New Mexico State University Grants Campus

Math 111: Fundamentals of Elementary Mathematics 3Cr.(2+2P)

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Office hours: MW 12:30 – 1:00 p.m.; 3:30 – 4:30 p.m.
TuTh 9:00 – 11:00 a.m.; 1:45 – 2:15 p.m.
Or by appointment

Class Place & Time: MH 111, MW, 4:45 – 6:30 p.m.

Text: *Mathematics for Elementary Teachers: A Conceptual Approach, 7th Edition*, by Albert B. Bennett, Jr. and L. Ted Nelson.

Overview: Math 111 is an intuitive development of the arithmetic of real numbers: counting numbers, integers, rational numbers, decimal representations, real numbers and the fundamental operations. An introduction to probability in also included. Problems solving and reasoning abilities will be emphasized throughout. Prerequisite: A grade of C or better in CCDM 114N or high school algebra and an adequate score on the Elementary Algebra portion of the Computerized Placement Test. It is recommended that students have completed ENGL 111G.

Expected Outcomes: The primary objectives are mathematical: to provide a foundation in the theory of arithmetic as it pertains to the elementary school curriculum; to provide problem solving activities; to explore probability and applications; and to develop ideas for teaching arithmetic to elementary school children.

Instructional Activities: This course will be a combination of a traditional lecture course with a lab for discovering and exploring the mathematics being taught. The lab (one-third of the credit hours) is an opportunity for students to concentrate of developing problem solving skills and activities in concept building with the guidance and assistance of the instructor. Since many people "teach as they have been taught," emphases will include active learning with discussion, group work and concrete examples. Classroom activities and homework will help students understand and apply concepts, solve problems, analyze situations, discover patterns, formulate conjectures and infer mathematical principles.

Labs: There will be a lab each class period. These labs will consist of group work to explore, discover, and invent mathematics that is non conventional to learning mathematics. All labs will be facilitated and completed in class. Students will work in small groups to work labs. Labs can not be made up.

Homework: Homework will consist of working problems from the text and completing additional handouts. All homework must be completed in pencil. When handing in homework, the assignments should be stapled and in order, and it should be clear to the reader which answers go with which problems and/or their various parts. Assignments should be handed in at the beginning of the class period they are due. **Late homework will not be accepted**; a score of

zero will be awarded for a homework assignment not handed in on time.

For each section of the text and its corresponding exercise set, reflect on the following questions:

1. What key mathematical ideas are addressed?
2. What new insights do you have about the content?
3. What is the relevance of the content? Describe any "classroom connections" in the section.
4. What did you find difficult about the content?
5. What further questions do you have? (You are REQUIRED to pose at least ONE question.)

(Your reflection does not need to be elaborate but must convey that you understand the concept of the section)

Exams: The course will be a composition of four units. There will be a unit test over each of the four units. Each unit test will be given during class time, to the entire class, on a specified day. If a student fails to take a unit test on the day that it is given to the class, a score of zero will be awarded to the student for that test, and it may only be made up if the instructor determines that the student had a legitimate excuse for missing it. The instructor may require documentation (ex. Note from doctor for medical reason) in making such determination. If the instructor questions the legitimacy of the excuse, she will consult with, and abide by the opinion of the Campus Student Services Officer in determining whether the excuse is legitimate.

Arithmetic Skills Exam (ASE): Each student will be required to pass an arithmetic skills exam with a minimum score of 90% by the end of the fall semester. This exam will consist of basic math skills that must be mastered by a pre-service teacher. The skills range from basic arithmetic to general algebra.

Evaluation: Evaluation will be based on four tests worth 60% and an overall homework grade worth 40%. Ten points will be added to the score of the second test if a quiz over arithmetic is passed with a score of 90% or higher before the last day to withdraw from a class, October 17, 2006. The final grade will lowered one letter grade if the student does not pass the arithmetic quiz before finals week, or if the student has more than four absences.

Grading Scale:

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

Calculator: The use of a scientific calculator will be encouraged at times in this course. The recommended calculator is the TI-30XIIS.

Expectations:

You are expected to come to class regularly and on time. You will not be admitted if you arrive more than fifteen minutes late. You are expected to work collaboratively or independently as assignments dictate and submit all required work on time. Late assignments will not be accepted. I would expect that you will need to spend at least **eight hours** per week outside of class on this course. Be prepared to assimilate concepts over time, look at content from different perspectives, reflect upon your learning as the course proceeds. **Ask questions!** If there is material with which you are not fully comfortable, you are expected to ask questions either during class or during office hours.

