

MATH 2008
Foundations of Numbers and Operations
3.0 Semester Hours (3-0-3)
Department of Mathematics
College of Arts and Sciences
Valdosta State University
Section:
Meeting Times:
Room:
Semester:

PREREQUISITE:

MATH 1101, MATH 1111, or MATH 1113 with a grade of “C” or higher.

Instructor :
Office :
Phone :
Email :
Office Hours :
Options :

REQUIRED MATERIALS:

Textbook: O’Daffer, P., Charles, R., Cooney, T., DosseyJ., & Schielack, J. (2008). *Mathematics for elementary school teachers* (4th ed.). Boston, MA: Pearson Addison-Wesley.

Other: Scientific calculator (TI-83 or equivalent acceptable), colored pencils or markers, ruler (12 inches and 30 cm), stapler, scissors

COURSE DESCRIPTION

An introductory mathematics course for early childhood education majors. This course will emphasize the understanding and use of the major concepts of number and operations. As a general theme, strategies of problem solving will be used and discussed in the context of various topics.

GENERAL STUDENT LEARNING OUTCOMES

This course focuses on preparing early childhood education majors to:

- 1) Understand and use the major concepts of number and operations in mathematics for grades P-5.
- 2) Solve problems using multiple strategies, manipulatives, and technological tools; and determine the reasonableness of answers and efficiency of methods.
- 3) Communicate using precise mathematical terminology.
- 4) Construct and justify arguments as well as interpret solutions; and determine reasonableness of answers and efficiency of methods.

ASSESSMENT

Fill in according to individual class structure. Detailed information for individual assignments may be provided separately.

- general description of the assignments
- due dates
- policies for missed assignments, make-up assignments, late assignments, and/or extra credit

Make-Up Work: Make up work or alternative assignments will be determined by the professor and at the sole discretion of the professor. These assignments may or may not exactly duplicate the original and will not entitle other students to the same alternatives since they may not have experienced the same situations.

NO MAKEUP EXAMS WILL BE GIVEN after the test has been administered to the class. If you know in advance you must miss an exam day, let the instructor know in advance so potential arrangements can be made to take the exam early. It is NOT your right to take an exam early. This is done at the discretion of the instructor.

Your lowest exam score of the four exams will be replaced by your final exam score (if it helps). If you miss one exam, the missed exam will be your low score (grade of zero) and your final exam score will be used for that exam. Each subsequently missed exam will receive a score of zero. All exams should be taken with a strong effort each time.

Each of the examinations is a closed-book, closed note, individual exam. The content of the exams comes from the material presented in the course through readings (text and additional readings), text exercises, assignments, in-class notes, and in-class activities.

The final exam is a mandatory comprehensive final and will make up 20% of your overall grade for the course.

Daily Assignments	10%
In-class Quizzes	10%
Exam 1	20%
Exam 2	20%
Exam 3	20%
<u>Final Exam</u>	<u>20%</u>
Total	100%

Grading Scale

90% – 100%	A
80% – 89%	B
70% – 79%	C
60% – 69%	D
Below 60%	F

ATTENDANCE AND TARDINESS

It is very important that you attend every class session on time. Roll will be taken each day by the instructor. If you are late it is your responsibility to notify the instructor at the end of that specific class meeting to be sure the attendance is amended to tardy. **Failure to notify the instructor that day will result in your being counted absent.** You may not make “corrections” to your absences or tardiness after the fact at a subsequent class meeting. The amount of time you are tardy will count against the number of days you can miss for the course. **Every three times you are tardy will be counted as one absence.** Excessive tardiness or absences may result in the notification of your major chair and/or the filing of a Departmental Concern Form.

If you miss more than 20% of the class meetings (>6 days), you will receive an **F** in the course as per Valdosta State University Policy found in the VSU Undergraduate Catalog. Please note that there are **no** distinctions made between “excused” and “unexcused” absences. **All absences are counted equally no matter what the reason.** If you are absent, be certain to get class notes, handouts, and assignments from

another student in the class. Getting the phone number and e-mail address of two or three classmates during the first week of class will be very helpful. It is **completely your responsibility** to get class materials for a session that you missed.

All cell phones/MP3 players/laptops will be turned off and stowed during class.

Students will receive points for class attendance and participation. Students will lose points for lack of participation (off task, sleeping, and so on), tardiness, and absences. These points **CANNOT** be made up – if you are not present you did not participate and thus cannot receive participation points.

