MATH 3069: Mathematics and Culture

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: *.*
Lab Hours/Week: *.*
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course will introduce students to the relationships between mathematics and cultures and how an understanding of these relationships can increase learning and success in the mathematics classroom. The main focus of this course is on current cultures and their mathematics although some history of cultural mathematics will be covered. Cultures from around the world will be examined and students will also be given the opportunity to study cultures of particular interest to them or of particular relevance to their career as an educator. This course is designed for students studying to become and students who already are mathematics educators.

Prerequisite(s): Junior-level status, graduate status, or consent of instructor.

B. COURSE EFFECTIVE DATES: 08/21/2017 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Bishop’s six
2. Culture-specific mathematics lessons and activities
3. Designing culturally relevant lesson plans
4. Equity in the mathematics classroom
5. Mathematics and cultures: examples from around the world with an emphasis on cultures indigenous to the north-central United States
6. Mathematics principles and standards: NCTM, Common Core, and other recommendations from the MAA and AMA

D. LEARNING OUTCOMES (General)

1. The idea that mathematics is value- and culture-free will be challenged and students will appreciate why this matters in mathematics education.
2. discover that all cultures engage in mathematical activities.
3. learn how to alter currently used lesson plans or develop new lesson plans that incorporate cultural aspects that are relevant to their students.
4. develop and understanding of the relationship between mathematical ideas and cultures.
5. will learn how to modify traditional mathematics education so it is culturally relevant.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None
F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted