

**Guidelines to Reduce the Risk of Cheating in Online Examinations:**

Mode of Cheating	Method(s) to Reduce it
Students obtain old exams	<ul style="list-style-type: none"> <li>• Do not send out electronic files of the exam</li> <li>• Change your exams regularly</li> </ul>
Students obtain answers to the exams before taking the exam	<ul style="list-style-type: none"> <li>• Do not post the answers to the exam until the exam deadline is over</li> </ul>
Students copy the exam while they are taking it (copy and paste into a word doc or make a screenshot) and then distribute to others in class	<ul style="list-style-type: none"> <li>• Do not keep your exams available or open for extended periods of time so that students don't have time to look up answers to questions before they take the exam.</li> <li>• Present exam questions one at a time as opposed to having all questions posted. This makes it more difficult to make a screenshot. Students would still be able to copy and paste each question into a word doc or screenshot every question individually.</li> </ul>
Students have a web browser open in another page and look up answers to questions while taking an exam	<ul style="list-style-type: none"> <li>• Do not allow students that much time. The exam should be timed and only allow enough time for students who know the material to answer the questions without looking up answers online or in notes.</li> <li>• Do not allow backtracking so that students cannot quickly go through the exam and then go back and start looking up the answers to all of the questions.</li> </ul>
Students have all of their notes open in another window and do a search (i.e. find) in their notes to look up answers as they are taking the exam	<ul style="list-style-type: none"> <li>• Time the exam more stringently. Only keep the exam open long enough for students who know the material to answer the questions based on what they know and not by looking up answers.</li> </ul>
Students who are friends can be taking the exam together either at the same time in the same room or on the phone together or one takes it while another looks up answers and then the other takes it	<ul style="list-style-type: none"> <li>• Randomize the questions and answers</li> <li>• Have a pool of exam questions so that students will not have the exact same exam</li> <li>• Stringent time limits so that students don't have enough time to look up answers</li> </ul>
Students consistently have "computer issues" and ask for you to re-open their examination after they either spent 20 minutes in the exam reviewing every question or they submitted the exam and then received all of the answers to each question (if you have it set up where they get the correct answer when the exam is submitted)	<ul style="list-style-type: none"> <li>• Make suggestions in the syllabus that students should not use wireless internet connections to take their exams</li> <li>• Suggest that students take the exam at a local or university library</li> <li>• Have a rule stated in the syllabus that you will not re-open exams</li> </ul>

**Online Exam Control Procedures (OECs).** Material adapted from Cluske, G.R. and Ehlan, C.R. "Thwarting Online Test Cheating." *J. Acad. Bus. Ethics*, pp. 1 – 7.

1. Offer an online exam only at one set time so that students in the class cannot form a team and take the exam sequentially (the first person likely getting the lowest score and others getting an A).
2. Open up the exam for a stringent period of time. If you are giving a multiple choice exam, it has been shown that approximately 45 seconds per question is more than enough time for students who know the material to be able to answer the question. You do not want to give students enough time on the exam to be able to do a google search or do a search (find tool) in their notes to get the answer. Students will not have enough time to be searching for answers if the timing is only long enough for them to answer the question.
3. Randomize the sequence of the exam questions as well as randomize the answer choices just in case students are taking the exam together on nearby computers and asking, "what did you get for question 10?"
4. Present your exam questions one at a time. By not having all of the questions on one screen, it makes taking a screen shot of the exam more difficult.
5. Present exam questions one at a time and do not allow back tracking. This will reduce the ability of students to finish the exam early and then go back to questions and do a web search or note search to find the answers.
6. Make a bank of questions. Students will get a percentage of each exam that is different from other students.
7. Students should only be allowed to access the exam ONCE. This is difficult since each semester we have students who call and say that the exam crashed in the middle of taking it. You can set a rule that there are NO EXAM RESETS and suggest that students not use a wireless internet connection to take their exam and also to not save each answer individually. If a student does have a problem, you can see how long they spent in the exam and which questions they already answered (make a print out of their exam) and then open the exam again but give them a new time limit and the questions that they can answer. BE CAREFUL – if you have the computer set so that the student gets the answer when their exam is finished. If they accidentally submit the exam before they meant to and then tell you the computer crashed (when in reality they submitted the exam), they will have gotten the answers to all of the questions at the end of their exam (this happened to me and the student sent me a screen shot and didn't realize that I saw that they received every answer.....). This is another good reason not to post answers until after the exam deadline.
8. Instructors should change at least 1/3 of the multiple choice questions on each exam every time the course is taught.
9. Design the questions so that they are not all recall questions, which are very easy to look up on a browser or do a find in their notes while taking the exam. If a good portion of the exam has higher-level questions, such as application questions, then students will not be able to find the answers using a quick google search or the find tool in the notes or online textbook – they will need to understand the material to answer the question and most typical cheating methods will not help (unless they have a friend with them that knows the material).