

Some Tips for Studying for and Taking Timed Exams
Professor J.C. Moosbrugger

Department of Mechanical and Aeronautical Engineering
Clarkson University

Studying

1. Studying in small groups can be very effective. Do some of the following even if you're not studying in a group.

-Study only with other students who are serious about studying. Make sure you study with students who are your ability or better. Good students - don't be afraid to explain things to other students. This will enhance your understanding of the material. But, be careful! Sometimes students of greater ability will require less preparation and this can mislead students who require more study time.

-Go over as many different problems as you can from old homework, old exams, textbook, etc. Try to solve the problems *before* looking at the solutions (make a reasonable effort - don't just look at the solutions the first time you get stuck). *Set up* the solutions, worrying less about getting the numerical answers. Don't quit on a problem until you're convinced you could do it alone.

-Brainstorm things you might be asked and come up with the answers. Try to make up some problems of your own and set up the solutions to them. Go over the course objectives and make sure you have not overlooked anything.

-Study with a clear head. Leave the beer alone until after the exam, or at least until you're done studying. Don't leave the radio, television, etc. on if it distracts you. Demand consideration - if others are disturbing you with loud talking, music, etc., be assertive. Explain to them that you need to study and ask them if they could have fun a little more quietly until later. Let them know that you will do the same for them.

2. If the test is closed-book, make up a list of formulae, problem solving procedures, definitions, etc. as if it were a crib sheet. Do it over again until you're convinced you can do it from memory. If the test is open-notes, bring the list with you.

3. Avoid, if at all possible, staying up all night before an exam. Plan ahead and start studying enough ahead of time so that you don't have to.

Reduce Anxiety

1. Covert Rehearsal- Use your imagination. Pretend you are taking the test. Imagine that you are doing well on it. You have anticipated the questions and you are answering them. Go through the steps in your mind. This only works if you have done your studying well. Work problems on old tests if they are available (without the benefit of the solutions).

2. Cognitive Restructuring -send yourself *positive* messages (ones that are believable). Become your own cheerleader, your own subliminal tape. Research has shown that this *really does* work. Definitely *avoid* the opposite, i.e. sending yourself negative messages.

3. Conscious Relaxation -Try belly breathing. Imagine you are someplace relaxing - daydream to reduce stress.

Be Prepared

1. Have a backup for your alarm clock if the test is in the morning. For example, set your alarm and the alarm on your watch, or set two alarm clocks a few minutes apart so you don't fall asleep to the music.
2. Have backup transportation arranged in case your usual transportation fails.
3. Make sure your calculator is in good order, with good batteries. Have backup pens and pencils. Have erasers, rulers, etc. which you might need on an exam ready to go.
4. Convince yourself you know the exact time and location of the exam, how to get there and how long it takes to get there.

Taking the Exam

1. Read the whole test first. Start with the easiest looking problems first and work towards the harder ones.
2. Think partial credit. Write *something* down for every part of every problem. If you are running out of time, outline what you would do to get an answer. If the procedure is correct, the instructor may very well give you credit.
3. Show your work. You may be able to do the problem in your head and write down the answer. But, if you don't show how you got your answer, you may not get credit. In fact, the instructor may think you're copying someone else's work. Furthermore, if you're wrong, you definitely won't get any credit.
4. Make your work legible. Try to be neat. If that is not possible make sure your work can be read and understood. If she/he can't read it, the instructor will have to assume it is wrong.
5. Get clarification. If you don't understand a question, ask the test proctor. You will often get a satisfactory answer. In any event, it doesn't hurt to try. But, don't get flustered if you don't get the answer you want. Oftentimes the instructor may feel you should know the answer to your question or be able to reason it out as apart of the test. You may get a curt reply -this does not mean the instructor thinks your question is stupid; it may simply be that he/she does not want to give you any unfair advantage by giving any more information to you than given to the other test takers.
6. No panicking allowed. If you start sweating, hyperventilating, shaking, etc. put your pencil down, close your eyes and consciously relax any tense muscles (like jaw and stomach). Try "belly breathing". Resume working when you feel calmer. Always remember -don't blow it out of proportion. In the larger scheme of things, one test is really not that big of a deal. When you're retired and living on your yacht in the Caribbean, you won't even remember it.
7. Check your answers if you have time. Do this after you have worked all the problems. Make sure you have answered all parts of each problem -have you overlooked anything? Are your solutions reasonable (do they make physical sense, are the units correct)? Are your numbers reproducible (last thing to check)?