



OSU Math Course Tips and Tricks



The Ohio State University
Mathematics and Statistics Learning Center

BEFORE YOU EVEN BEGIN

PREPARING FOR THE FIRST DAY OF CLASS

- Buying your books
 - Yes! You need the book!
 - Find your textbooks at the OSU bookstore (<http://ohiostate.bncollege.com>)
 - Some courses have options so check your math course page (<http://math.osu.edu/courses>) for the syllabus or a book buying guide to help you make the best choice.
 - Be cautious about buying used from elsewhere. Many OSU courses have custom editions that differ from those found on Amazon.
 - Most courses require access to an online homework system. Check your course syllabus or book buying guide for information.
 - If you're waiting for your financial aid money to come in, nearly all online homework systems allow free access for approximately 2 weeks. In addition, the textbook can be found within most online homework systems.
- Map your way around campus and to your classes
 - Plan out how long it will take you to get to each class. OSU is a large campus and it may take you more time than you think. (<https://www.osu.edu/map/>)
 - Visit each building and classroom you are scheduled to be in prior to the first class meeting. Avoid being stressed the first day of classes because you are unsure of where you are going.
- Have a separate notebook and folder or binder for each class
 - Use the notebook for note-taking while reading the book, during classes, and for showing your work on homework
 - Although your homework may be online, you should still work out problems in your notebook and show every step as if it were handed it. This will help you review, assist in asking questions when you are stuck, and is an important skill to have when it's time for the test.
- Understanding the differences between high school and college classes (<http://www.smu.edu/Provost/ALEC/NeatStuffforNewStudents/HowIsCollegeDifferentfromHighSchool>)

SWITCHING MATH CLASSES

- If you are unhappy with your section but want to stay in the same course, or if you want to switch the course you are in, visit (www.math.osu.edu) At the beginning of the semester, there will be a link on the front page with information regarding switching classes
- Typically, Math Advisors are the ones that help students switch classes. Math Advising office hours can be found here: (<http://math.osu.edu/undergrad/advising/office>)

IN CLASS

COMING PREPARED

- Read your syllabus and course calendar
 - Take note of your instructors' office hours, assignment due dates, quiz dates, and exam dates.
- Exam dates are often in the evening. Mark these dates and times in your calendar and take note of any conflicts you have. The policy for exam makeups should be in your syllabus. If not, ask your instructor.
- Read the section assigned for the day prior to coming to class. If it were your English class, you would read the book before class. Do the same for math.
 - Take notes and mark any questions you have while reading.
 - While reading, try the examples before you view the solution. Math is about doing. If you get stuck, you can look at the solution but make sure you understand why you got stuck. Try another similar problem from the book to make sure you can do it on your own. You won't have the answers on the test.
 - Pay attention to words in the text that are printed in bold, italics, or underlined.
 - Look for relationships among topics. Math isn't about memorizing definitions and procedures. You need to understand why the procedures work and how the definitions are all connected. In college, not all problems look the same but with different numbers. Think about the big picture.
- Come prepared to ask questions you had while reading or completing the homework

STAYING FOCUSED

- Take notes
 - Note taking is not copying; write down what is important to you.
 - Label your notes in the margins to organize them better for review
- Make indications to yourself where you are confused.
 - Ask questions during class if you are lost or confused about a step. If you're confused, others probably are as well.
 - If you are uncomfortable asking questions during class, see your instructor during office hours or seek help at tutoring.
- Have your book or ebook available for reference.
- Avoid using your cellphone or laptop during class. It will only distract you.
- Make a friend in the class who takes good notes that you can copy from in case of illness. This person could also be your study buddy.

OUTSIDE OF CLASS

TIME MANAGEMENT

- Review your class notes every day after class.
 - Clarify any notes that are messy.
 - Plan how to get your lingering questions answered.
- Start your homework as soon as you can after class.
 - The material will be fresh in your mind.
 - It will help you space out your homework so you're not cramming many hours of work into one night.
 - It will give you time to find help and answer questions if you need it.
- You will spend more time outside of class studying than you did in high school.
 - Via university policy: "One credit hour shall be assigned for each three hours per week of the average student's time, including class hours, required to earn the average grade of "C" in this course." This means if you're in a 5 credit hour class, you should plan to spend at least 15 hours per week on the class.
- Plan your time.
 - A semester calendar showing all major events can help you plan your big picture appropriately. Include dates of exams, due dates for papers and projects, and any personal events such as important birthdays or weddings.
 - A weekly calendar can help you make sure you stay on track and are realistic in how much time you have during the week.
 - <https://students.dartmouth.edu/academic-skills/learning-resources/time-management>
- Be efficient with your time.
 - Eliminate distractions such as social media, your phone, and socializing. Instead make these a reward for your study efforts.
 - Find a quiet place to study.
 - Don't waste time between classes. Use that time to study.
 - If you're stuck on a problem, move on until you can find time to seek help.
 - Study during your 'on' time. (i.e. a morning person should study in the morning)
 - Give each subject a specific time block of time for studying. Use short sessions (45 minutes with 10 minute break)
 - Plan weekly reviews. One hour reviewing every night is better than cramming for five hours right before an exam.

