COURSE DESIGNATION: MAT 331. Mathematics Through Problem Solving. Professional subject matter of elementary school mathematics. Prerequisite: MAT 131. 3 credit hours.

ACADEMIC NEEDS: If a student has a disability that qualifies under the American with Disabilities Act and requires accommodation, the student should contact Dr. Richard Houston 662-(846-4690) for information on appropriate policies and procedures.

GENERAL OBJECTIVES: This course is more than a mathematics content course. The course assumes that the prospective teacher has knowledge of the content of elementary school mathematics and is designed to provide the prospective teacher with strategies for teaching mathematics. The National Council of Teachers of Mathematics document, Curriculum and Evaluation Standards for School Mathematics, lists five general goals for all students. All students will
· learn to value mathematics,
· become confident in their ability to do mathematics,
· become mathematical problem solvers,
· learn to communicate mathematically, and
· learn to reason mathematically.
The NCTM document, Principles and Standards for School Mathematics, released in April, 2000, addresses six principles for school mathematics: equity, curriculum, teaching, learning, assessment, and technology. These goals and principles are also goals and principles for the students in this class.
Students in this course will also
· develop proficiency in modeling mathematical concepts using a variety of concrete materials,
· apply critical judgment to resources for the purpose of investigating materials and strategies,
· compare traditional approaches to teaching and learning mathematics to current research on how children learn,
· use technology appropriately in teaching and learning mathematics for elementary school, and
· compare national standards to the Mississippi Curriculum Framework for mathematics.

CONTENT TO BE CONSIDERED:
~ Numeration and number sense
~ Operations on whole numbers, fractions, decimals, including meanings, algorithms and diagnosis of computational errors
~ Mental computation and estimation
~ Patterns and relationships
~ Problem Solving
~ National and state standards for teaching mathematics

PRESENTATION METHODS
~ Lecture/discussion
~ Small groups
~ Laboratory activities
~ Demonstrations

ACTIVITIES AND REQUIREMENTS
~ Passing required skills test at the 80% or better level.
~ Full participation in class discussions and in-class activities. One participation point is earned each class period.
~ Written examinations (2 tests and 1 final examination).
~ Class demonstration (a carefully planned presentation focused on content and teaching strategies).
~ Demonstration of understanding of readings.
~ Text and video reflections.
~ Technology connections.
~ Literature connection.
~ Notebook, 3 ring about 1 ½ in. with plenty of loose-leaf notebook paper and dividers.
~ Calculator for outside assignments.
~ Assignments must be turned in to the instructor in a timely manner.
~ Scheduled tests will be announced at least one week in advance.
~ Students are encouraged to work together on assignments unless specific directions are given that prohibit such collaboration.
EVALUATION AND GRADING

The grading scale used in this course is the following percentage of total points:

A 100%-94%  B 93%-84%  C 83%-74%  D 73%-65%  F Below 65%

o Test I
o Test II
o Presentations, demonstrations, literature connection, homework, and writings
o Class participation
o Final Exam

20%  20%  30%  10%  20%

Cheating on tests or plagiarism on out-of-class work, etc. will result in serious academic penalty, including, but not limited to, a zero on the work in question.

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Everything you turn in should be your best work. You are going to be a teacher. This means something very special in terms of how much you have to demand of yourself if you ever intend to demand excellence of your students. You should do each of the required activities to learn something important about teaching and learning mathematics. You should not do any of them just to fulfill a requirement. Children deserve the very best!

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ATTENDANCE POLICY

Being in each class for the entire period is directly related to doing well in mathematics. Class time will be spent learning together and modeling lesson development and activities appropriate for problem-centered learning. You are responsible for all things we do in class. If you are absent, it is your responsibility to understand what you missed. This is very important. Many of the in-class activities that contribute to course understanding are very difficult to make up.

