June 30, 1995

TO: Chief Instructional Officers  
   Academic Senate Presidents  
   Counseling Managers  
   Curriculum Committee Chairs  

FROM: Rita Cepda, Vice Chancellor  
       Curriculum & Instructional Resources  

SUBJECT: Articulation of Math & Language Skills Sequences

SYNOPSIS: The attached Articulation of Math and Language Skills Sequences document was collaboratively developed by the Chancellor's Office Basic Skills Advisory Committee (BSAC) and the Academic Senate for California Community Colleges, with input from community college basic skills faculty and professional organizations. It was adopted by the Academic Senate for California Community Colleges, at their April 7-9, 1994 Spring Session; and, both the Senate and the BSAC recommended its dissemination to college instruction offices and counseling faculty.

Basic skills faculty and Chancellor's Office staff have long been concerned that, due to a lack of common content descriptors for successive courses in basic skills sequences, students transferring between community colleges were sometimes required to repeat basic skills/ESL course content, thereby, unnecessarily delaying their progress. Senate representatives to the BSAC felt that students and counseling faculty could benefit from a general agreement defining levels of basic skills math and language ability.

The BSAC concurred on the value of such consensus to students, and to counseling faculty's placement recommendations. Working with faculty and professional organizations in the math and English disciplines, they initiated the development of guidelines that could be used, as appropriate, by students and counseling faculty.

It is important to note that this document is not intended to be prescriptive, or to describe a required and/or recommended model for basic skills offerings. It represents, at best, a useful snapshot of some colleges’ current practice, relative to determining the comparability of course content (level) between another college's basic skills courses and their own offerings. It is part of the Chancellor's Office ongoing effort to remove barriers to students transition/transfer, between community colleges and/or between education segments.

ACTION REQUESTED: Faculty and staff from many colleges have expressed an interest in having some guidelines to use, when determining the level of a student's prior preparation in a basic skills sequence. However, a district's/college's use of this document is strictly voluntary.
For those choosing to use this document, we are requesting that you document and report, to us, any perceived consequences related to its use. And, whether or not you choose to use the course-sequencing document, we encourage college faculty and staff to apprise us of any concerns and/or questions you have about the content of the document or its use.

CONTACT: Please address your questions, concerns, and/or other information about basic skills course sequencing to:

Gene Hudson, Specialist
CIR Division
1107 Ninth Street
Sacramento, CA 95814

Attachment

cc: CSSOS
   Matriculation Coordinators
   Basic Skills Coordinators
   Kaylene Hallberg
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ARTICULATION OF MATH AND LANGUAGE SEQUENCE
(FORMERLY KNOWN AS BASIC SKILLS ARTICULATION PROJECT: PHASE 1)

READING

Note: This is an attempt to provide a snapshot of current practice, not to describe ideal practice. Level IV is the first Associate Degree/transfer course; Level III the course one level below that course; Level II course two levels below that course; and Level I the beginning nondegree credit course. Although these courses expect some writing in order to assure solid skills gains. Reading and writing assignments and homework are required for all courses [see Title 5 § 55002 (a) and (b)]

LEVEL IV  (Associate Degree/transfer)  COLLEGE READING

Definition
• A course designed to emphasize the use of analytical and critical reading/thinking skills with difficult college texts and vocabulary development using college level materials. Instruction may include reading rate flexibility, college study techniques and reading for research.

Entry Expectations
• Students should be able to use a variety of vocabulary building skills, including context clues, etymology, word parts, and dictionary; identify main ideas and significant supporting details in content area texts; make inferences and draw conclusions.

LEVEL III  (Associate Degree/nontransferable)  INTRODUCTION TO COLLEGE READING

Definition
• A course designed to strengthen and expand reading and study skills. Concentration on vocabulary extension, complex comprehension skills including identification of types of supporting data, and study/reference skills with content area texts.