STUDYING

- When working on homework, it's often helpful to think out loud. Explain to yourself why you are doing each step. Even better, find someone else to explain it to.
- Write down all of your work in your notebook. Even if your homework is online.
- Draw pictures if you're stuck.

- Don't look at the solutions or hints to your homework problems until after you've solved them. If you're stuck and need to check hints or solutions, then make sure you can do a similar problem without hints. If you need hints for several problems, this is an indication you need to seek help.
- Attend tutoring/MSLC workshops or see your professor/TA to answer any questions or get help on material you don't feel comfortable with.
- Relate new material to previous material. (How does it all fit together?)
- Keep, correct, and review all returned homework, quizzes, and exams.
- You are responsible for understanding all assigned problems, even if they weren't covered in class. Don't skip the last questions on the homework just because they are the hardest!
- Aim for an "A", to understand everything, to leave yourself a margin of error.

OSU RESOURCES

- MSLC-Math and Statistics Learning Center (Cockins Hall) (<http://mslc.osu.edu/>)
 - Free drop in math and stat tutoring. Check the MSLC website for times and location within Cockins Hall. (<https://mslc.osu.edu/mslc-free-tutoring>)
 - Private tutors available for hire. Arranged with the tutor. <http://mslc.osu.edu/resources/tutors>
 - Workshops cover a range of difficult topics throughout the semester to give you additional practices and support (<https://mslc.osu.edu/workshops>)
 - Exam reviews that are exercises with solutions and voiced/written explanations.
 - Online lessons for Calculus I and II (<https://mslc.osu.edu/online/lessons>)
- Disability Services (<http://www.ods.ohio-state.edu/>)
- Dennis Learning Center (<http://dennislearningcenter.osu.edu/>)
 - Study skills workshops
 - Appointments for academic coaching to help with time management, test anxiety, study skills
- Younkin Success Center (<http://younkinsuccess.osu.edu/tutoring/>)
 - Drop in tutoring for math, physics, and chemistry
 - Veteran Tutoring Services
- Residence Hall Tutoring for Math, Physics, and Chemistry
 - <https://housing.osu.edu/resources/tutoring-in-the-residence-halls1/>
- Office of Diversity and Inclusion <https://odi.osu.edu/for-students/undergraduate/tutoring-and-study-skills-program/>
 - One on One tutoring
 - Study Skills
- Graphing Calculator Resources <http://mslc.osu.edu/graphing-calculator-resources>

OFFICE HOURS

- Instructor office hours are one of the most underutilized resources! Instructors have office hours to answer your questions.
 - Your syllabus will have your instructor's office hours. If you can attend during those hours, contact your instructor to make an appointment.
- What types of questions can you ask?
 - Content: questions about lecture, recitation, homework, etc.
 - Grading, course policies
- How should you prepare to meet with an instructor?
 - Be prepared with specific questions
 - Have your class notes and written out homework attempts with you
- What should you **not** do?
 - Say "I don't understand anything". Instead have specific questions in mind.
 - Miss class and then expect your instructor to re-teach the lecture.
 - If you miss class, get notes from another student and try to learn the section on your own. Once you have answered as many questions as you can on your own, then go to your instructor with your list of remaining questions.
 - Ask your instructor to review your entire exam for points.
 - It is legitimate to ask for clarification about a question you think was graded wrong. However, don't ask your instructor to review your entire exam.
 - If you're unsure why you got a question wrong, see if you can figure it out on your own first through your book, notes, classmates, tutoring

EXAMS

EXAM STUDY SKILLS

- Questions to ask about the exam (Much of this will be stated in your syllabus)
 - Find out what will be covered on the exam
 - Find out what type of questions will be on the exam
 - Will calculators be allowed?
- Prepare in advance, don't wait until the last minute
- Review for several short periods of time rather than cramming in a large chunk
- Complete available review materials
 - OSU Course pages have sample exams. Answers are not typically provided (<http://math.osu.edu/courses>)
 - MSLC has exam reviews which have solutions (<https://mslc.osu.edu/reviews>)
- Try to predict exam questions and then solve them.
- What to study:
 - Study chapter summaries, review questions in text
 - Review past homework or quiz problems