Even though this course addresses the content of elementary school mathematics, "elementary" does not imply that the course content is easy or trivial. It is our goal to develop a deeper understanding of the content elementary school mathematics so that you can become successful, effective, and vertisatile teachers and become life-long learners. There is a significant amount of homework in this course. Expect to devote at least six hours per week to this course. If you are struggling with the content, you may need to devote more time. Please seek appropriate assistance to help you complete your work within a reasonable amount of time.

This course is specifically designed to help you become a successful professional as an elementary (or middle) school teacher. Therefore, professional conduct is expected in all aspects of this course inside and outside of the classroom. Respect for fellow classmates, the instructor, and the content is expected. As a positive attitude will be necessary part of your success as a teacher, a positive attitude is necessary in this course. Cell phones and pagers must be turned off. If yours rings during class, you will be expected to take your possessions and leave class for the day.

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Material from the text is to be covered as follows. Please read each section before coming to class.

Day	Date	Section Covered
W	8/23:	Introduction; 1.1
M	8/28:	1.2
W	8/30:	1.3
W	9/6:	Review for Test 1; Arithmetic Skills Exam
M	**9/11:**	**Test 1 (Ch. 1)**
W	9/13:	2.1
M	9/18:	2.2
W	9/20:	2.3
M	9/25:	3.1
W	9/27:	3.2
M	10/2:	3.3
W	10/4:	3.4
W	10/11:	Review for Test 2
M	**10/16:**	**Test 2 (Ch. 2 & 3)**
W	10/18:	4.1

Day	Date	Section Covered
M	10/23:	4.2
W	10/25:	5.1
M	10/30:	5.2
W	11/1:	5.3
M	11/6:	Review for Test 3
W	**11/8:**	**Test 3 (Ch. 4 & 5)**
M	11/13:	6.1
W	11/15:	6.2
M	11/20:	6.3
M	11/27:	6.4
W	11/29:	8.1
M	12/4:	8.2
W	12/6:	Review for Test 4
W	**12/13:**	**Test 4 (Ch. 6 & 8)**

Important Dates to Remember:

Labor Day Holiday-No Classes……Monday, September 4
Fall Break-No Class……...Monday & Tuesday, October 9 &10
Last day to drop a course with a "W"……...…Tuesday, October 17, 4:00 p.m.
Last day to Withdraw from the University……..….Friday, November 17, 4:00 p.m.
Thanksgiving Holiday-No Classes…..…..Wednesday – Saturday, November 22 - 25

SYLLABUS ADDENDUM

- The instructor may modify this syllabus to meet the needs of a particular class.

- If you have, or believe you have, a disability and would benefit from any accommodation(s), you may wish to register with the Student Services Office on the first floor of Martinez Hall. All medical information will be treated confidentially. After you have registered, please make sure that I receive a copy of the accommodation memorandum from Student services within the first two weeks of class. It will be the student's responsibility to inform the office of Student Services (in a timely manner) if services/accommodations provided are not meeting your needs. Feel free to call Ms. Irene Lutz, Campus Student Services Officer at 287-6629 with any questions about the Americans with Disabilities Act (ADA), and/or Section 504 of the Rehabilitation Act of 1973.

- If you have a condition that may affect your ability to exit safely from the premises in an emergency or that may cause an emergency during class, you are encouraged to discuss any concerns with Ms. Irene Lutz, Campus Student Services Officer at 287-6629.

- Any student found guilty of academic misconduct shall be subject to disciplinary action. Academic misconduct includes, but is not limited to, the following actions: cheating; helping other students cheat; plagiarism; unauthorized possession of examinations, reserve library materials or laboratory materials; unauthorized changing of grades on an examination, instructor's grade book or grade report; nondisclosure or misrepresentation in filling out applications or other college records. The following disciplinary actions and sanctions may be imposed for any of the above infractions of regulations: Disciplinary Probation, Disciplinary Suspension, Dismissal, and Expulsion. At the very least, academic misconduct may result in a failing grade in this class.

- Students are expected to attend regularly all classes for which they are registered. When the number of absences is excessive and hinders a student's progress, the instructor may recommend expulsion from the class. For a 15-week course, that means more than **three consecutive absences or five cumulative absences**. Based on the recommendation of the instructor, and with the concurrence of the Campus Instructional Officer and the Campus Student Services Officer, a student will be dropped for persistent absences or for persistent failure to complete class assignments. Similarly, a student may be dropped for behavior that interferes with the educational environment of the class. Any student who has been dropped has the right to appeal through the student Academic Grievance Policy (see Student Handbook).