

## Controlling Cheating in Online Courses: A Primer

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### How can you help your students decide not to cheat?

According to studies of cheating, the best prevention is low-tech and old-fashioned: help your students love the process of learning. Students are honest when the emphasis of the course is on learning rather than competition, when they feel the course is set up to help them learn. Teach students how to learn, to rise to challenges, and to accept struggle and failure as part of learning, and, studies say, your students will tend not to cheat.

The best learning environments address students' fears: that they will be judged rather than taught; that grades will determine their entire future; that they will have to make their entire way through the course alone.

As far as you can, even in online courses, know your students and be sensitive to any special circumstances. As [Neil Rowe of the US Naval Postgraduate School](#) says, "Understand what students face," from special educational needs to special family and work circumstances.

Regular communication with instructors and fellow students helps students feel they're in control. Use social media. Consider allowing extra collaboration and cooperation in online courses; studies have shown that students who collaborate help each other learn and discover more sophisticated problem-solving strategies than any single student would discover alone. Group and team projects also show the lowest incidence of cheating. (It can be argued that some forms of cheating, such as collaboration when the course doesn't permit it, are students' way of helping themselves learn more effectively. In [a famous example at MIT](#) in the 1990s, student programmers who weren't allowed to collaborate did so anyway—and became much more effective programmers. Collaboration is now the norm at MIT.)

Flip your courses, especially online courses. Have students read the material and hear a video lecture beforehand. Use class time for critical thinking.

Both students and instructors can foster a culture of honesty. Instructors should be clear with students about *why* they consider certain behaviors unacceptable. If you can't explain why it's unacceptable, consider letting your students do it. For example, a UCLA

professor of games theory decided to let his students cheat on the midterm, and gave them a week to decide how to cheat. [The students all used games theory—and learned.](#)

### **Who does cheat?**

It's not clear [whether students cheat more in online classes](#) than in blended or traditional ones. Some studies indicate that the level of student cheating hasn't changed much since the 1920s. It is clear, though, that [the Internet makes cheating easier](#), because all forms of information discovery and reuse are now easier.

[Some “cheating” is the result of simple confusion.](#) It's common, especially for international students, to have different ideas of what's allowed. Make your rules clear to everyone.

Different rules often hold for tutorial assignments, assessments, and exams. Make clear why that is.

[Signing an honor code may or may not make a difference](#); knowing what the code is does.

### **How do students cheat?**

Most cheating is [fairly low-tech](#).

- Students look up answers online by searching on the text of the question. (Anonymizing the title of the item doesn't help much.)
- They share answers, especially with their friends, through Google Hangouts, Google Docs, chat, Skype, emailed screenshots, or other means.
- One student buys two access codes, uses the “phantom student” to fish for answers, then submits the correct answer as himself.
- Students form a group. Each student works his way through some of the questions and shares the answers with friends.
- To get extra time or undeserved credit, a student says that he has already submitted the assignment but “the computer lost it.”
- Students hire other students to take either an entire course or, more often, only the quizzes and exams. Companies such as [wetakeyourclass.com](#) are built on this business.
- Students steal the logins/passwords of other students, or use the accounts of students who have left a public computer but failed to log out explicitly.

### **What can you do to discourage students who are contemplating cheating?**

The most effective way to discourage potential cheaters is to [make it unprofitable](#).

Mastering innately makes cheating unprofitable by making honesty more profitable.

- Give students assignments rich in Mastering tutorial problems. These problems are specifically designed to help students learn by breaking assignment items into simpler problems, so that students who are having difficulty with the whole item can get help from the item itself. Encourage students to use these hints.
- Mastering default grading is designed to reward honest work. Statistically, students who use hints when they need them get higher final grades even when professors charge a penalty for opening hints.
- Students who use Mastering tutorial hints learn more, as measured by performance on standardized exams, and are more satisfied with their experience, as measured by their own reporting. We don't like to blow our own horn too much, but we're proud of these results.

If you find a student cheating, take the trouble to follow up on it and punish the cheater appropriately.