Entry Expectations
• Students should be able to understand vocabulary in context; apply word analysis strategies (recognize affixes and roots); identify main ideas and key supporting details in different types of paragraphs; make predictions while reading; use a dictionary to determine denotation of words; identify basic paragraph and sentence organizational patterns; summarize readings; and use effective study skills techniques.

LEVEL II  (Nondegree credit)  DEVELOPMENTAL READING

Definition
• A course designed to develop comprehension skills in identifying and analyzing concrete main ideas and supporting details, in different types of paragraphs; identifying basic sentence organizational patterns; vocabulary development; making predictions and summarizing.

Entry Expectations
• Students should be able to recognize and: recall facts from reading; use a variety of word attack skills including phonics, structural analysis and syllabification; understand the use of homonyms, synonyms, compound words in vocabulary study and identify common spelling endings.
LEVEL I  (Nondegree credit) BASIC READING

Definition  • A course designed to develop fundamental reading skills. Technical skills development is with auditory and visual discrimination and; combining of sound-symbol relations. Emphasis is on word analysis, development of commonly used vocabulary, spelling skills, comprehension, and basic techniques of study using individualized materials.

Entry Expectations  • Students should be able to understand written and fundamental familiarity with receptive and expressive language.

Educational Technology  • Instruction supported by educational technology; word processing, computer assisted instruction or CAI, and technical software may be introduced at any and all levels.

ARTICULATION OF MATH AND LANGUAGE SEQUENCE
(FORMERLY KNOWN AS BASIC SKILLS ARTICULATION PROJECT: PHASE 1)

WRITING

Note: This is an attempt to provide a snapshot of current practice, not to describe ideal practice. Level IV is the first Associate Degree/transfer course; Level III the course one level below that course; Level II course two levels below that course; and Level I the beginning nondegree credit course. Reading is clearly an important component of all writing courses at all levels. No attempt is made here to describe reading levels for these writing courses.

LEVEL IV  (Associate Degree/transfer) COLLEGE WRITING (FRESHMEN COMPOSITION)

Definition  • A course designed to focus on the multiple paragraph essay and research paper. Instruction includes critical thinking, methods of development, thesis statement, support of thesis, argumentation, logical development of ideas, transitional devices, and appropriate use of documentation to avoid plagiarism.

Entry Expectations  • Students should be able to develop a thesis fully, using primary and secondary sources; write a multiple paragraph essay; use effective transition elements between, sentences and paragraphs; control mechanics, punctuation and grammar, and revise their own drafts.

LEVEL III  (Associate Degree/nontransferable) INTRODUCTION TO COLLEGE WRITING (SUBJECT A)

Definition  • A course designed to focus on the single paragraph and multiple paragraph essays. Instruction includes pre-writing activities; thesis statement and support of thesis; and all skills related to paragraph development including topic sentences, supporting sentence organization of sentences, methods of development, transitions, ordering paragraphs into logical sequences, critical analysis and synthesis, and revision.

Entry Expectations  • Students should be able to write complete, coherent sentences and paragraphs; use various paragraph
forms; use a variety of sentences patterns and lengths and respond to other student writers in paragraphs and simple essays.

### LEVEL II  (Nondegree credit)  DEVELOPMENTAL WRITING

**Definition**
- A course with major focus designed to include description, exposition, persuasion, and comparison and contrast. Instruction includes topic sentence, methods of development, and sentence combining. Reader response activities and editing may be introduced.

**Entry Expectations**
- Students should be able to write complete simple, compound, and complex sentences using proper punctuation and grammar and write simple paragraphs.

### LEVEL I  (Nondegree credit)  BASIC WRITING

**Definition**
- A course designed with major focus on increasing students ability to produce fluent text with emphasis on writing simple, compound, and complex grammatically correct sentences in context, and simple paragraphs. Instruction focuses on subject/verb agreement, case, proper usage, and complete sentences.

**Entry Expectations**
- Students should be familiar with simple prose and be able to write a series of simple sentences in English.

