommodations as needed.

Note: Ideal to assign the same 'access window' to **all** students to reduce risk of academic dishonesty.

Additional Resources

Teaching & Learning Site:

- Online Course Design Guide – Assessments
- Making Use of the Often Overlooked Open-Book Exam

Canvas Online Course Delivery Guide:

- Using Canvas Assignments to Deliver Open Book Exams
- Introduction to Quizzing in Canvas
- Remote Proctoring Guide (with ADAO approval)

Online Canvas Community:

- What options can I set in a quiz?
- How do I create a quiz with individual questions?
- Create a quiz with a question group to randomize quiz questions

IT Medic: Canvas & Zoom Inquires

Audience Q/A