- Study concepts, examples, facts, vocabulary
- Study themes and ideas
- Study notes and text for material that can be answered objectively
- Review interrelated information
- Read example problems
- Study old tests
- How to study
 - Use summary sheets, flash cards
 - Write down the question, mix them up, solve as many as possible
 - If you missed any, find similar questions for practice
 - Turn main points into questions
- Ohio University, “How Effective are my Exam Preparation Methods” Test: (http://webapps.ohio.edu/studytips/Exam_pretest.html)

REDUCING EXAM ANXIETY

- Dealing with negative thoughts:
 - Dispute negative messages you give yourself. Think of a positive thought which argues against the negative thought.
 - Consider the realistic importance of the exam
 - Remind yourself that a test does not measure your self-worth
- Mentally prepare
 - Be thoroughly prepared for the exam. Don’t cram.
 - Prior to the exam, go for a walk to clear your mind and relax.
 - Visualize as part of your preparation. Imagine arriving at a difficult question and calmly and confidently working your way through the question. Imagine getting to a difficult question and moving to another question that you can confidently answer.
 - Remember that test taking is a skill that takes practice.
 - On test day, stop worrying. Try to relax and take deep breaths if you get stuck.
- Physically prepare
 - Find the room location the day before the exam.
 - Have all of your materials ready the night before. Make sure your pencils are sharpened and your calculator has batteries.
 - Get at least 8 hours of sleep the night before.
 - Eat a good meal 1-2 hours before the exam.
 - Arrive 5-10 minutes early, choose a seat and relax.
- The OSU Dennis Learning Center offers one-on-one appointments with an academic coach to discuss test anxiety (<http://dennislearningcenter.osu.edu/free-appointments/>)

EXAM TAKING SKILLS

- Arrive on time and with all materials (pencils, erasers, calculator with batteries, water, watch)

- Calculators can be checked out for loan from the MSLC (<http://mslc.osu.edu/resources/calculator/loan>)
- Turn off all electronic devices (Off! Not just on silent)
- Most instructors will have you sit every other seat and move as far into the center as possible to seat everyone. Be accommodating.
- Read all directions and questions carefully. Underline key words or important phrases.
- Pacing
 - Once you are instructed to open the exam, preview the test to determine the pace you need. Pay attention to scoring.
 - Answer the easiest questions first but allow yourself time for hard questions
 - Avoid rushed answers
- When you get stuck
 - Rephrase difficult questions for yourself. Draw pictures. Ask yourself what the words in the question mean.
 - If you are not penalized for guessing, make an educated guess. On multiple choice, eliminate wrong answers to narrow down.
 - Write down something for each question, you may get partial credit.
 - If you don't understand a question, ask for clarification. The test giver may not be able to answer because doing so would give the answer away but it's worth trying.
- Showing work
 - Show all work neatly. Carefully distinguish between “z” and “2”, “t” and “+”
 - Be detailed in justifying your answers and don't skip steps.
 - Give one single answer and circle it.
 - Make sure your answer makes sense
 - Don't forget units
- Save time to review your exam. Check all answers. Although you may have been required to show all work and perform problems algebraically, you can still check your work on your calculator. Make sure you have answered all questions according to the directions.
- Don't worry if other students finish before you.
- The only thing you have to concentrate on is your test.

POST-EXAM REVIEW SKILLS

- Reviewing returned exams has many benefits
 - Reinforces putting content into long term memory
 - Gain an understanding of the comprehension the instructor was looking for
 - Gain insight on how to improve on next exam
 - Content could re-appear on final exam or in later courses
- How do you review a returned exam?
 - Correct and understand what you missed
 - Know what questions you missed and why

- Ask questions while the test is fresh in your mind.
 - You can go to your instructors or a tutor but the instructors will know exactly what answers they were looking for.
- Review how you studied and look for ways to improve.
 - Ask yourself what questions were easiest or hardest and why
 - Ask yourself how you study for the exam.
 - Group or individually
 - Amount of time and frequency
 - Did you seek help
- What methods were most helpful?
- Did you feel prepared when you walked into the exam? Why or why not?
- Learning From the Exam Analysis
(https://webapps.ohio.edu/studytips/Exam_learning.html)