

MATH for K-8 Teachers I COURSE SYLLABUS

General Information

Course Information

- a. Number: Math 132
- b. Title: Math for K-8 Teachers
- c. Prerequisite: Appropriate math placement, DVSP 099, or instructor consent
- d. Credits: 5
- e. This course is offered fall quarter MTRF from 2:30 – 3:50 in Beaverhead (Piel Qlawqn) Rm 108
- f. Created: Winter 2014

Instructor Information

- a. Instructor: Terry Souhrada
- b. Office: Stevenson Building Room 104 (formerly the Education Building)
- c. Office Hours: 8:30 am – 11:00 am M-F, 1:30 pm – 3:00 pm W, or by appointment
- d. Telephone: 406-275-4764

Required Materials

- a. Text: None
- b. Manipulative Kit
- c. Notebook, pencil, and basic calculator if desired

Description/Rationale

This course is the first of a three-course math content sequence for future teachers in grades K-8. This course will focus on the mathematical meaning and background of arithmetic, number theory, number systems, and problem solving. Students will experience various pedagogical approaches while investigating the hows and whys of our number system and the associated arithmetic operations with whole number, integers, rational numbers, ratio, and proportional reasoning.

Objectives

1. *General Course Objectives*

Upon completion of this course students will:

- a. be familiar with basic properties of our number system.
- b. understand several approaches to solving problems
- c. accurately carry out rational number operations.
- d. use appropriate tools strategically.

2. *Critical Thinking*

Upon completion of this course students will:

- e. reason quantitatively and abstractly.
- f. successfully identify and apply appropriate problem solving strategies.
- g. analyze and construct mathematical arguments.
- h. reason quantitatively and abstractly.

3. *Cultural*

Upon completion of this course students will:

- i. accept and appreciate a variety of mathematics backgrounds and abilities.
- j. increase understanding of their own strengths and methods through interaction with a diverse group of learners.
- k. quantify and solve problems specifically related to issues on the reservation.

Other Course Information

Attendance Expectations

Although no attendance points will be given, you will be expected to be in class at all times. There will be activities and assignments that you will not be able to make up due to the nature of the assignment. In addition to the content in this course you are training to be a professional.

Professionals are expected to be on the job on time and at all times. By being consistent with attendance, you are beginning to act and think like a professional. This is professional responsibility. Poor attendance will result in missed information, missed assignments and tests, and possible failure of the course.

Students are expected to be on time for class and to stay until the designated time set for dismissal. If a student must leave early he/she must inform the instructor at the beginning of class. In addition, please keep cell phones in the off or silence position and put away during class. These are all considered professional courtesies.

Academic Honor Code

All course work shall follow the guidelines of the Academic Honor Code as set forth by the SKC Student Handbook. Do your own work; allow other students to do their own work. **Plagiarism** involves the taking of someone else's words, ideas, or writings and presenting them as your own. Avoid plagiarism, and always acknowledge the ideas of others and cite your sources of information. Violation of the Academic Honor Code may result in failure of the assignment, the course, or possible expulsion from school.

Course Responsibilities

Knowledge of the course content, class lectures, assignments, and syllabus content are the responsibility of the student regardless of absenteeism. Syllabus content and calendars are tentative; instructors will notify you of any changes in writing.

Any material missed due to absences is the student's responsibility to get from someone who was in attendance. Missed assignments due to absences may only be made up if the instructor was given notification prior to the missed class. The student must also obtain the instructor's approval before making up the missing work.

Reasonable Accommodations

Reasonable accommodations are provided for eligible students with identified disabilities. The College complies with the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Students may contact the College's Disability Officer or consult the SKC web page for Students with Disabilities for more information.

SKC Retention

The SKC Retention Team consists of SKC staff and faculty who provide student-centered support services on a daily basis. The SKC Retention Team is here to help you to be successful in reaching your educational goals. You can contact the SKC Retention Team yourself, or your instructor may refer you (for example, if you "disappear" from class or they are concerned about your attendance and performance). *Debbie L. Bell, SKC Retention Coordinator* (Bookstore Annex, 275-4928, Email: retention@skc.edu)

Grading

Your final grade will be determined according to a standard percentage scale (90-100=A, 80-89=B, 70-79=C, 60-69=D, 0-59=F) with points distributed as follows:

a. exercises, problem sets, and group tasks	30%	(1 – 2 per week)
b. menu tasks	20%	(2 – 3 sets per quarter)
b. journal responses	10%	(1 – 2 per week)
c. short exams	40%	(approx. 4 per quarter)
Total Points	100%	

Course Outline

Week 1 – Number System and Whole Number Addition and Subtraction

Week 2 – Integers and Integer Addition and Subtraction

Week 3 – Whole Number and Integer Multiplication and Division

Week 4 – Other Number Systems

Week 5 – Primes, Composites, GCD, and LCM

Week 6 – Rational Number Operations

Week 7 – Rational Number Problem Solving

Week 8 – Ratios

Week 9 – Ratios and Percentage

Week 10 – Proportional Reasoning

Credit Hours

Following the SKC Credit Hour policy, to meet the identified objectives of this course, this 5-credit course, delivered over a 10-week term will approximate:

5 hours/week classroom instruction

In addition, out-of-class student work will approximate a minimum of 10 hours per week.

Available Help

- (1) If you are struggling or need help with this course, you should first contact the instructor to get support and advice about how you can improve your learning.
- (2) The SEM tutoring lab in room 109 is open every day and staffed with tutors to help you succeed in this course. Please take advantage of this service.
- (3) Reasonable accommodations are provided for eligible students with identified disabilities. The College complies with the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Students may contact the College's Disability Officer, Linda Pete (linda_pete@skc.edu, 406.275.4968) or consult the SKC web page for Students with Disabilities for more information.

* The faculty reserves the right to change the course syllabus or course content. Students will be provided advanced written notice of any changes.