New Limited Withdrawal Policy:

- Please remember that starting fall 2010 **undergraduate students are limited to 5 course withdrawals for the lifetime of their undergraduate record.**
- **DO NOT OVER-REGISTER!** Please make sure you are enrolled in courses you intend to complete.
- Please go to <http://www.valdosta.edu/academic/WithdrawalPolicy.shtml> and **read the entire policy and the FAQs.**

SOI STATEMENT

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators. Instructors will be able to view only a summary of all responses after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the data until after final grade submission, they will be able to see which students have or have not completed their SOIs. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey, is available on the [SOI Procedures webpage](#).

PROFESSIONALISM

A professional demonstrates the ability to focus on the job at hand. We expect professional basketball players, surgeons, attorneys, etc. to focus on their work when working. Michael Jordan does not read the paper during his game, nor does he go to the game simply to chat. During the semester, you need to exhibit professional behavior by focusing on the job at hand – learning mathematics. If you will come to class with the mindset of putting learning first, then the following aspects of professionalism will naturally fall into place:

- Come to class every time it is scheduled, be on time, and do not leave early.
- Turn in assignments and other materials on time.
- Do not pack up your books early.
- Stay on task – learning mathematics.
 - Turn off/silence cell phones and all other electronic devices
 - No electronic devices are permitted except graphing calculators
 - Students who use electronic devices during class will lose participation points
- Be prepared.
- Do **NOT** cheat. Procedures for academic dishonesty will be followed if work presented as your own is not actually your own work. If you need help, please get the help **BEFORE** the examinations.
- Through your actions and words, display that the work you are doing is important.
- Be courteous to and respectful of others. All students have the right to hear in class lectures, so do **NOT** converse privately during class lectures.

- Clean up after yourself.
- Demonstrate a positive attitude.

ACADEMIC INTEGRITY

“Academic integrity is the responsibility of all VSU faculty and students. Faculty members should promote academic integrity by including clear instruction on the components of academic integrity and clearly defining the penalties for cheating and plagiarism in their course syllabi. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the faculty members’ syllabi. All students are expected to do their own work and to uphold a high standard of academic ethics.” Full information on Academic Honesty at VSU is available at

<http://www.valdosta.edu/academics/academic-affairs/vp-office/academic-honesty-at-vsuhp>

“By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within BlazeVIEW. For more information on the use of Turnitin at VSU see Turnitin for Students at <http://www.valdosta.edu/academics/academic-affairs/vp-office/turnitin-for-students.php>.”

Deviation from the stated, implied, or orally given professional standards may result in the notification of your major chair and/or the filing of a Departmental Concern Form with the College of Education to be entered into your permanent file. Serious infractions such as cheating, verbal abuse, and so forth will be reported to the Dean of Students for additional actions.

The Academic Support Center: The Academic Support Center (ASC) provides free peer tutoring in core curriculum courses, including sciences, math, writing, social sciences, humanities, and foreign languages. The ASC also provides supplemental instruction (tutor-led study group sessions) for historically difficult courses like biology, chemistry, geosciences, psychology and sociology, as well as academic success workshops. Call 229-333-7570 to make an appointment, email us at asc@valdosta.edu, or visit our website: www.valdosta.edu/asc. Located in Odum Library, on the 2nd floor.

Access Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU’s Access Office or email: access@valdosta.edu.

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

The instructor reserves the right to make changes or modifications to the syllabus upon notification of the class members.

SUGGESTED MINIMAL TOPICS/CONTENT

Sections correspond to *Mathematics for Elementary School Teachers* (4th ed.), by O'Daffer, et al.

Syllabus, Professional expectations, and Introductory activities (1 day)

Section 1.2: Inductive and Deductive Reasoning (2 days)

Section 1.3: Problem Solving (1 day)

Section 2.1: Sets and Whole Numbers (1 day)

Section 2.2: Addition and Subtraction of Whole Numbers (2 days)

Section 2.3: Multiplication and Division of Whole Numbers (2 days)

Section 2.4: Numeration (Systems and Place Value) (2 days)

Section 3.1: Strategies and Procedures for Mental Computation (1 day)

Section 3.2: Strategies and Procedures for Estimation (1 day)

Section 3.3: Algorithms for Addition and Subtraction (2 days)

Section 3.4 Algorithms for Multiplication and Division (2 days)

Section 4.1: Factors and Divisibility (2 days)

Section 4.2: Prime and Composite Numbers (1 day)

Section 6.1: Rational Number Ideas and Symbols (1 day)

Section 6.5: Comparing, Ordering, and Connecting Rational Numbers (1 day)

Section 7.1: The Concept of Ratio (1 day)

Section 7.2: Proportional Variation and Solving Proportions (1 day)

Section 7.3: Solving Percent Problems (1 day)

NOTE: Sections from chapters 6 and 7 are also covered in MATH 3161.