Casper College Course Syllabus

Course: Math 1100-N1: Math for Elementary Teachers I
Semester: Fall 2006
Lecture Hours: 3 Lab Hours: 0 Credit Hours: 3
Class Time: Internet Course
Instructor: Susan Nelson Office: PS 337
Office Phone: 268-2615 Email: snelson@caspercollege.edu
Office Hours: Mon-Fri: 7:30 – 8:00, Mon – Fri: 9:00 – 10:00, Mon, Tues, Thurs: 11:00 – 12:00—
Please contact me if these hours do not work for you!

Course Description: This is a required course for all prospective elementary teachers and a
recommended course for junior high school teachers. The course content includes a study of
problem solving, the origin of numeration systems, sets, relations and functions, the
properties of whole, integer, rational, and real numbers, and algorithms for addition,
subtraction, multiplication and division in base 10 and in other bases (From Casper College
Catalog). Prerequisites: Math 1000, Problem Solving. EDCI 1410-N1 MUST be taken concurrently with Math 1100-N1

General Objectives: The 2000 draft of the standards states: "More than any other single
factor, teachers' influence what mathematics students learn and how they will learn it.
Students' mathematical knowledge, their abilities to reason and solve problems, and their
self-confidence and dispositions towards mathematics are all shaped by teacher's
mathematical and pedagogical decisions" (Principles and Standards for School Mathematics: Discussion Draft pg30).

Consequently, the purpose of this course is to provide prospective elementary school
teachers with an understanding and mastery of the mathematical skills, concepts, processes,
thories, and applications necessary to enable the teacher to make appropriate
"mathematical and pedagogical decisions" pertaining to the teaching of mathematics at the
elementary level.

Specific Objectives: Students who successfully complete this course will:
1. Develop skills in subject areas listed in the general objectives.
2. Learn to work abstractly with mathematical symbols and functions.
3. Develop oral and written communication skills in Mathematics.
4. Develop problem solving skills.
5. Develop confidence in their ability to use mathematics.
6. Develop an appreciation for the power and beauty of mathematics
7. Be prepared to enter MATH 1105

Materials Needed:
Calculator: You will need a scientific calculator for some of the problems. If you get a
graphing calculator, I suggest the TI-73 – it was designed for students in grades 5-8. The TI-73 is not required. You can rent calculators from the Math Lab, PS 104.
**Internet:** You will be required to have access to the Internet. You may access the Internet via the Casper College Computer Labs.

**Methodology:** This is a distance course – there are no lectures. It will be YOUR responsibility to read the text, keep up with the assignments and ask for help when needed. I recommend that you study with the intent to understand and not just to get by on the exam - think about how you will explain the concepts we are studying when you are "the teacher." I will also schedule several optional live help sessions throughout the semester – you will be encouraged to attend. You will also be encouraged to stop by for individual help as needed.

**Evaluation Criteria:** Your letter grade will be based on your performance (not effort) on the following tasks:

**Exams (approx 50%):** A midterm and final exam have been scheduled. Both exams will be administered via WebCT and will require an approved proctor – as well as computer/internet access. I will mail/email your proctor instructions along with the password that will enable you to access the exam. Most students find a teacher, religious leader, tutor center, or librarian to proctor the exam. If you live near campus, you may take the exam in the Math Lab. You are required to take all exams during the exam window (usually a week). Any exceptions must be approved in advance. In the event a unit exam is unavoidably missed, you should contact the instructor ASAP.

**Assignments/Quiz/Projects (approx 40%):** Projects may consist of in-class group projects, calculator activities, peer teaching assignments, fundamental skills assignments, expanded homework assignments, article reviews, WebCT discussions, or short papers. I suggest that you organize these projects by creating a teaching resource folder. You will also be submitting a quiz almost every week – I will ask about homework questions on the quiz. In general, quizzes will not be accepted late.

**Discussions (10%)** You will be required to participate in class discussions. I require all discussion messages to be courteous. Please keep everything in good taste - be tactful in your responses. To contribute to the discussion, click "discussions" on the home page. Besides submitting “meaningful” discussion contributions, you will also be expected to read at least 75% of what your classmates post.

**Grading Scale:** You are guaranteed a traditional grading scale of 90%+ A, 80-89% B, 70-79% C, 60-65% D, 59% or Less: F. But I reserve the right to lower this without notice if I deem it necessary.

**Student Rights and Responsibilities:** Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College student.

**Chain of Command:** If you have any problems with this class, you should first contact the instructor in order to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take your problem through the appropriate chain of command starting with the department head, then the division chair, and lastly the vice president for academic affairs.
Academic Dishonesty - Cheating & Plagiarism: Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct.

ADA Accommodations Policy: It is the policy of Casper College to provide appropriate accommodations to any student with a documented disability. If you have a need for accommodation in this course, please make an appointment to see me at your earliest convenience.

If you are having problems in the course - or have concerns, please contact ME FIRST.

Course Content: See schedule below.

Last Day to Withdraw: Nov 3, 2006 will be the last day to drop this class. If you are thinking about changing your class status, you must contact me BEFORE this date. I do NOT allow audits!

Help: I recommend you keep up with the class. If you need help, then get it . . . FAST! I will be available to help by appointment. Call me or email me! I want you to succeed! My office is open, and I can meet 'online' in the chat rooms!

How to be successful in a distance course: If you were taking a regular “live” Math 1100/EDCI 1410 course during the fall, you would be required to attend three 50-minute lectures each week. (not including time spent out of class on assignments). I STRONGLY suggest you set aside at least 10 hours a week to work on this class – many of you will need to spend more time than this in order to be successful. I also suggest you start off each week by reading the assignment and the section notes before studying the text. You should also contact me ASAP if you encounter difficulties.

IF YOU ARE HAVING TROUBLE IN THIS CLASS, PLEASE CONTACT ME AS SOON AS POSSIBLE!!!

Let’s have a GREAT semester!

<table>
<thead>
<tr>
<th>WEEK</th>
<th>SECTIONS</th>
<th>SEMINARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chapter 1--Foundations</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Section 1.2 and 1.3—More on Problem Solving and Patterns</td>
<td>Seminar 1</td>
</tr>
<tr>
<td>3</td>
<td>Section 2.1, Sets</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Section 2.2—Algebraic Thinking</td>
<td>Seminar 2</td>
</tr>
<tr>
<td>5</td>
<td>Section 2.3—Numeration</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Exam 1, Section 3.1 and 3.2—Adding and Subtraction</td>
<td>Seminar 3</td>
</tr>
<tr>
<td>7</td>
<td>Sections 3.3 and 3.4—Multiplying and Dividing</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Section 4.1—Divisibility and Factors</td>
<td>Seminar 4</td>
</tr>
<tr>
<td>9</td>
<td>Fall Break, Section 4.2—Prime and Composite Numbers</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Section 4.3—GCF and LCM</td>
<td>Seminar 5</td>
</tr>
<tr>
<td>11</td>
<td>Exam 2, Section 5.1</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Section 5.2 and 5.3—Fractions &amp; Rational numbers and Understanding Operations on Fractions</td>
<td>Seminar 6</td>
</tr>
<tr>
<td>13</td>
<td>Section 5.4—Beyond Integers and Fractions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Section 6.1—Ratio and Proportion</td>
<td>Seminar 7</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>15</td>
<td>Section 6.2--Percents</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Exam 3</td>
<td>Seminar 8</td>
</tr>
</tbody>
</table>

**Finals**