

MATHEMATICS PLACEMENT/PROFICIENCY EXAMINATION

ABOUT THE EXAMINATION

I. INTRODUCTION

Like most universities, Chicago State University is committed to providing its students with the mathematics skills necessary for success in their studies, their careers, and their lives. The mathematics courses offered at CSU fall into roughly three categories:

- (a) ***Developmental Mathematics courses:*** These courses (Math 090, 095 and 098, if you need them) will help you bolster the mathematics skills that you will need to succeed in the college-level math courses required for your major.
- (b) ***Required Mathematics courses:*** These are the college-level mathematics courses that are required for your major (business, education, health, science, engineering, and so on) or as a general requirement.
- (c) ***Advanced Mathematics courses:*** These courses are designed mainly for mathematics majors.

All entering students (freshman and transfer) are required to take the University Placement/Proficiency Examinations, as soon as possible (before registering for classes). The exams are in mathematics, writing, and reading. Depending on the outcome of your placement examination and your major, you will be placed in the appropriate mathematics course. All students must pass at least one 3-hour college-level mathematics course (not counting Math 090, Math 095, and Math 098) before graduation. To be eligible to register for a college-level mathematics course, you must pass the mathematics portion of the Placement Examination or pass the developmental courses (Math 090, Math 095, and Math 098) that you are placed into.

This booklet focuses on the Mathematics Placement Examination portion: how to schedule the exams, what to study, what happens if you pass, what happens if you don't pass, and so on. [The Department of English has its own booklet to help explain its portion of the examination.]

II. SCHEDULING THE EXAMINATION

You will not be allowed to register for any math or computer science course until you have taken the Mathematics Placement/Proficiency Examination. Not taking this examination may also restrict your registration in other courses. The examination is offered regularly through the Office of Examinations. Here are important facts about registering for the exam:

- ✓ Upon being admitted, you will be sent a letter with a schedule of upcoming testing dates.
- ✓ Exams are on a walk-in basis on the dates shown on the schedule in the letter.
- ✓ If you have questions, the Office of Examinations is located in ADM 126 (the Cook Administration Building), and their phone number is 773-995-2481.
- ✓ The examinations are given in LIB 119 (the Library).
- ✓ During the scheduled testing hours, you will have as much time as you need on the mathematics portion,.
- ✓ Bring several pencils and a hand calculator with you, but no books or notes.
- ✓ Be prompt (early).
- ✓ Bring a picture identification and your admission ticket or letter with you.

III. THE EXAMINATION AND THE CORRESPONDING COURSES

The mathematics portion of the Placement Examination is a computerized test. It is called an *adaptive* test, since it adjusts the level of the test to your skills and expertise and does not ask questions that are too easy or too hard for you. There is a very large pool of questions, so you and the other test takers will likely get very different sets of questions and in different orders. The test is untimed, which should help reduce some of the test anxiety students often have. For more information about the examination, go to the following website: www.act.org/compass

You will get your Placement Examination results instantly, which will tell you to do one of the following:

- Take Math 090, Math 095, Math 098, and then course(s) for your major.
- Take Math 095, Math 098, and then course(s) for your major.
- Take Math 098, and then course(s) for your major.
- Take course(s) for your major (Math 121 or Math 140 or Math 162).
- Furthermore, if you do very well, the computer may place you in a more advanced mathematics course, appropriate to your major.

A. BASIC MATHEMATICS

The first items on the Placement Examination address basic mathematics and pre-algebra skills. These topics include the following.

- ❶ Integers (addition, subtraction, multiplication, and division)
- ❷ Fractions (addition, subtraction, multiplication, and division)
- ❸ Decimals (addition, subtraction, multiplication, and division)
- ❹ Ratio and Proportion
- ❺ Percentages
- ❻ Averages
- ❼ Exponents, square roots, and scientific notation

You may have to take Math 090 (Basic Mathematics), followed by Math 095 and Math 098. These are 3-credit-hour courses that count as college credit, but not as graduation credit. These courses are graded A, B, C, or F and will count in the grade-point average.

If you do not pass the Math 090 course:

- If you were "close" to passing, you will receive an "I" and be allowed to take a special make-up final given before the next term starts in order to complete Math 090 and earn a "C". If you do not pass or do not take this special test, you will have to re-register for Math 090.
- If you were not close to passing, you will receive an "F" and have to re-register for the course.

If you pass the pre-algebra portion of the Placement Examination, you will not have to take Math 090. Your placement in a mathematics course will then depend on how you do on the algebra items of the exam. (See the next section.)

B. ALGEBRA

Much of the Mathematics Placement Examination deals with algebra. The material covered on this portion includes the following topics:

- ❶ Substituting values into algebraic equations
- ❷ Linear equation in one variable
- ❸ Graphing and linear functions
- ❹ Solving systems of equations
- ❺ Polynomials (addition, subtraction, multiplication, division, and factoring)
- ❻ Exponents and radicals
- ❼ Rational expressions (addition, subtraction, multiplication, division, and equations)
- ❽ Quadratic equations and functions

Your placement in an algebra depends on the results of the Placement Exam.

- If your algebra skills are weak, then you may have to take Math 095 (Basic Algebra) and then Math 098 (Intermediate Algebra).
- If your algebra skills are a bit better, you may have to take only Math 098 (Intermediate Algebra).

If you do not pass Math 095 or 098:

- If you were "close" to passing, you will receive an "I" and be allowed to take a special make-up final given before the next term starts order to complete Math 095 or 098 and earn a "C". If you do not pass or do not take this special test, you will have to re-register for Math 095 or Math 098.
- If you were not close to passing, you will receive an "F" and have to re-register for the course.

If you pass the algebra portion of the Placement Examination or pass Math 098, you are ready for college-level mathematics course.

- If your major is in the College of Education, your next math course is probably Math 140.
- If your major is math, computer science, engineering, chemistry, physics, biology, economics, in the College of Health Services, or in the College of Business, your next math course is probably Math 162.
- If your major is in the College of Arts and Science (not mentioned above), your next math course is probably Math 121 or Math 123.

In any event, see your advisor to learn what your next math course should be.

IV. PREPARING FOR THE EXAMINATIONS

Students sometimes do not take this placement examination seriously and end up in too low a course; therefore we urge you to review for the exam and suggest the following.

- ✓ Look over the review material on the following pages. Then work the practice problems that follow the review. Check your work against the answers that are given.
- ✓ Get a textbook on Basic Mathematics, Basic Algebra, and/or Intermediate Algebra and review the material that is giving you difficulty.
- ✓ Purchase or check out of the library a review book, such as:
 - Peterson's *The Insider's Guide To The ACT Assessment*
 - Peterson's *PSAT Success*
 - ARCO *Scholastic Aptitude Test*
- ✓ Ask a friend or relative for help with the material.
- ✓ Call the Academic Support Program (773-995-4510) or the Learning Assistance Center (773-995-2273) to see if there is a pre-test tutoring program they can recommend to help you prepare.
- ✓ Visit the website of the computerized test: www.act.org/compass
- ✓ Practice with a hand calculator, since you will be allowed to bring one to the examination.

V. TAKING THE TEST

There is no substitute for knowing the material very well. However, here are a few tips that may help you do a little better on the day of the test.

- ✓ Arrive early so you can take your time.
- ✓ Relax. Take deep breaths before the exam starts.
- ✓ Break "big" problems into several "little" problems.
- ✓ Check your work. Rework each problem.
- ✓ Be careful with negative signs.
- ✓ The test is multiple-choice and computerized. Be sure you click on the correct answer.
- ✓ Maintain your focus during the exam.

Good luck.