Cheating: Summary of Methods and Tips for Prevention Prepared by the UF College of Engineering Fall 2009

Purpose of This Document: This document is intended to make all faculty in the College of Engineering aware of cheating methods that have been recently reported to be used by engineering students and to recommend specific actions to create an environment in which cheating is inhibited and, preferably, undesirable within the student population.

Tips for Preventing Cheating

Frequent communication about cheating:

- Clearly outline what defines cheating in your classroom and what the penalties are. Introduce your stance and specific definition of cheating on the first day of your lecture, and echo this message throughout the semester. Include your policy on collaboration to complete out-of-class assignments.
- Include a statement about cheating in your syllabus: Example: "All work submitted in this course must be your own and produced exclusively for this course. The use of sources (ideas, quotations, paraphrases) must be properly acknowledged and documented. For the copy of the UF Honor Code and consequences of academic dishonesty, please refer to http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php. Violations will be taken seriously and are noted on student disciplinary records. Additionally, the following specific requirements will be expected in this class: (enter specific requirements). If you are in doubt regarding the requirements, please consult with the instructor before you complete any requirement of the course."
- Include the honor pledge on all exams and have students sign their name by the pledge.
- Provide the students a copy of the honor pledge on the first day of class. Have them stand and recite the pledge, followed by their signing their name by the pledge. Have them turn those sheets into you.
- Introduce the National Society of Professional Engineers Code of Ethics for Engineers and link the Fundamental Canons of Engineers to the expectation of their academic honesty as an engineering apprentice
 - (http://www.onlineethics.org/CMS/profpractice/ethcodes/13411/9972.aspx.
 - Alternatively or in addition to, introduce to your students your discipline-specific code of ethics.
- Follow through if you suspect or are told that students are cheating in your class. Please refer to the Dean of Students Office web site at http://www.dso.ufl.edu/sccr/faculty/ and the flowchart on the last page of this document for information on the process of seeking resolution if you suspect cheating.

Test security:

- Keep exams in secure locations.
 - o Keep all test materials in locked cabinets.
 - o If electronic, secure your computer by limiting its physical access, password protection, encryption of sensitive files, etc.
 - o Know the person who is copying the exam. Verify the number of copies made on the copy machine, and always count the number of copies when received.
- Number the exams in order to place students who are in proximity to each other who may have similar responses.

In-class exams:

- Arrive early and inspect the room, including the desktops, floor, backs of seats, bulletin boards, etc.
- Use assigned seating. Be aware of special needs of students in advance, however (left-handed, front of room, etc.). Be aware of who is sitting next to or near whom.
- Have students leave book bags, cell phones, etc. in the front of the classroom as they enter.
- Have students remove hats.
- Require students to show an ID in larger classes. Scan the crowd for unfamiliar faces.
- Give essay tests if possible. If using multiple-choice exams, create different exams by alternating the answer choices or order of questions, etc.
- Avoid open-notes exams unless you review the notes the students bring in prior to the exam.
- Avoid take-home exams.
- Consider allowing the student to bring in a "cheat sheet," e.g., an index card or single sheet of paper.
- Do not use old exam questions verbatim! Better, create a new set of questions each year. To avoid having some students feel as if they are at a disadvantage because they do not have access to old exams, consider providing old exam questions to all students.
- Make 2-3 versions of your exam, either by using different numerical values in the same problems or by changing the order of the questions. Make certain that the exams are of equal difficulty. Leaving about ¼ of the questions unchanged across exams is suggested to provide statistical comparison. Interlace the exams among the students when passing them out.
- Provide scratch paper that is an unusual color.
- Make sure the exams are a test of knowledge, not of speed.
- Ideally, proctor the exam yourself. Do not bring work to the exam but, rather, walk around the class to monitor student progress and to hinder cheating.
- If you cannot proctor the exam, always use one (e.g., T.A., graduate student, etc.). Train your proctors for behaviors of which to be aware and the process for handling suspected cheating.
- If you have a large class, hold your exam in multiple, smaller sections in different rooms that are proctored. If this is not possible, make certain the number of proctors is sufficient for a large room. Consider using covert proctors who pretend to take the exam but are actually scanning for cheating behaviors.
- Enforce a no-talking rule except for questions about typos or other similar clarification.
- Students must leave their desk and come to the proctor to ask a question. Make sure that the student does not block the proctor's view of the rest of the class, and face the class as you answer the student's question.
- If using bluebooks, collect the books from the students and mark them in a similar way (hole punch, cut a page corner, mark with an unusual colored marker, etc.). Then randomly distribute the books to the students.
- Do not allow students to leave the room during the exam.
- Students must exit the room immediately after turning in their exams.
- Have students sign answer sheets as they turn them in to verify their writing.
- Unobtrusively mark suspicious exams with a Post-It note with more detail of your observations.
- Prepare a list of each student's exam as s/he turns it in to immediately identify if a student/test is missing.

