

# Quick Guide to

### CCCA ACCIONAL ENGINEERING EDUCATION ASSOCIATION

# **Remote Assessment**

This guide provides support for assessment planning and design for remote course delivery in engineering (although most principles apply equally to in-person delivery). It provides a starting point to help frame thinking and identify key resources as part of holistic course design. To continue the conversation on this topic, visit the Remote Assessment Discussion Forum thread.

#### Initial questions to ask yourself

- What is the intent of the assessments you are planning? (consider the points in the box to the right)
- Do the assessments align with the intended learning described in your learning outcomes and the learning activities you will have students participate in?
- What data will the assessments give you, how will you use it, and how do you know you can trust it?
- Are the assessments practical for you, the students, any graders, and others in the course? Here consider factors such as workload, resources and technology required, time to administer and return, and so on.

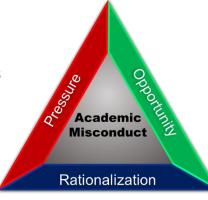
#### Assessment is not just about grades

Remember to consider the multiple roles assessment can play:

- **Feedback**: assessment feedback lets students (and instructors) know how they are doing and adjust and adapt their study (and teaching) efforts and methods.
- **Learning:** the act of recalling information and applying it is a powerful learning tool.
- **Motivation**: assessments provide students extrinsic motivation to study, and it holds them accountable to their course and peers.
- **Evaluation**: assessments are used in measuring student (and instructor/program) performance.

#### Elements influencing misconduct

- Pressure on students, whether through competition for high grades or pressure to pass
- **Rationalization** by students that misconduct is acceptable (e.g. "everyone's doing it") or that potential rewards outweigh the risks
- Opportunity exists for students to engage in misconduct



# Strategies to enhance integrity

- Reduce pressure: more low-stakes assessments;
  flexible grade weighting; less focus on grades
- Reduce rationalization: integrity pledges; clear communication of expectations and consequences
  - **Reduce opportunity:** limited exam time and access; randomized questions; high-level questions; use of online proctoring tools

# A survey of some common assessment types to consider

|   |                            |                    |                  | Typical assessment use by content / course type    |                                     |   |   |
|---|----------------------------|--------------------|------------------|--|-------------------------------------|---|---|
| Assessment approach   | Where<br>most<br>effort is | Authen-<br>tic for | Scala-<br>bility | Analysis /<br>modeling (e.g.<br>electric circuits) | Content-rich<br>(e.g.<br>economics) | Communication-<br>intensive (e.g.<br>tech. comm.) | Process (e.g.<br>design or<br>lab)              |
| <b>Automatically graded test/quizzes:</b> built into most LMSs; available for auto-graded mathematics <sup>1</sup> , code <sup>2</sup>                      | High<br>before             | Varies<br>on use   | High             | •  | •                                   | -   | 0   |
| <b>Oral exam/presentation:</b> instructor- or TA-assessed; can supplement other assessments; individual or team   | Med<br>during              | Presena<br>-tion   | Low              | 0  | •                                   | •   | •   |
| <b>Written exams/reports/essays</b> : all can be unproctored / take-home <sup>3</sup> ; exams proctored through service <sup>4</sup> , or Zoom <sup>5</sup> | High<br>after              | Varies<br>on use   | Med              | •  | •                                   | •   | <ul><li>● (exams)</li><li>● (reports)</li></ul> |
| <b>Digital poster/video presentation:</b> individual or team; upload to LMS; can use peer assessment <sup>6</sup>   | Med<br>after               | Varies<br>on use   | Med              | -  | •                                   | •   | •   |
| <b>Design project:</b> individual or group; product often assessed via reports/presentations and peer assessment  | Med<br>ongoing             | Open-<br>ended     | Med              | •  | ● (case study)                      | •   | •   |
| <b>Peer-graded artifact:</b> peer-assessment of student work; can compliment or replace instructor/TA assessment <sup>6</sup>                               | Med<br>before              | Most<br>cases      | High             | 0  | •                                   | •   | •   |
| <b>Peer-assessment:</b> often used after group work for feedback and evaluate individual contributions <sup>7</sup>   | Med<br>after               | Group<br>work      | High             | -  | -                                   | (if teams used)                                   | •   |
| <b>Self-assessment:</b> self-reflection of own performance via rubric or comparing to exemplars (typically formative)                                       | Low                        | Most<br>cases      | High             | •  | •                                   | •   | •   |
| Legend: ● typical use case ● often used C   | usable wit                 | h limitatio        | ns/effort        | - typically challe                                 | nging to use                        |   |   |

#### Links to examples to consider

- 1. WeBWorK
- 2. <u>Autogradr</u> | <u>Codepost</u> | <u>Moss</u> (software plagiarism)
- 3. <u>Turnitln</u> | <u>Crowdmark</u> | <u>Gradescope</u>
- 4. Examity | ProctorU | Proctor Track | Proctorio

- 5. Detailed guide through **UBC SKYLIGHT** group
- 6. FeedbackFruits | AROPA (free) | PeerScholar | ComPAIR (free GitHub)
- 7.  $\underline{\mathsf{ITPMetrics}}$  (free) |  $\underline{\mathsf{CATME}}$  |  $\underline{\mathsf{Teammates}}$  (free) |  $\mathsf{iPeer}$  (free  $\underline{\mathsf{GitHub}}$ )

