

# **College of Education and Human Development**

## **HB Syllabus**

### **EDBL 4325 Bilingual and Dual Language Math Methods: Elementary Classrooms Programs**

#### **Course Description**

This course is designed to teach the methods and approaches for teaching mathematics in the bilingual and dual language classroom. The identification of best practice and effective pedagogical instruction in mathematics for emerging bilinguals and English Learners will be explored. Furthermore, the instructional materials, resources, and linguistic accommodations will provide the opportunity for meaningful exploration of basic mathematical concepts and processes in the bilingual and dual language classroom. Assessment of these mathematical practices and processes for learning and classroom implementation will be explored.

#### **Student Learning Outcomes/Objectives and/or Course Competencies**

1. Describe the effects of bilingual instruction support in classrooms.
2. Describe and analyze how content area literacy development in Spanish promotes literacy in the first and second language.
3. Describe and identify appropriate techniques and strategies in the content areas that promote understanding for ELs.
4. Develop and learn academic language of the content area of mathematics that will increase the students' knowledge.
5. Know how to maintain focus on learning and study the learning process while knowing what strategies and methods to use effectively to extend knowledge

Standards:

#### **PPR Standards**

I The teacher designs instruction appropriate for all students that reflects an understanding of relevant content and is based on continuous and appropriate assessment. (1.1k, 1.2k, 1.4k, 1.7k-1.24k, 1.1s, 1.2s, 1.3s, 1.6s-1.22s, 1.24s-1.29s) & IV The teacher fulfills professional roles and responsibilities and adheres to legal and ethical requirements of the profession (4.7k, 4.9k, 4.10k, 4.11s, 4.11k, 4.12k, 4.12s, 4.5s-4.13s)

## **Bilingual Supplemental Standards**

Standard VI The bilingual education teacher has comprehensive knowledge of content-area instruction in L1 and L2. (6.1k-6.6k & 6.2s-6.6s)

## **EC-6 Core Standards**

Standard I Number Concepts: The mathematics Teacher understands and uses numbers, number systems and their structure, operations, and algorithms, quantitative reasoning, and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS] in order to prepare students to use mathematics. (1.1k-1.5k & 1.1s- 1.15s),

Standard II Patterns and Algebra: The mathematics teacher understands and uses patterns, relations, functions, algebraic reasoning, analysis and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics (2.1k-2.7k & 2.1s-2.12s),

Standard III Geometry and Measurement: The mathematics teacher understands and uses the geometry, spatial reasoning, measurement concepts, and principles, and technology appropriate to teach the statewide curriculum [TEKS] in order to prepare students to use mathematics (3.1k-3.10k & 3.1s-3.9s),

Standard IV : Probability and Statistics: The mathematics teacher understands and uses probability and statistics, their applications, and technology appropriate to teach the statewide curriculum [TEKS] in order to prepare students to use mathematics. (4.1k-4.5k & 4.1s-4.10s),

Standard V Mathematical Processes: The mathematics teacher understands and uses mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics, and to communicate mathematically. (5.1k-5.7k & 5.1s-5.22s),

Standard VI Mathematical Perspectives: The mathematics teacher understands the historical development of mathematical ideas, the interrelationship between society and mathematics, the structure of mathematics, and the evolving nature of mathematics and mathematical knowledge. (6.1k-6.7k & 6.1s-6.7s),

Standard VII Mathematical Learning and Instruction: The mathematics teacher understands how children learn and develop mathematical skills, procedures, and concepts, knows typical errors students make, and uses this knowledge to plan, organize, and implement instruction to meet curriculum goals; and to teach all students to understand and use mathematics (7.1k-7.19k, 7.20k, 7.22k & 7.1s-7.24s),

Standard VIII Mathematical Assessment: The mathematics teacher understands assessment and uses a variety of formal and informal assessment techniques appropriate to the learner on an ongoing basis to monitor and guide instruction and to evaluate and report student progress. (8.1k-8.8k & 8.1s-8.7s),

Standard IX Professional Development: The mathematics teacher understands mathematics teaching as a profession, knows the value and rewards of being a reflective

practitioner, and realizes the importance of making a lifelong commitment to professional growth and development. (9.1k-9.7k & 9.1s-9.7s),

Standard X Assessment and Instruction of Developing Literacy: Teachers understand the basic principles of assessment and use a variety of literacy assessment practices to plan and implement literacy instruction for young students. (10.5k, 10.7k & 10.6s),

Standard XI Research and Inquiry Skills: Teachers understand the importance of study and inquiry skills as tools for learning and promote students' development in applying study and inquiry skills (11.1k-11.3k & 11.1s-11.5s)

### **Textbook & Course Materials**

Van De Walle, J., Karp, K.S., & Bay-Williams, J.M. (2019) Elementary and Middle School Mathematics: Teaching Developmentally. 10th Edition. Pearson.

Ovando, C. & Combs, M.C. (2012). Bilingual and ESL Classrooms: Teaching in Multicultural Contexts. 5th Edition. McGraw-Hill Higher Education.

Rodriguez, I. (2007). Manual de Orientación al Maestro. Publicaciones Puertorriqueñas.

Reyes, S. (2014). An English-Spanish / Español-Inglés glossary of academic vocabulary for bilingual teaching & learning: La justa palabra.

### **Course Assignments**

| <b>Points</b> | <b>Description</b>                 |
|---------------|------------------------------------|
| 8             | Attendance                         |
| 20            | Math Lesson Plan                   |
| 14            | Math Journal Reflections           |
| 20            | Math Chapter Reading Presentations |
| 5             | Math Assessment                    |
| 8             | Weekly Math Quizzes                |
| 10            | Math Diagram                       |
| 15            | Math Portfolio                     |
| 100           | Total Points Possible              |