Math 141 **Office Hours: 2:00 – 3:00 Mon & Wed**
Spring 2011 **11:00 – 12:00 Tues & Thursday**
Mrs. Karen Spike **(other times by appointment)**
Office: Bear Hall, room 121 Phone: 962-3823 UNCW email: spikek

Classes: MAT 141 at 9:30-10:45 Tuesday & Thursday, Bear Hall, room 101.
I also teach MAT 112 at 9:00, 10:00 and 1:00 on Monday, Wednesday & Friday.
TEXT:

> <u>**Mathematics: For Elementary Teachers, A Contemporary Approach**</u> , Ninth edition, by
> Musser, Burger and Peterson. Math 141 includes chapters 1-9. An access code for WileyPLUS,
> Version 5 is **also required** for online homework. The WileyPLUS access code comes in a purple
> & green cardboard envelope and should be included with the purchase of the text in the UNCW
> bookstore. (See email for additional information.)

INTRODUCTION: Welcome to Math 141, Basic Concepts of Mathematics I.

> The purpose of this course is to develop a better understanding of basic mathematics. While
> studying concepts such as problem solving, logical reasoning, sets, number theory, whole
> numbers, integers, rational numbers, and decimal numbers, you will extend your ability to
> understand and use mathematics. Most of you are planning to teach in elementary or middle
> school, so in addition to your being able to **do** mathematics it is very important that you are able to
> **explain** how to do mathematics. Whether or not you plan to teach, this course should help you
> understand mathematics better so that you will be able to apply it to everyday life.
> This is a blended course meeting in class but also includes an online Blackboard course. Course
> information will be available online by chapters (modules). There will be online assignments and
> homework, but we will meet for in-class discussion & activities during our regularly scheduled
> class time. You can access the online Blackboard part of this course thru mySeaport on the
> UNCW website or directly using http://learn.uncw.edu. Students are expected to read the text and
> online lectures notes for each section before coming to class.

GRADING:

> **Doing the Homework** is an essential part of the course. When you purchased your textbook you
> should have received an envelope with an **access code for WileyPlus online homework**. The
> link to login to do online homework is in the Blackboard Course Website. I will give frequent
> **quizzes** to evaluate how well you understand the material covered. **There are no makeup
> quizzes.** Each quiz missed is a zero, but this will not affect your grade until you miss more than
> two quizzes, since I will drop your two lowest quiz grades. **Your participation in the online
> portion of this class (reading each module as it is assigned) will count as part of your grade.
> In order to receive the points for each module, you need to read the module for each chapter
> before your first quiz on that chapter**. There will be 3 **tests** during the semester, and a
> **cumulative final exam.** There are **no makeup tests without prior permission**. **At anytime
> during the semester you can calculate your grade by dividing your total points by the total
> points possible, converting to a percent,** and then use the following scale:

93-100% **A**, 90-92% **A-**	**quizzes = 100 points**
87-89% **B+**, 83-86% **B**, 80-82% **B-**	**Online homework = 100 points**
77-79% **C+**, 73-76% **C**, 70-72% **C-**	**3 tests at 100 points each = 300 points**
67-69% **D+**, 63-66% **D**, 60-62% **D-**	**Online biography = 5 points**
below 60% **F**	**9 online modules at 5 points each = 45 points**
	Final exam = 150 points
	Total points for the semester = 700 points

> (If your semester % in on the border between grades, I consider such factors as attendance and
> improvement.)

LEARNING CENTER:

The University Learning Center (Math Lab), located in DePaolo Hall, is available for students to receive free tutoring for this course. More information (location, hours of operation, etc.) can be found at the following link: http://www.uncw.edu/ulc/ . Students who visit the Math Lab can get help with math study skills and math anxiety. Math tutors help students make the transition to college mathematics as well as supporting students in math and statistics courses. Math Services is now offering one-on-one appointments for MAT 112, MAT 115, MAT 141-142, MAT 161-2, and STT 215. Students can set their own appointments through the website: http://www.uncw.edu/ulc/appointmentinstructions.html