In Mastering we have found that students typically begin to cheat at about the third week of class. Prompt action can catch them then and minimize damage to everybody:

- Once all your expected students have signed up, close the course to further enrollment.
- Watch for students who are getting low grades in the first several weeks. Intervene early to help them get back on track. It's typically the lower-performing students who are tempted to cheat.
- Watch for students who suddenly get quite high grades on assignments and take a very short time to do them, but don't do well on a pop quiz or offline assignment.
- Assign a variety of assignment item types: graphs, vocabulary matching, short essays, diagram labeling.
- Avoid multiple-choice items, which are relatively easy to cheat on and which give students the impression that learning is simply a matter of finding (or guessing, or asking a friend for) the right answer.

Students often have difficulty adjusting to online learning. The low point is also around the third week of class. Reassure them that many successful students have difficulty, that it's normal, and that they are continuing to learn. Share success stories with them.

### **How do Mastering assignment settings help make cheating more difficult?**

- In many Mastering items, the values of the variables can be randomized, so that students must know how the answer is calculated in order to give a correct answer.
- Mastering assignments can be pooled...
- ...or assigned with a time limit. In timed assignments, students cannot open another assignment without losing all remaining time. The timer continues to count down even if the student leaves Mastering.
- Separate assignments can be given to separate groups of students.

- The order of questions in an assignment can be randomized.
- Item titles can be anonymized, though this doesn't help much as long as students can search the Internet by keywords.

The Mastering assignment categories “Quiz” and “Test” have most of these features set up by default. For full details, see the video “[Mastering Security Features](#).”

### **What other anti-cheating features does Mastering have?**

- In Mastering, students submit assignments and tests answer by answer, not all at once. For that reason, it's not possible for “the computer to lose” an entire test or assignment.
- Mastering keeps track of the date and time each answer is submitted, down to the second. The record of the time of each answer a student has ever submitted is available by request from Customer Service. This makes it easy to point out to a student that he did not log in at times when he said he completed an assignment.
- The same feature helps to compare submission times between students and to catch phantom students.
- IP addresses used by student accounts are available from Customer Service in connection with an active investigation.
- Pearson searches constantly for sites that post answers to questions and takes prompt action to shut them down. If you find such a site, you can report it yourself at [http://www.pearsoned.com/report\\_piracy\\_form/](http://www.pearsoned.com/report_piracy_form/) (Please help other instructors and yourself by *not* posting the answers to Mastering questions.)

### **Personalized learning**

The most difficult kinds of assignments to cheat on are personalized assignments. Mastering provides two different types of personalized, individualized learning, Adaptive Follow-Up Assignments and Dynamic Study Modules.

These are extremely effective learning tools for the honest student. Adaptive Follow-Ups are also difficult to cheat on because the material in them may be different for each student (though questions that teach basic, difficult material tend to show up for many students).

They help to discourage cheating. For example, students who cheat on a Parent assignment fall further and further behind with each Adaptive Follow-Up.

Both of these assignment types are now available for selected Mastering disciplines and textbooks.

- Adaptive Follow-Ups are graded assignments. If they're available for your textbook, you will see a banner at the top of your Assignments page.

- Dynamic Study Modules are now available for study; they will be assignable for a grade in a future Mastering release. If they are assignable for your students, students see the Dynamic Study Module at the top right of their Course Home screen.

For full details see the videos on Adaptive Follow-Ups and Dynamic Study Modules and the online Help.

### **How about cheating on exams?**

Repeated studies have shown that the temptation to cheat is particularly great in final exams.

Lock-down browsers do not work and we don't recommend them. (Search the Internet for "lock-down browser" to see many ways to get around them—and those are only the ways that students have shared.)

Comparative studies have shown that [the most secure exams are human-proctored exams](#) with a paper and pencil. When that's not feasible, proctor as strictly as possible. The following may work if you know that the students' hardware supports them:

- Make final exams available for a relatively short period of time.
- Ask students to scan and email the rough calculations that they made as they took the exam.
- Password exams.
- Include at least one critical-thinking essay question.
- Use other security features such as requiring students to submit a picture of their face via Webcam as they begin the exam.

### **Can I use my own material?**

Especially on final exams, consider giving your students new material that you have developed yourself. Mastering lets you create your own content, in all of the question types that it supports, using the same system as our own authors use.

For training on creating and customizing content, contact [jennifer.halcomb@pearson.com](mailto:jennifer.halcomb@pearson.com) or [sarah.w.r.smith@pearson.com](mailto:sarah.w.r.smith@pearson.com). For one-off or Organic Chemistry authoring training, contact [sarah.w.r.smith@pearson.com](mailto:sarah.w.r.smith@pearson.com).