Math Directed Self-Placement

To the newest member of our HCCC family,

Welcome! This is an exciting time as you begin your college journey. The faculty and staff at Hudson County Community College, are looking forward to supporting you as you work to fulfill your education and career goals.

The first step on your journey is an important one. Your courses in this first semester should be inspiring, educational, and yes, a bit challenging as well. To help you select the course that is the best fit for you and enables you to be successful, we have designed a Directed Self-Placement (DSP) process. The DSP process will help you to figure out which of HCCC's Math courses is the best match for you based on your current math skills.

The DSP process consists of three easy steps:

1. **Review** Math Course Expectations and Course Descriptions;
2. **Take** the Math Directed Self-Placement Questionnaire;
3. **Select** your preferred Math course placement.

The questionnaire will ask you to reflect on your prior academic experiences and your future goals as well as review brief sample assignments. This should all take approximately 15 minutes to complete.

See you in September (or sooner!),

The HCCC Math Faculty

STEP 1: Review Math Course Expectations and Course Descriptions

Mathematics Course Expectations: Which is the best fit for you?

Basic Math MAT-071	Basic Algebra MAT-073/070	College Algebra MAT-100	Pre-Calculus MAT-110	Calculus I MAT-111
3 credits	4 credits	3 credits	4 credits	4 credits
The student needs a refresher of basic mathematical concepts.	The student can operate and use the order of operations agreement to simplify numerical expressions involving addition, subtraction, multiplication, division, exponents and square roots of whole numbers, integers, decimals, fractions, and combinations of them.	The student can solve systems of linear equations and inequalities of one or two variables, including application problems in a variety of fields: natural sciences, business, economics, and others.	The student is able to define a function, domain, and range, work out applied problems using functions involving slopes and rate of change, and sketch graphs of exponential, logarithm and trigonometric functions.	The student is able to understand the concepts of limits, continuity, and differentiability of functions, apply differentiability to solve a variety of problems, evaluate integrals, and apply the Riemann Sum to solve engineering science problems.
The student needs a refresher on math operations with different types of numbers such as whole numbers, integers, fractions, and decimals.	The student is able to round, estimate, and compare different types of numbers.	The student is able to simplify basic operations (addition, subtraction, multiplication, and division) to simplify variable expressions involving exponents, polynomials, and rational expressions.	The student is able to analyze and sketch graphs of polynomials, rational, exponential, logarithm, and trigonometric functions.	The student is able to find limits, discuss continuity, derivatives of functions, evaluate integrals, and apply the fundamental theorem of calculus.
The student needs to review problems related to proportions and percents.	The student can select appropriate problem-solving strategies to estimate, solve, and interpret word problems requiring one or more operations.	The student can simplify radicals and apply the laws of exponents.	The student can simplify trigonometric identities, find the domain of functions, and analyze graphs.	The student can determine limits, discuss continuity of functions, find derivatives, and evaluate integrals.
	The student is able to translate verbal expressions to variable expressions and apply the addition and/or multiplication property to solve equations.	The student can factor polynomials and solve quadratic equations by factoring.		The student is able to apply calculus to engineering science fields.

Mathematics Course Descriptions: What will you learn in a specific course?

Course	Basic Math MAT-071	Basic Algebra MAT-070/073	Basic Algebra Basic Math MAT-071AMA and MAT–073AMB	Basic Algebra/College Algebra MAT-073-ALP/MAT-100-ALP	College Algebra MAT-100	Pre-Calculus MAT-110	Calculus I MAT-111
Credits	3 credits	4 credits	6 credits	6 credits	3 credits	4 credits	4 credits
Description	This course is designed to review basic arithmetic concepts, skills, and vocabulary required for numerical computations. The following topics are covered: • operations with whole numbers and fractions • decimals • signed numbers • evaluating and simplifying variable expressions • solving simple linear equations • ratios • rates • proportions • percents • basic statistics • geometry	This course is designed to help students understand the basic fundamental mathematical concepts. The following topics are covered: • adding, subtracting, multiplying, and dividing of real numbers • symbols and sets of numbers • exponents • order of operations • solving quadratic equations by factoring • graphing linear equations	This accelerated course teaches the essentials of Basic Math and Basic Algebra in one semester. The following topics are covered: • All topics listed under Basic Math and Basic Algebra	This accelerated course teaches the essentials of Basic Algebra and College Algebra in one semester. The following topics are covered: • All topics covered in Basic Algebra plus: • polynomials • first-degree equations • word problems • graphing • systems of linear equations • factoring • exponents • quadratic equations • matrices • radicals	This course teaches the essentials of College Algebra. The following topics are covered: • polynomials • first-degree equations • word problems • graphing • systems of linear equations • factoring • exponents • quadratic equations • matrices • radicals	This course provides the preparation necessary for students who intend to study calculus for science and engineering programs. The following topics are covered: • functions and their graphs • polynomial and rational functions • exponential and logarithm functions • trigonometric functions • analytic trigonometry • additional topics in trigonometry	This course considers the limits, continuity, theory and techniques of differentiation and integration, with applications of both processes to science/engineering. The following topics are covered: • limits and their properties • differentiation • application of differentiation • integration • logarithm, exponential, and other transcendental functions
Content Sections	3 to 4 sections per week	3 to 5 sections per week	4 to 5 sections per week	4 to 5 sections per week	3 to 5 sections per week	3 to 5 sections per week	3 to 5 sections per week

STEP 2: Take the Math Directed Self-Placement Questionnaire

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STEP 3: Select your preferred Math course placement

[Math Directed Self-Placement Questionnaire](#)