ATTENDANCE POLICY:

It is very important that you attend class regularly! If you must miss class, the following syllabus, and updated online syllabus and modules, will let you know what we covered and you are responsible for doing the assigned work. More than three absences is considered excessive. Feel free to talk with me if you have an attendance problem. **If you are absent 3, or fewer, classes you have the option of replacing your lowest test score with your percentage from your final exam.**

STUDENT DISABILITIES:

UNCW Disability Services supplies information about disability law, documentation procedures and accommodations that can be found at **http://www.uncw.edu/stuaff/disability/**. To obtain accommodations the student should first contact Disability Services and present their documentation to the coordinator for review and verification. (If you think that you would qualify for disability testing or accommodations during this course, contact the Office of Disability Services in DePaolo Hall, first floor, 910-962-7555.)

HONOR CODE:

"All students enrolled at UNCW are subject to the UNCW Student Academic Honor Code, which is intended to help every member of the UNCW community appreciate the high value placed on academic integrity and the means that will be employed to ensure its preservation**."** For the new honor code please see this website http://www.uncw.edu/stuaff/odos/honorcode/ .

CELL PHONES: Use of a cell phone is not allowed during class time.

Bring a calculator for tests and quizzes; you may NOT use your cell phone as a calculator.

Religious Observance Policy:

In accordance with NC SL 2010-211, you are entitled to two excused absences for religious observances **per academic year**. You must inform me in writing the first week of class if you will be missing any classes due to a religious observance. In addition, you must inform the Registrar the first week of class who will then confirm your intentions to miss class with the impacted course instructors. Otherwise, any absence for religious purposes will be considered unexcused.

EMERGENCY HOTLINE:

If the university is officially closed, the hours of closing will be announced on the emergency hotline (910-962-3991 or toll-free 888-657-5751) and published on @UNCW.

"UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-2222, or Wilmington Police at 911. For University or community resources visit http://www.uncw.edu/wsrc/crisis.html or http://www.uncw.edu/stuaff/care/

IMPORTANT DATES: **http://www.uncw.edu/reg/calendars.htm**

Wednesday, January 18th – Last day to add a class, or drop without a grade.

Thursday, February 16th – **Test 1** on chapters 1 and 2

Tuesday, February 28th – Last day to withdraw with a **W**

Final exam schedule - http://www.uncw.edu/reg/exams-spring12.htm

You can access the Blackboard course web site thru mySeaport or directly at http://learn.uncw.edu
The following SCHEDULE IS SUBJECT TO REVISION, but is my best estimate of when each section should be done.

Note: Please see the **Bb Course** for additional information. Use the **link for sample quizzes and tests under Course Resources** on the Blackboard web course homepage. <u>In order to receive the points for each module, you need to read the module for each chapter before your first quiz on that chapter.</u>