- Mark blank pages in blue books so that additional information cannot be added and submitted for re-grading.
- Scan the exams of those students who have a prior history of re-grade requests.
- Mark credit on problems with dashes (e.g., "-7") to make it more difficult to change credit values for answers (e.g., to a "17").

Writing assignments:

- Require step-by-step process for writing.
- Require students to provide first page of all sources.
- Assign interesting topics that are difficult to plagiarize.
- Use Turnitin.com (available at http://lss.at.ufl.edu) for all written assignments.

Homework assignments:

- If you grade homework assignments, create your own questions and answers, or supply questions that are not in readily available solutions manuals.
- Consider not using graded homework or significantly decrease the weighting of homework assignment grades in the overall grade. Consider giving out assignments, allowing time for students to prepare solutions, and post the solutions after a certain time period. Follow up with a graded quiz testing for their understanding of the homework questions.
- Schedule your office hours during the week and during times that ensure students can see you. Doing so will give students an opportunity to discuss homework problems and not feel the need to resort to copying or other forms of cheating.

Recently Reported Methods of Cheating by COE Students

Creative Use of Cell Phones:

- A student successfully requests of the professor to take the exam early. The student is placed in a quiet room to take the exam and is not monitored. S/he uses his cell phone to take photos of the exam questions, and emails the questions to a group of friends, also in the class, who are waiting for her/his email. They work the problems, email her/him the answers, and are ready to take the exam during the originally scheduled exam period.
- A student requests to be excused to use the restroom during an exam. S/he "phones a friend" to ask for answers of specific questions on the exam while s/he is in the restroom.
- Texting to other students during exams is reported as prevalent and virtually undetectable in larger classes.
- Searching the Internet on Internet-capable phones during exams is also reported as common.

Online Quizzes:

- In one class, students are required to take 10 online quizzes and allowed to drop one grade. The quizzes were administered in a computer laboratory that was open only for a 2-hour period in the evening. Proctoring was minimal, and the students were provided feedback on their performance (correct/incorrect) right away.
 - O A group of 10 students works as a team. One student is assigned as a "shill" for one quiz. The shill takes the exam at the beginning of the exam period as quickly as possible (likely failing) and exits the exam with the correct answers, which he shares with the rest of the team.
 - o This job of "shill" rotates through the 10-member team, so s/he drops only the one exam in which s/he "sacrificed" for the team.

Access to Solutions Manuals:

• Students have been reported to use solution manuals for homework answers, despite the professor clearly stating that using solution manuals is considered cheating.

Access to Old Exam Questions and Solutions:

• A recent complaint from a class this semester involves open-notes exams. Questions included on the exam are taken from previous years' exams, and a subset of students in the class has access to those former exams from friends who have already taken the class. These students walk into the open-notes exam with the old exams and solutions with them and simply copy the answers onto their exam.

Talking During the Exam

• One student reported that students talk to each other regularly during upper division engineering exams.

Take-Home Exams

• Students report rampant sharing of information during take-home exams.

Methods of Cheating Described in Recent National Reports

- Files of term papers kept for reuse with a take-one, turn-one-in policy.
- The "old" rubber band trick—stretch one out and write everything you need on it. Other types of "cheat sheets" are also reported still in use during exams. Also, answers on the bottom of shoes, on top of desks, on hands, inside clear ball-point pens, etc. are also still reported to be used by students.
- Downloading test material into graphing calculators.
- A two-way pager can be used as a mini-computer to access the Internet.
- Use of Internet clearinghouses for term papers (e.g., Cheathouse.com, Schoolsucks.com).
- This technique is used in a large, sloped lecture hall. Students strategically place themselves around a willing (or unwilling) student who has studied or otherwise considered "smart" in the class. The "scholar" sits in front, and the less-prepared friends position themselves as if in a V-shaped flocks of migrating birds. After the two colleagues just behind the "scholar" on the left and right take answers from the "scholar's" exam, the cheating continues down the "vee" to both left and right ends.
- Coded coughing during an exam will spell out "A," "B," "C," etc. on multiple-choice exams. Silent communication systems have been used to achieve this purpose as well (e.g., scratching the nose equates to "A").
- One student goes to the front of the class to distract the teacher, while the others retrieve notes out of their book sacks or communicate answers to each other.

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For suggestions and feedback to enhance this document and to effectively combat cheating in our classrooms, please contact Associate Dean Angela Lindner at alind@eng.ufl.edu.

University of Florida Violations of Academic Honesty Flow Chart

