

Math Placement Information

Message 1

Note: Every College or University has a different mathematics placement process. It is worth your time to investigate this BEFORE you arrive for your summer orientation. It is likely you will be required to take some type of mathematics placement test before you register for your first semester of classes and you should be ready!

Steps for Math Placement at SDSU:

1. You are automatically placed if you already have earned college credit.
 - a. Take and pass the AP exam for Calculus
 - b. Take a CLEP (College Level Examination Program) exam to earn college credit
 - c. Take a dual credit course to get college credit for a class you take in high school (CAUTION!)

2. ACT Math Subscore
 - a. Subscore is 0-19, you take Math 095 (Pre-college Algebra- doesn't count towards graduation)
 - b. Subscore is 20-24 (or higher) , you may take Math 102 (College Algebra) or Math 103 (Quantitative Literacy)
 - c. Subscore is 25 or higher, you may take Math 102, Math 103, Math 115 (Precalculus), Math 120 (Trigonometry) or Math 121 (Survey of Calculus).
 - d. If you wish to take Math 123 (Calculus I), you must take the Compass Exam

3. Compass Exam (given during orientation)
 - a. Tests your Prealgebra, Algebra, Geometry and Trigonometry skills
 - b. Can be used to improve your placement if you scored 24 or below on the Math subscore ACT
 - c. Is required for placement if you wish to take Math 123 (Calculus).

More Details to Come!

Math Placement Information Message 2

Why is placement so important?

Comment from a Calculus student who *failed* Calculus I last year and is *repeating it* this year:

“I felt sure that I had seen all the algebra and trig topics I would need for Calculus, so I didn’t listen to the recommendations of my professor. I found out I hadn’t seen them all and the problems I needed to do were HARDER than the ones I remembered from High School.”

Taking a course for which you aren’t prepared often means that you fail that course and must repeat it. The placement process is in place to help you determine which course you are prepared to take.

Even if you need a higher level class, you save time and money by taking a class for which you are prepared , passing that class and being better prepared for the next class.

However, being placed in too low of a course means your path to degree completion is longer!

Therefore- take the ACT and the Compass Exam seriously- ensure that these exams reflect your TRUE ability- not whether you got enough sleep the night before the test.

Be aware that the placement process is not perfect. Students do end up in classes for which they aren’t prepared and some take classes that were too easy for them.

There are many factors that affect your performance in a class that can’t be determined by a test. Your desire to succeed, your willingness to work, the amount of time and effort you commit to the course, and outside influences during the semester all affect your chances of success.

It is important that you learn, not merely survive, the mathematics you study in high school. You should learn with the goal of retaining and using this mathematics again in your college courses.

Math Placement Information

Message 3

Step 1 of the Placement Process: Earned College Credit

AP Credit for Calculus I and/or II:

If you take and earn a 3 or more on the Advanced Placement AB Calculus Exam, you get College Credit for Calculus I and are automatically placed into Calculus II. (If you pass the BC Exam, you automatically place into Calculus III)

A word of caution: A score of 3 is an indication that you possibly are not adequately prepared for Calculus II, so our department recommends you consider taking Calculus I instead. This will not be a problem unless you are under the South Dakota Opportunity Scholarship. If this is the case, you will be required to take 19 credits your first semester. (Calculus I will be considered a “repeat” and does not count towards the 15 credit requirement) For programs that require Calculus, Calculus I is considered your first freshman course, so taking Calculus I does not put you behind in your program.

For some majors, this may be all the mathematics required, so you will not have to take any mathematics in college (though you might want to just for fun!).

Note: You may not know the result of your AP exam by the time you arrive at orientation. Discuss this with your advisor at that time.

Note: At SDSU, if you take and pass the AP exam for Statistics, you receive credit for Stat 281, but this will not affect your placement for other math courses.

Earning College Credit by Examination:

It is possible to earn college credit for work you have done in High School by taking and passing a CLEP (College Level Examination Program) exam.

Note: this exam is not an easy way out of taking a math class. The problems require algebraic skill, ability to apply algebra to real life, and creative thought processes.

For information about the CLEP exams at SDSU, go to <http://sdstate.edu/aea/examination/clep>. To see which exams are accepted for course credit at SDSU, click in the right column under computer based or paper based scores.

To learn more about the exams themselves: <http://www.collegeboard.com/student/testing/clep/about.html>

Dual Credit:

Some high schools offer a dual-credit course in which you earn College credit for the courses you take in High School. A word of caution: be very diligent in these classes and don't do the “minimum” required to pass. Our experience has been that an earned passing grade in a dual-credit course does not always mean the student is prepared for the next Math course.

Math Placement Information

Message 4

Step 2 and 3 of the Placement Process

ACT Math Subscore and the COMPASS Exam

The ACT

Math placement at SDSU is first dependent upon your ACT score

Take the ACT seriously to ensure it measures your true ability!

ACT 0-19 Math 095 (Pre-college Algebra)

ACT 20-24 Math 102 (College Algebra) or Math 103 (Quantitative Literacy)

ACT 25 or Higher Math 102, Math 103, Math 115 (Precalculus), Math 120 (Trigonometry), or
Math 121/121L (Survey of Calculus)

The Compass Exam

Some students take the Compass exam when they come to SDSU for summer orientation. Other schools might use Compass, Accuplacer, or some other test. **Take this test seriously!** Review your math before you go to orientation.

You may take the Compass exam if you are placed in Math 095 or 102 based on your ACT score and believe you should be placed higher. You get ONE chance.