DATE		Please follow this schedule to keep up with your assignments in this course.
week1-2		**Topics covered in weeks 1-2: Problem solving, chapter 1, then Sets in chapter 2**
Jan 12th		We will discuss section 1.1 and do some problems in class. Please read and follow the directions in the introductory announcements on the course website. **Read module 1** under Learning Modules in the Blackboard course web site. Register for the WileyPLUS homework. Study section 1.1 in the textbook, then begin the online homework. Think about the problem solving strategies and list the strategies you used for each problem.
Jan 17		Study section 1.2 in the textbook, then begin the online homework. Think about the problem solving strategies (page 4 in the textbook) and list the strategies you used for each problem.
Jan 19		Continue working problems from sections 1.1 and 1.2. For **quiz** # 1, **Hand in today** these **problems from your textbook**: section 1.1 set B # 8, 19 & sec 1.2 set B #1a,b,c, 3, 23. Show all your work and list the problem solving strategies you used for each problem. The WileyPLUS online homework for 1.1 & 1.2 is due Wednesday, January 25th at 11 pm.
Week 3		**Chapter 2: Sets and Historical Number Systems**
Jan 24		Continue working on homework for sections 1.1 & 1.2; it is due tomorrow at 11 pm. Study section 2.1 on understanding Sets and begin the online homework. The WileyPLUS homework for 2.1 is due Monday, January 30 at 11pm **Read module 2** under Learning Modules on the Blackboard course web site.
Jan 26		Continue working on homework for section 2.1; it is due Mon, Jan 30 at 11 pm; We will discuss section 2.2 in class today; begin online homework problems.
Week 4		**Historical number systems, Hindu-Arabic Numerals and Functions**
Jan 31		**Quiz on 2.1.** More discussion of section 2.2. HW for 2.2 is due Thursday, Feb 2nd at 11pm. Study section 2.3 & begin online homework. HW for 2.3 is due Monday, Feb 6th at 11pm.
Feb 2		Further work with sections 2.2 & 2.3 and introduction to section 9.3 about functions, due Feb 8
Week 5		**Review for test 1 then do chapter 3 Whole numbers: Operations and Properties**
Feb 7		**Quiz on sections 2.2 & 2.3**. Continue 9.3, online homework - due Wed, Feb 8th. Do Sample Test 1; link is in Blackboard Learn on homepage under "Course Resources".
Feb 9		**Read Module 3 in Blackboard course** and study section 3.1 & 3.2; begin online homework.
Week 6		**Whole numbers: Computations**
Feb 14		Continue work on sections 3.1 & 3.2; WileyPLUS homework due Wed, Feb 15 & Th Feb 16th
		Study section 3.3 and begin online homework; due 11pm Wednesday, Feb 22nd
Feb 16		**Test 1 on chapters 1 & 2. Finish your study of chapter 3 using textbook and modules. Read Module 4** in Blackboard Learn. **Begin** sections 4.2 & 4.3.
Week 7		**Whole numbers: Computations, including Mental Math & Estimation**
Feb 21		Review chapter 3 and begin sections 4.2 & 4.3; homework due Wednesday, Feb 29th.
Feb 23		**Quiz on chapter 3. C**ontinued discussion of 4.2-4.3 and introduction to 4.1. Homework for 4.1 due Thursday, March 1st.

Course Catalog Description:

MAT 141. Concepts of Mathematics: Numbers, Operations, and Problem Solving (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test or MAT 105. A conceptual examination of mathematics content that is aligned with elementary and middle grades curriculum. Topics include the real number system and related operations.

Goals:

The purpose of MAT 141 is to develop a better understanding of the areas of mathematics that are covered in the standard course curriculum of kindergarten through 8th grade. Content focuses on the concepts of problem solving, logical reasoning, sets, number theory, whole numbers, integers, rational numbers, and decimal numbers. Students will extend their ability to understand and use mathematics in ways that have them move beyond trying to get a correct answer to that of a future-teacher who understands the content and sees the connections between topics. As future elementary or middle grades teachers, in addition to being able to *do* mathematics, students are expected to *explain* mathematics. There is an emphasis on the NCTM Principles and Standards for School Mathematics and the North Carolina Mathematics Standard Course of Study. We will look at multiple representations of topics, connections between topics, and problem solving. Where appropriate, technology is used to support content and improve student proficiency with technology and problem solving.

MAT 141 will count for the Mathematics and Statistics requirement in University Studies by supporting all the Common Student Learning Outcomes for that category. If another course is used to meet the Mathematics and Statistics requirement of University Studies, MAT 141 may count for the Quantitative and Logical Reasoning requirement by supporting all the Common Student Learning Outcomes for Quantitative and Logical Reasoning.

Course Student Learning Objectives:

1. Students demonstrate knowledge of logical reasoning, sets, number theory, whole numbers, integers, rational numbers, and decimal numbers.

    a. Represent and communicate about content in different ways, through visual, verbal, and numerical methods.
    b. Summarize topics with a short verbal explanation and explain why various procedures and formulas are appropriate, rather than only providing example problems.
    c. Pose and solve mathematical problems.

2. Students work effectively, both individually and in groups, to solve mathematical problems.

3. Students demonstrate ability to use technological tools appropriate for elementary and middle grades teaching in ways that support content and enhance problem-solving situations.