## MATH-EDUC-46-27: Mathematics for Elementary Education [CRN 01539 & 23146] TTh 01:30 pm–03:45 pm, Location MCC-12 Classes meets twelve weeks (September 25-December 15, 2017) .

Instructor: Reza Shariatmadari, Email: shariatmadarireza@fhda.edu

**Office Hours:** Thursday: 12:00 pm-1:30 pm at the lower level of Financial Aid building (Baldwin Vinery). Dial 5720 for my office access.

**Textbook:** Mathematical Reasoning for Elementary Teachers, 7th edition by Long and DeTemple.

**Calculators:** We don't use calculator in this class, if needed online calculator/graphing calculator will suffice.

**Course Description and Prerequisites:** Designed for prospective elementary and middle school teachers. An introduction to the discipline of mathematics as the use of logical, quantitative, and spatial reasoning in the abstraction, modeling, and problem solving of real-world situations. The main topics in the course include the origins of mathematics, mathematical reasoning and problem solving strategies, theory of sets, integers and integral number theory, rational numbers and proportion, real numbers and decimal notation, and measurement. Throughout the course students will experience the learning of mathematics in a way that models how they can create an active learning environment for their future students.

**Prerequisite**: MATH 114 with a grade of C or better, or a qualifying score on Intermediate Algebra Placement Test within the past calendar year. Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273.

**Midterms:** There will be two midterms exams, one presentation and one writing project during the quarter. Exams will be given either during regularly scheduled class meetings or as a take home exam or combination of both. The midterm exams are cumulative. Any change in Midterm, Presentation and Writing Project dates and location will be announced in advance.

## Tentative Schedule:

Midterm 1: October 19, 2017 Presentation: October 31 - November 09, 2017 Midterm 2: November 21, 2017 Teaching Statement/Education Strategy: November 30, 2017 (Draft review, every Tu/Th, begins October 17, 2017 and ends Tuesday November 21, 2017).

Final Exam: The Final Examination will be on Tuesday, December 12, 2017, 1:45 pm - 3:45 pm. This will be a comprehensive examination covering the entire quarter. The date of the final exam is set in stone and will not be changed.

**Homework:** Homework and recommended problems will be assigned according to our progress in class. They provide practice, help clarify ideas introduced in class or in the text, and constitute a

partial guide as to what to expect on Quizzes and Exams.

You are encouraged to work together to study and do your homework. Taken in the right spirit, this can be very productive. However, assignments that you turn in under your name must be your own; group papers will not be accepted.

**Quizzes:** More accurately they are Pop Quizzes so there will be no announcement about the timing of these quizzes, which explains the pop part of the name.

**Extra Credit:** There will be opportunities for extra credit and they will be announced during class. You can earn as many extra credit points as I offer throughout the quarter.

Attendance and class participation: You are expected to attend lectures every day. Active class participation is required. You are expected to come to class prepared for the days discussion. Should you miss a lecture for any reason, you are responsible for all the material that was covered and assignments that were given. Make-up exams will be given at my discretion, provided I am notified of your absence in advance.

Academic Integrity: Students are reminded that their behavior at all times reflects upon the college community. The minimum penalty for cheating, plagiarism, etc. is a grade of zero on the assignment. For additional information on the college's policies, read the Ethics and the Academic Integrity Policy at

http://www.deanza.edu/studenthandbook/academic-integrity.html.

**Disability Services**: Students with disabilities should contact Disability Support Programs Services, Building: AT209. Contact: Marilyn Booye, Phone: 408.864.8407. I am happy to meet with you to discuss necessary academic accommodations once I receive appropriate documentation from Disability Support Programs Services.

**Courtesy**: As a courtesy to those around you, cell phones and other electronic devices should be silenced and put away during lecture unless instructed otherwise by me.

**Grades**: Course grades will be determined by homework, quizzes and exams. *I reserve the right* to make any changes to the syllabus and to adjust your grade based on my opinion of the quality of your work and your progress throughout the quarter. Consult with me at anytime if you have questions about your grade.

## General guidelines are as follows:

Homework: 5% for a total of 50 points.

Quiz: 5% for a total of 50 points.

Exam 1: 15% for a total of 150 points.

Exam 2: 15% for a total of 150 points.

Presentations: 15% for a total of 150 points.

Teaching Statement/Education Strategy: 15% for a total of 150 points.

Final Exam: 30% for a total of 300 points

Your course letter grade will be assigned as follows:

(A+: 970-1000)

(A: 930-969)

(A-: 900-929)

- (B+:870-899)
- (B: 830-869)
- (B-: 800-829)
- (C+: 770-799)
- (C: 730-769)

(C-: 700-729)

- (D+:670-699)
- (D:630-669)
- (D-:600-629)
- (F:000-599)

**Getting Help**: In addition to coming to office hours, please feel free to email me any questions you have on the homework (or any other questions you might have) and I will respond promptly. Tutoring is also available at "Math, Science & Technology Resources Center (S43). Please take advantage of this service at no cost to you.

Important Dates: For more detail go to: https://www.deanza.edu/calendar/falldates.html

## Holidays:

Veterans Day (Friday, Nov 10, 2017). Thanksgiving Holiday (Thursday, Nov 23-26, 2017).

Student Learning Outcome Statements (SLO): Analyze mathematical problems from elementary mathematics, apply problem solving techniques using a variety of methods, solve these problems individually and in groups, and communicate results mathematically through a variety of forms. Utilize ideas from number theory, distinguish types and properties of numbers, and employ mathematical rules for operating on rational and irrational numbers using verbal, symbolic, geometric, and numerical methods. Examine and evaluate myths and realities about the contemporary discipline of mathematics and its practitioners. Identify and discuss developments in the history of elementary mathematics from a variety of cultures.