Over the course of my (short) teaching career, students have come to me for advice about overcoming test anxiety. As a result, I have compiled the following information from various sources to help students with this process. The following information is not limited to math courses, although some specific math advice is given. If test anxiety is negatively affecting your grades, I strongly suggest you discuss the situation with your instructor and/or seek help from other campus resources. Here at the University of Utah, there are experts who specialize in test anxiety at the University Counseling Center (www.sa.utah.edu/counsel). Most students experience some level of anxiety during an exam. However, when anxiety affects exam performance it has become a problem.

You have to know the material to do well on a test. You have to control test anxiety to show what you know.

HOW DO I KNOW IF I HAVE TEST ANXIETY?
You probably have test anxiety if you answer YES to four or more of the following:
1. I have a hard time getting started studying for a test.
2. When studying for a test, I find many things that distract me.
3. I expect to do poorly on a test no matter how much or how hard I study.
4. When taking a test, I experience physical discomfort such as sweaty palms, an upset stomach, a headache, difficulty breathing, and tension in my muscles.
5. When taking a test, I find it difficult to understand the directions/questions.
6. When taking a test, I have difficulty organizing my thoughts.
7. When taking a test, I often "draw a blank."
8. When taking a test, I find my mind wandering to other things.
9. I usually score lower on a test than I do on assignments and papers.
10. After a test, I remember information I couldn't recall during the test.

What Causes Test Anxiety
Lack of preparation as indicated by:
• cramming the night before the exam
• poor time management
• failure to organize text information
• poor study habits

Worrying about the following:
• past performance on exams
• how friends/other students are doing
• the negative consequences of failure

Physical Signs of Test Anxiety
During an exam, a student may experience any of the following bodily changes:
• perspiration
• sweaty palms
• headache
• upset stomach
• rapid heart beat
• tense muscles

Effects of Test Anxiety
• Nervousness:
  • Having difficulty reading and understanding the questions on the exam paper.
  • Having difficulty organizing your thoughts.
  • Having difficulty retrieving key words/concepts for answering essay questions.
  • Doing poorly on an exam even though you know the material.
• Mental Blocking:
  • Going blank on questions.
  • Remembering the correct answers as soon as the exam is over.
How to Reduce Test Anxiety
Here are some things you can do before, during, and after a test to reduce your test anxiety.

1. Use good study techniques to gain cognitive mastery of the material that will be covered on the test. This mastery will help you to approach the test with confidence rather than have excessive anxiety. Build confidence by studying throughout the semester and avoid cramming the night before the exam.
   - The environment in which you study can have a big effect on how efficient your study time is. Check your place of study for the following conditions:
     - Minimize distracting noise. Some people need sound/some like silence.
     - Minimize interruptions! Culprits are family and friends. Consider a "do not disturb sign" and not answering your phone.
     - Have plenty of room to work; don't be cramped. Your study time will go better if you take a few minutes at the start to straighten things up.
     - A desk and straight-backed chair is usually best. Don't get too comfortable—a bed is a place to sleep, not study.
     - Have everything (book, pencils, paper, coffee, calculator, etc.) close at hand. Don't spend time jumping up and down to get things.

2. Maintain a positive attitude as you study. Think about doing well, not failing. Use strategies to personalize success: visualization, logic, talking to your self, journaling, etc. **Think of the test as an opportunity to show how much you have learned.**

3. Go into the test well rested and well fed. Get enough sleep the night before the test. Eat a light and nutritious meal before the test. Stay away from junk foods.

4. Stay relaxed during the test. Taking slow, deep breaths can help. Focus on positive self-statements such as "I can do this."

5. Don't worry about other students finishing the test before you do. Take the time that you need to do your best.

6. Once you finish the test and hand it in, forget about it temporarily. There is nothing more you can do until the graded test is returned to you.

7. When the graded test is returned to you, analyze it to see how you could have done better. Learn from your mistakes and from what you did well.

**Preparing for and Handling Test Anxiety**
- What is it you have to do? Focus on dealing with it.
- Just take one step at a time. Relax; you're in control. Take a slow, deep breath.
- Think about what you can do about it. That's better than getting anxious.
- No negative or panicky self-statements; just think rationally.
- Don't worry; worrying won't help anything.
- You should expect some anxiety; it's a reminder not to panic and to relax and cope steadily with the situation.
- You should expect your fear to rise some; just keep it manageable.
- You can convince yourself to do it. You can reason your fear away.
- Do something that will prevent you from thinking about fear.
**Anticipating test content**

Pay particular attention to any study guides that the instructor hands out in class before the exam, or even at the beginning of the course! For example: key points, particular chapters or parts of chapters, handouts, etc.

- Ask the instructor what to anticipate on the test
- Pay particular attention—just prior to the exam—to points the instructor brings up during class lectures
- Generate a list of possible questions you would ask if you were making the exam, then see if you can answer the questions
- Confer with other students to predict what will be on the test
- Pay particular attention to clues that indicate an instructor might test for a particular idea, as when an instructor:
  - says something more than once
  - asks questions of the class
  - writes material on the board
  - says, "This will be on the test!"

**Tips for Better Test Taking**

When you take a test, you are demonstrating your ability to understand course material or perform certain tasks. Successful test taking avoids carelessness.

Prepare:

- **Analyze your past test results.** Each test can further prepare you for the next test. Use your tests to review when studying for final exams.
- **Arrive early for tests.** Bring all the materials you will need such as pencils and pens, a calculator, a dictionary, and a watch. This helps you focus on the task at hand.
- **Be comfortable but alert.** Choose a good spot and make sure you have enough room to work, maintain comfortable posture but don't "slouch."
- **Stay relaxed and confident.** Remind yourself that you are well-prepared and are going to do well. If you find yourself anxious, take several slow, deep breaths to relax. Don't talk about the test to other students just before it; anxiety is contagious.

Test Taking:

- **Read the directions carefully.** This may be obvious, but it will help you avoid careless errors.

  If there is time, quickly look through the test for an overview

  Note key terms, jot down brief notes

- **Answer questions in a strategic order:**
  1. **First easy questions** to build confidence, score points, and mentally orient yourself to vocabulary, concepts, and your studies (it may help you make associations with more difficult questions)
  2. **Then difficult questions** or those with the most point value. With objective tests, first eliminate those answers you know to be wrong, or are likely to be wrong, don't seem to fit, or where two options are so similar as to be both incorrect. With essay/subjective questions, broadly outline your answer and sequence the order of your points.

- **Review:** Resist the urge to leave as soon as you have completed all the items. Review your test to make sure that you have answered all questions, not mis-marked the answer sheet, or made some other simple mistake. Proofread your writing for spelling, grammar, punctuation, decimal points, etc.

- **Change answers to questions if you originally misread them** or if you have encountered information in the test that indicates your first choice is incorrect.
**Math Exams**

**Preparation:**

- **Begin preparing early.** Pay attention during class: every minute you daydream in class is many more minutes of studying later. Do assigned homework problems: math is a building process and in order to understand the next step you need to comprehend the present, and previous, ones.

- **Simulate test conditions.** After you have studied and think you know the material, practice it under test conditions. Solve unassigned homework problems and see if you can finish them in the allotted time for the exam.

- **Know your professor.** Study a copy of the exam of a previous class if available; Talk with someone who taken the professor before, preferably someone who has succeeded in the same class.

- **Form a study group of 3-4 dedicated students.** Not only will other students be able to help you with problems, but by helping others you will better learn the material. If you are unable teach another student a topic you believe you know, chances are you don't know that topic very well after all. If you can't teach it, you don't know it!

**Testing:**

- **Read through the exam.** With reading through the whole exam you can know what is expected of you; prioritize items on the test; pace yourself.

- **Carefully read the instructions.** Make sure you are answering the question that is being asked! Often students know how to solve a problem, but they misread or misinterpret the question itself.

- **Check that you have correctly rewritten the problem.** If you use a scratch piece of paper make sure that you correctly rewrite the problem. Don't skip steps. Start from the beginning.

- **Clearly write each step of the solution.** Be neat and don't rush writing numbers down. Keep checking your solution as you are working. Neatness makes it easier to recheck your work.

- **Double check your math, especially your calculator entries.** Double check your calculator work immediately. The chances of hitting a wrong number are high, but the chances of hitting the same wrong number are not.

- **Don't Dilly Dally.** If you get stuck on a problem move on and come back to it later. When you are finished, recheck all your work.

**Sources**

2. Counseling Services, University at Buffalo, State University of New York