You MUST take the Compass exam if you would like to take Calculus (unless you have an appropriate AP Calculus score). You get ONE chance! Your score will determine whether you take Precalculus, Calculus I or Calculus I with an additional required precalculus lab.

The test is different for everyone and the problems you get are determined by the problems you get correct or incorrect throughout the test. If you blow off the first few problems, you jump to a lower category and are more likely to be placed lower.

Sample Questions for the Compass exam can be found here: <http://www.act.org/compass/sample/index.html>

At the bottom of this page under "More Sample Questions" you'll find .pdf documents that include a list of topics covered in each category of the exam.

To place into **Math 123** (Calculus I) you must be able to do almost all of the problems in the "college algebra" category and the "trigonometry" category.

Math Placement Information

Message 5

Choosing a Class

Part 1

Courses offered at SDSU that cover material you could learn in High School (for free!)

Math 095 Pre-college Algebra

(you pay extra for this class and it doesn't count towards your 128 credits required to graduate)

Math 102 College Algebra

(this class counts towards your math requirement for graduation- CLEP exam available)

Math 115 PreCalculus

(this is a 5-credit class, it counts towards your math requirement for graduation and is a prerequisite for Calculus- CLEP exam available)

Math 120 Trigonometry

(this counts towards your math requirement, but does not prepare you for Calculus- CLEP exam available)

Math 123 Calculus

(this is a 4-credit class and it counts towards your math requirement for graduation, but you must be placed here or complete PreCalculus first- AP course available in High School- CLEP exam available)

Math123L Calculus Lab

(this is a 1-credit course required for students who are placed in and are taking Math123, but whose compass scores indicates a weakness in PreCalculus skills- this is taken along with Math 123 and lets you strengthen your Pre-Calculus skills without forcing you take the full PreCalculus course)

Stat 281 Introduction to Statistics

(this class satisfies your math requirement for graduation and is required in some majors- AP course available in High School)

Math Placement Information

Message 6

Choosing a Class

Part 2

You cannot take a Math class *above* your placement.

You can take one *below* your placement.

If you are worried about your placement being too high, choose a lower level class:

However, once you take a specific math class, you must follow the path from that class to your final Math class. For example, if you place in Math 102, but choose to take Math 095, you must finish Math 095 before you can take Math 102.

Choose the Highest Level for which you are placed and you are comfortable:

If you are unsure of your major, choose the highest level for which you are placed. Many students who change into a major for which Calculus is required are dismayed to find that College Algebra does not satisfy the prerequisites for Calculus and they are required to take the 5-credit PreCalculus course before they can take Calculus. If they had been placed in this course and taken it to start, they would have saved some time.

Choosing Calculus I?

If you are taking Calculus I, you will be taking a "Gateway" exam to help you ensure that you are truly prepared for this course. This is not a placement exam and you are not required to follow the recommendations based on this test, but you should consider them seriously. Information can be found here: <http://sdstate.edu/mathstat/for-students/gatewayexam.cfm>

What is required in your major?

The on-line Catalog for SDSU can be found here: <http://catalog.sdstate.edu/>

Click Majors and Minors in the Left Column to see what courses are required. If no specific Math course is listed, Math 102, Stat 281, or any higher Math class will satisfy the math requirement (SGR Goal 5).

Here is the Path to your final "math destination." Your initial placement determines how many courses you must take to achieve your math goal. Where will you start?

To Satisfy a General Math Requirement:	To Calculus:	To Statistics	To Survey of Calculus	To Chemistry
Math 095 Math 102	Math 095 Math 102 Math 115 Math 123	Math 095 Math 102 Stat 281	Math 095 Math 102 Math 121	Math 095 Chem 106 OR Math 095 Math 102 Chem 112

Once you're at SDSU- things you may not know
Message 7

- 1. All college classes expect that you spend at least 9 hours per week (including class attendance) and some require more!!!**
- 2. College is a full time job!!!**
- 3. Taking Math 095 (Pre-college Algebra)?**
 - This course is a computer-based mastery format (CBMP).
 - You read the book, take notes, watch videos, and interact with animations all on the computer.
 - After doing homework, you take a proctored quiz.
 - If you pass that quiz (70% or higher), you move to the next module.
 - If you don't pass the quiz, you work with the material until you are able to pass the quiz and move on.

You must attend class! This is NOT an on-line class.

- 2 hours scheduled class time
- 4 hours unscheduled time in the lab
- 3 additional hours on your own

You can finish early or take an extra semester if needed. If you don't finish by the end of a semester, you pick up next semester where you left off!

Not surprisingly, statistical analysis of success in this course indicates that the more effort a student puts into the course, the more likely they are to finish!

- 4. Calculators are not used that often in Freshman math classes!**
 - Pre-college Algebra- no calculators allowed for the first part of the course, no graphing calculators for the last part of the course (scientific calculators only)
 - College Algebra- no graphing calculators allowed (scientific calculators only)
 - PreCalculus and Calculus courses- no calculators allowed on tests (except in the Honors class)

Math Placement Information
Message 8

**You might think now that you will not go to college.
Life changes.
Be smart now so that you don't limit your options later.**

Take Mathematics courses every year in High School, take them seriously, and understand that the ACT, College Placement Examinations and your college professors will expect that you have *retained* your High School mathematics knowledge.

When getting ready to go to college, **know the placement process** and be ready to take a placement test during orientation.

Know what Mathematics courses are required for the Majors in which you are interested. Even if your major doesn't seem to be dependent upon mathematics, every degree requires at least one college level mathematics class. You can get prepared for these courses in high school, or you can pay extra to get prepared for them in college.

Your success in College is largely dependent upon **your desire to learn, willingness to work, and time committed to learning.**