

**10/27/2009 Recoding for Basic Skills – T.O.P.s and CB coding**

**Coding the Student Progress Pathway through Basic Skills Mathematics Courses in California Community Colleges**

Current CB 21 coding by discipline:

Discipline	Credit	Noncredit
Math	Four levels CB 21 A, B, C, D	Six levels CB 21 A, B, C, D, E, F

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## Final Rubrics for CB 21 Coding Updated August 2009

Final Credit Mathematics Rubric				
Mathematics	Define and Manipulate	Solve	Graph	Applications
<b>Intermediate Algebra</b> <b>CB21 – A</b>  1 level prior to transfer	Define and manipulate nonlinear and linear functions and relations.	Solve a variety of nonlinear equations, e.g. logarithmic, inverse quadratic equations, absolute value, rational	Create, analyze and interpret graphs of linear and non-linear relations.	A variety of applications such as: Growth and decay Logic reasoning Geometry Optimization  Quadratic Applications such as motion, mixture, work.
<b>Introductory Algebra</b> <b>CB21 - B</b>  2 levels prior to transfer Transfer	Define and manipulate linear expressions and polynomials	Solve a variety of 2 variable linear equations (systems), any linear equation, and factorable quadratic equations.	Plot points and graph linear equations on a Cartesian coordinate system.	Set up linear equations representing situations, solve, justify and interpret the solution in the context of the problem.
<b>Pre-Algebra</b> <b>CB21 – C</b> 3 levels prior to transfer	Define and manipulate signed numbers and variables.	Solve simple linear equations in one variable.	Introduce to the number line.	Apply a known formula to a given situation.
<b>Basic Mathematics (Arithmetic)</b> <b>CB21 - Y</b> 4 levels prior to transfer	Define and manipulate nonnegative rational numbers.	Introduce concepts and symbols of equality and inequality.	-----	Apply the correct operation to a given situation.

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**GEOMETRY:** Since geometry most often has an introductory algebra prerequisite and is sometimes a prerequisite for a transfer-level course, most math faculty felt that it should be coded at CB21-one level below transfer. If your geometry is a two-semester sequences you should determine whether it should be coded as to levels prior to transfer the first semester and one level below for the second semester or both on one level below transfer.

**Alternative Mathematics Courses to Meet Graduation Requirements:** Math courses designed to satisfy the new associate degree mathematical competency requirements (beginning Fall 2009) should be coded CB21-one level below, as these courses are supposed to be at the same level and rigor as intermediate algebra.

A recent curriculum listserv discussion indicated that many such courses were being developed and considered one level below transfer.

**Alternative Transfer Level Courses in Math Alternative transfer level math courses would be coded as transfer and do not have a CB 21 coding**

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<i>Mathematics</i>	Define and Manipulate	Solve	Graph	Applications
Credit/Noncredit Mathematics Intermediate Algebra CB21 – A One level prior to Transfer	Define and manipulate nonlinear and linear functions and relations.	Solve a variety of nonlinear equations, e.g. logarithmic, inverse, quadratic equations, absolute value, rational	Create, analyze and interpret graphs of linear and non-linear relations.	Apply algebra skills to a variety such as: Growth and decay Logic reasoning Geometry Optimization  Quadratic Applications such as: motion, mixture, work
Credit/Noncredit Mathematics Elementary/ Introductory Algebra CB21 - B Two levels prior to transfer	Define and manipulate linear expressions and polynomials	Solve any linear equation, a variety of 2 variable linear equations (systems) and factorable quadratic equations.	Plot points and graph linear equations on a Cartesian coordinate system.	Set up linear equations representing situations, solve, justify and interpret the solution in the context of the problem.
Credit/Noncredit Mathematics Pre-Algebra CB21 – C Three levels prior to transfer	Define and manipulate signed numbers and variables.	Solve simple linear equations in one variable.	Introduction to the number line.	Apply a known formula to a given situation.

Noncredit and Credit Mathematics Levels 1-3 as defined above are identical. Prior to level three, noncredit mathematics programs diverge from the typical credit pattern above, as seen below.

<b>DRAFT Noncredit MATHEMATICS RUBRIC</b>			
<b>Introduction to Arithmetic</b>			
Levels	Define	Compute	Apply
CB21 – D Four levels prior to Transfer	Understand and use concepts of nonnegative rational numbers.	Demonstrate proficiency with addition, subtraction, multiplication and division of all whole numbers, fractions, decimals, and percents.	Apply the correct operation to a given situation including geometric measurement (e.g. perimeter, area) and formulae. i.e. solve word problems.
<b>Basic Computation and Mathematical Comprehension</b>			
CB21 – E Five levels prior to Transfer	Understand and use the concepts of all whole numbers as well as simple fractions, decimals, and percents.	Demonstrate proficiency with addition, subtraction, multiplication and division of all whole numbers. Identify and compare values of simple fractions, decimals, and percents.	Use rounding, estimating, measurement and apply the correct operation to a given situation.
<b>Numeric Literacy: Understanding Numbers and Counting</b>			
CB21 – F Six levels prior to Transfer	Use and understand the concept of ones, tens, hundreds... in the place value number system	Count, compare, describe and sort objects. Conduct single digit computation.	Develop a sense of numerical properties, patterns, and other applications such as time and money.

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