**Educational Technology**
- Instruction supported by educational technology; word processing, computer assisted instruction or CAI, and technical software may be introduced at any and all levels.

### ARTICULATION OF MATH AND LANGUAGE SEQUENCE

(FOREMEROUSLY KNOWN AS BASIC SKILLS ARTICULATION PROJECT: PHASE 1)

**MATH**

*Note: This is an attempt to provide a snapshot of current practice, not to describe ideal practice. Level IV is the first Associate Degree/transfer course; Level III the course one level below that course; Level II course two levels below that course; and Level I the beginning nondegree credit course in the sequence. Reading and writing are clearly an important component of mathematics courses that enable students to develop problem solving strategies and develop and solve word problems. No attempt is made here to describe entry reading or writing levels for these mathematics courses.*

### LEVEL IV  (Associate Degree/transferable)  PRE CALCULUS

**Definition**
- A course focusing on a more in-depth study of various functions; connection between variable and function; root finding, graphing; emphasized, algebra topics of particular value in calculus; trigonometric functions; trig identities; laws of sines and cosines; applications of trigonometry.

**Entry Expectations**
- Students should be able to demonstrate skills related to rational expressions; polynomials; exponent properties; systems of equations; quadratic formula and complex numbers; word problem applications;
properties and graphs of exponential and logarithmic functions; properties and graphs of conic sections; general concepts of relations and function.

Educational Technology

• Many campuses are now teaching this course so that graphing calculator is essential; access to mathematics computer software desirable.

LEVEL III  (Associate Degree/nontransferable)  ALGEBRA 2

Definition

• A course focusing on rational expressions; polynomials; exponent properties; systems of equations; quadratic formula and complex numbers; word problem applications; properties and graphs of exponential and logarithmic functions; properties and graphs of conic sections; general concepts of relations and function introduced.

Entry Expectations

• Students should be able to demonstrate skills to using axioms; variables; properties of sign variables; factoring variables expressions; solve algebraic equations; word problem applications; graphing lines and parabolas; and manipulating formulas.

Educational Technology

• Access to scientific calculator is essential access to graphing calculator, and/or mathematics computer software desirable.

LEVEL II  (Associate Degree credit/nontransferable)  ALGEBRA 1

Definition

• A course about variables based on axioms; properties of signed variables; factoring variable expressions; solving algebraic equations; word problem applications; graphing lines and parabolas; manipulating formulas.

Entry Expectations

• Students should be able to demonstrate skills related to integers; fractions; decimals; scientific notations; percentage; ratio and proportion; SI metric measurement; basic geometry (such as area, perimeter, volume, and the Pythagorean Theorem); vital consumer applications (such as taxes and discount); historical topics (such as old algorithms for multiplication); computing with a simple hand held calculator.

Educational Technology

• Access to scientific calculator, graphing calculator, and mathematics software is desirable.

LEVEL I  (Nondegree credit/Not Associate Degree credit, nontransferable)  BASIC MATHEMATICS

Definition

• A course focusing on mastery and understanding of integers fractions; decimals; scientific notation; percentage; ratio and proportion; SI metric measurement; basic geometry (such as area, perimeter, volume, and the Pythagorean Theorem); vital consumer applications (such as old algorithms for multiplication); computing with a simple hand held calculator.

Entry Expectations

• Students should be able, to read and write well enough to solve word problem and application in basic mathematics. Students should also be able to form and use Hindu-Arabic numbers.

Educational Technology

• Access to a simple hand held calculator is essential.
FOOTNOTE: Some courses in the curriculum may appear to be at a level below Level I. If course content is the same as a Level I course, and primary differences are the use of Instructional strategies or accommodations for special student populations, the course should be treated as a Level I course.

In addition, many colleges have courses outside of the Mathematics Department, such as Business Math or Technical Math that do not align with the levels described here. Each campus will need to discuss local equivalencies.