

DEPARTMENT OF MATHEMATICS SYLLABUS

Course # & Name: MAT 71: Elementary Exploration in Mathematics

Recommended Text(s) & Price: Math matters, Understanding the Math You Teach by Chaplin and Johnson \$15

Prepared by: Leslie Young About Teaching Mathematics by Burns \$20
 UPC Approval Date: Fall 2004

Lecture(s)	Sections	Comments/Topics
FALL TERM 1	<i>Math Matters</i> Chapter 1 <i>About Teaching Math</i> Part II-Number Part III – Beginning Number Concepts Part III – Place Value	
2	<i>Math Matters</i> Chapter 2 <i>About Teaching Math</i> Part III - Introduction	
3	<i>Math Matters</i> Chapter 3 <i>About Teaching Math</i> Part III – Addition and Subtraction	
4	<i>Math Matters</i> Chapter 4 <i>About Teaching Math</i> Part III – Multiplication Part III – Division Part III – Expanding Multiplication & Division	
5	<i>Math Matters</i> Chapter 5 <i>About Teaching Math</i> Part III - Fractions	
6	<i>Math Matters</i> Chapter 6	

	<i>About Teaching Math</i> Part III – Teaching Decimals	
7	<i>Math Matters</i> Chapter 7 <i>About Teaching Math</i> Part III - Percents	
WINTER TERM 1	<i>Math Matters</i> Chapter 8 <i>About Teaching Math</i> Part II – Patterns, Functions, and Algebra	
	<i>Math Matters</i> Chapter 9 <i>About Teaching Math</i> Part II - Geometry	
	<i>Math Matters</i> Chapter 10 <i>About Teaching Math</i> Part II – Logical Reasoning	
	<i>Math Matters</i> Chapter 11 <i>About Teaching Math</i> Part II - Measurement	
	<i>Math Matters</i> Chapters 12 & 13 <i>About Teaching Math</i> Part II – Probability & Statistics	

Additional Notes:

Twenty weeks is not enough time to teach the students all the math they need to know to teach elementary school, but it is enough time to teach them how to learn math on their own and increase their confidence in their ability to do math.

For each topic, the students should be in different groups of 3 or 4. The lab day should be devoted to group work. During this time the groups should work on and explore activities that are in the books or supplemented by the teacher (preferably both). During this time it is very important that the teacher mingle, listen, and ask questions to help students keep moving in the right direction, and to help the students learn how to explore math.

Another class period can be set aside for group presentations to help students become comfortable using math terms and explaining mathematical ideas to others.

The remaining class period can be used for whatever is appropriate each week, possibly additional presentation or activity time, giving feedback on the week's accomplishments, and/or planning for the next topic.