

## IT SUPPORT CENTER

# Best Practices for On-Line Academic Integrity

Below you will find a list of best practices and techniques for supporting academic integrity when designing and delivering an on-line course.

### Use question sets to randomly generate quizzes or exams for each student.

Using questions sets to randomize quizzes and exams has several advantages. Each student is presented with a unique test which makes it very difficult to collaborate with other students during the exam. It also deters students from copying their question set and passing it along to their peers who may not have started the exam yet.

- Learn how to do this in Moodle: [Adding Random Questions](#)

### Randomize multiple choice quiz or exam answers for each student.

Moodle allows you to randomize the answer order for multiple choice questions. This feature makes it more difficult for students to share answers if they are presented with the same question. Combining question sets and randomization of answers is a very effective technique.

- Learn how to do this in Moodle: [Adding/Updating Questions: Display Section—Shuffle Questions and Answers](#)

### Limit the duration, number of attempts, and how the questions are delivered.

When you limit the duration of a quiz, it diminishes the time that a student can spend looking up answers. Delivering one question at a time can prevent copying or printing of the exam. Limiting the number of attempts can help prevent collaboration and ensures that students don't have multiple attempts to answer the same question sets.

- Learn how to do this in Moodle: [Adding/Updating Questions: Timing Section—Time Limit, Attempts allowed](#) as well as the [Questions per page of the Display section](#)

### Limit the availability period of an exam.

If an exam has a long availability period, it's possible for a few students to take the test early on and share the questions/answers with other students who have not yet taken the exam.

- Learn how to do this in Moodle: [Adding/Updating Questions: Timing Section—Time Limit](#)

### Wait until the exam availability period ends before providing exam feedback.

Prevent students from seeing which questions they missed until all students have taken and submitted the exam.

- Learn how to do this in Moodle: [Adding/Updating Questions: Review Section](#)

### Use “calculated questions” when constructing quizzes or exams that involve mathematical expressions.

Calculated questions are designed using variables. Random values, based on a user specified range, are automatically generated for each variable in the question.

- Learn how to do this in Moodle: [Calculated Question Type](#)

### Employ the use of browser “lock-down” software to reduce access to other software applications and data.

Programs commonly referred to as lock-down browsers can be purchased that lock down the testing environment within learning management systems. These programs prevent students from printing, copying, visiting other websites, or accessing applications during an exam. These applications are not considered to be

fool proof, but they can deter most students from cheating.

- Learn how to do this in Moodle: [Adding/Updating Questions: Security Section](#)

### **Adjust the weight of exams relative to the overall grade in the course, while increasing the weight of project and assignment activities.**

Assigning higher point values or percentages to assignments and projects helps offset the grading weight generally associated with exams.

- Learn how to do this in Moodle: [Category Aggregation](#)

### **Increase the number of open-ended or essay-style exam questions.**

Open-ended questions generally require students to have a greater understanding of the material and make cheating more difficult.

- Learn how to do this in Moodle: [Moodle Essay Questions](#)

### **Increase the frequency of short notice (pop) quizzes.**

By providing short notice (pop) quizzes during the semester, students have less time to coordinate the sharing of answers during the quiz.

### **Require students to agree to an honor statement, and make them aware of the academic integrity policy and procedures.**

Question 1 of a quiz or exam could be set up as a yes/no answer to "I have read and understand the [Academic Integrity Policy and Procedures](#) of Indiana University of Pennsylvania as defined in the Undergraduate Catalog." In Moodle, an honors statement could be displayed in the introductory section of the quiz. Another way to reinforce academic integrity is to have students sign a contract emphasizing the university's academic integrity policy and outlining consequences for violations.

- Learn how to do this in Moodle: Create a quiz as suggested above.

### **Establish an alumni-based proctoring model.**

Establish a model where graduates of your program can apply to become a "certified proctor" for your program. When exam proctoring is necessary for students at a distance, the department could assign a "certified proctor" that is located in a similar geographic area of the student. The student and certified proctor would need to work out a meeting location and date/time. One possible location could be a public library located geographically between the student and proctor.

### **Make students aware of Moodle's tracking and logging abilities.**

If students understand that their actions within Moodle are recorded in log files, they will be less likely to attempt to circumvent the technology. You can contact the IT Support Center for questions regarding student tracking and student activity logging.

- Learn how to use Moodle Reports: [Reports](#)

### **Remote Proctor Technologies**

Some remote proctoring or "robot" technologies can be purchased to assist in remote proctoring through the use of video or biometric technology. Webcams have also been used to proctor on-line exams. Some universities have developed their own remote proctoring services for on-line courses.

### **Moodle Quiz recommendations**

The Moodle documents website offers an article on [Effective Quiz Practices](#) for help with academic integrity.

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