EDBL 5386- Content Area and STREAM Instruction for Dual Language Education

HB Syllabi

A. Course Description

This course is designed to teach academic foundations, skills, and strategies for effective teaching in mathematics, science, and social studies for dual language education. Emphasis will be placed on curriculum development, inquiry teaching, academic vocabulary, and integration of technology. This course will also provide knowledge through a transdisciplinary approach for teaching Science, Technology, Reading, Engineering, Arts, and Mathematics (STREAM) in dual language. This course is offered in Spanish.

B. Course Objectives

Upon successful completion of this course, educators will be able to:

1. Analyze the effects of bilingual instruction on content-area learning and assess how Spanish literacy development transfers to second-language acquisition.
2. Identify and implement evidence-based instructional strategies that promote content comprehension among emergent bilingual learners across STREAM disciplines.
3. Develop proficiency in the academic language and vocabulary specific to science, technology, reading, engineering, art, mathematics, and social studies.
4. Design scaffolded learning experiences that build students' conceptual knowledge and disciplinary literacy in dual-language contexts.
5. Apply metacognitive strategies and pedagogical methods that expand emergent bilingual students' content-area knowledge while maintaining a focus on learning processes.

C. Content

Educating Multilingual Learners
Quality Learning for Multilingual Learners
Amplifying the curriculum- extension and augmentation- Theories of learning for Multilingual Learners
Curriculum for Dual Language Development and Language Proficiency
Accessible Genres for Multilingual Learners
Designing Mathematical Learning with rich interactions
Selecting and preparing Multiple Sources in the History Classroom
Meaning-Making in Science for Multilingual Learners

Scientific Biliteracy
Science Talks
STEM for Bilingual and Dual Language
STREAM in Bilingual and Dual Language

D. Recommended Text and other readings

Walqui, A., Bunch, G. C., Muller, P., Alvermann, D. E.,& Ghiso, M. P. (2025). *Amplifying the Curriculum: Designing Quality Learning Opportunities for Multilingual Learners*. Teachers College Press.

ISBN: 978-0-8077-8714-4

Recommended Readings

Cunningham, C. (2018). *Engineering in elementary STEM education: Curriculum design, instruction, learning, and assessment*. Museum of Science. ISBN9780807758779

Reyes, S. (2014). *An English-Spanish / Español-Inglés glossary of academic vocabulary for bilingual teaching & learning: La justa palabra*. ISBN-13: 978-0984731725