For classes that meet one day a week, students are allowed a maximum of two (2) absences, excused and unexcused. A student who has more than two absences automatically earns a grade of “F” in this course. Absences will begin to accrue the first official day that this class meets, regardless of when you actually enroll in the class. If a student is tardy for class, it is the student’s responsibility to see that the absence is changed to a tardy on the day that the tardy occurs.

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WITHDRAWAL

The withdrawal process is not complete until the drop slip has been signed by all designated parties and the completed form has been turned in to the Registrar’s office. Students who remain in the course after January 27 and who elect to withdraw from the course will receive a grade of W if passing or F if failing the course at the time of the withdrawal.

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COMPUTERS

This course will be taught with the use of computers. Any questions regarding computer problems such as Internet access should be directed to the OIT Helpdesk (662-846-4444). Remember – your instructor is not a computer expert.

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ELECTRONIC DEVICES

All electronic equipment should be turned off and put away during the class period. Use of any electronic equipment not approved of by your instructor during a test will be considered cheating and appropriate action will be taken.

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IMPORTANT DATES

January 26 Last day to change from credit/audit  April 30 Last day to withdraw from a course with W/F
January 27 Last day to withdraw without W/F  May 3-7 Comprehensive Final exams

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TEACHER

Dr. Leslie Horton  Email: lhorton@deltastate.edu  Walters 270-D  Office: 662-846-4512

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OFFICE HOURS

It is extremely important that you understand the day’s material and complete the homework assignments from each class meeting before we meet another class. Please feel free to call during the hours below or at other appropriate times.

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MAT 331 Mathematics Through Problem Solving - Syllabus – Spring Semester, 2010

ACTIVITES AND REQUIREMENTS:
- Passing required skills test at the 80% or better level.
- Full participation in class discussions and in-class activities. One participation point is earned each class period.
- Performance assessments.
- Written examinations (2 tests and 1 final examination).
- Class demonstration (a carefully planned presentation focused on content and teaching strategies).
- Demonstration of understanding of readings.
- Text and video reflections.
- Technology connections.
- Literature connection.
- Notebook, 3 ring about 1 ½ in. with plenty of loose-leaf notebook paper and dividers.
- Calculator for outside assignments.
- Assignments must be turned in to the instructor in a timely manner.
- Scheduled tests will be announced at least one week in advance.
- Students are encouraged to work together on assignments unless specific directions are given that prohibit such collaboration.

AMERICANS WITH DISABILITIES ACT:
Delta State adheres to the requirements of the Americans with Disabilities Act. Any student who desires accommodation under this Act due to a disability should contact Dr. Richard Houston in the Office of Disability Services at 846-4690.

ATTENDANCE POLICY:
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CONTACT INFORMATION AND OFFICE HOURS:
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Operations on whole numbers, fractions, decimals, including meanings, algorithms and diagnosis of computational errors
Mental computation and estimation
Patterns and relationships
Problem Solving
National and state standards for teaching mathematics

COURSE DESIGNATION:
Prerequisite: MAT 131. 3 credit hours.
ELECTRONIC DEVICES:
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- Test I: 20%
- Test II: 20%
- Presentations, demonstrations, literature connection, homework, and writings: 30%
- Class participation: 10%
- Final Exam: 20%

Cheating on tests or plagiarism on out-of-class work, etc. will result in serious academic penalty, including, but not limited to, a zero on the work in question. I Everything you turn in should be your best work. You are going to be a teacher. This means something very special in terms of how much you have to demand of yourself if you ever intend to demand excellence of your students. You should do each of the required activities to learn something important about teaching and learning mathematics. You should not do any of them just to fulfill a requirement. Children deserve the very best!

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IMPORTANT DATES:
- January 27: Last day to withdraw without W/F
- January 27: Last day to change from credit/audit
- April 30: Last day to withdraw from a course with W/F
- May: Final exam

PRESENTATION METHODS:
- Lecture/discussion
- Small groups
- Laboratory activities
- Demonstrations

WITHDRAWAL:
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