Syllabus

Three Rivers Community College
MAT 135 – Topics in Contemporary Math
Fall 2010
Course Registration Number (CRN) – 31511 Sec. T01
Thursday   6:00-8:45 pm, Room D222

INTRODUCTION

Welcome to MAT 135! MAT 135 is your opportunity to explore mathematics that is interesting, beautiful, fun, and powerful. We will investigate applications from the following topics: linear and exponential growth, symmetry, finances, and history of mathematics. We will do all this in a cooperative setting. Math is best learned by doing it, so we will do many problems in class and you will have frequent homework assignments.

In addition to discussing mathematical ideas and techniques for problem solving, in this course we will emphasize the development of critical thinking skills to help make sense of the world. This includes skills such as reading carefully, recognizing unstated assumptions, paying attention to details as well as to the big picture, and connecting past learning with current topics.

THE BASICS

Instructor:

Roxanne N. Tisch
Office: C248
Office Hours: Tuesday 10:45 – 11:45 am
                          Wednesday 9:00 – 10:00 am
                          Thursday 5:00 – 6:00 pm
Email: rtisch@trcc.commnet.edu
Phone: 860-885-2367

Required Materials:

♦ The required text is Math is Everywhere! Explore and Discover It! (3rd Edition), James Rutledge, 2008
♦ Notebook or binder
♦ Graph paper

Course Objectives:

This course should help students:
1. Learn how to learn both independently and collectively from peers rather than passive learning
2. Develop skills of inquiry, abstract and logical thinking, and critical analysis
3. Develop the ability to understand and use numbers
4. Learn and apply concepts of elementary mathematics

STUDENT SUCCESS

Your learning and success are important to me. I want you to succeed by really knowing and understanding the material and being able to show it. You can give yourself the best opportunity for success by doing the following:

1. Review regularly – After every class, review the material that we discussed at your earliest convenience. It will also be helpful to review the appropriate section of the book.
2. Read ahead – It can be helpful to read each section and look at the homework before we discuss the section in class.
3. Ask questions – Feel free to ask me questions, either in class or outside of class.
4. Study by yourself – This should be quality time. It is best if you make a first attempt at each problem on your own.
5. Study with others – It is a good idea to work with a study group if possible. Other people have different approaches and additional insights.

Participation:

Your presence and participation are valued and important parts of this class. Please attend class every day, arriving early enough so that you are ready to go when class begins. Your participation in class can have a big impact on what you and others learn from this class. If you miss a class, please get notes and assignments from a classmate. Once you have done this, I will be glad to answer any questions you have about the material but I will not repeat the presentation(s) that you missed.

Attendance at exams is mandatory. You will be informed of the dates of tests at least one week in advance. Make-up exams may be given *with my prior consent*. If you must miss an exam, please speak with me before the date of the exam so that arrangements can be made.

Courtesy:

The following can be distracting to other students and should be avoided during class: private conversations, eating, texting, and other uses of cell phones or laptops.

Students with Disabilities:

If you have a disability that may require classroom or test-taking modifications, please see me as soon as possible so arrangements can be made. If you have not already done so, please contact the Learning Specialist, Chris Scarborough, at 892-5751.

Problem Solving Suggestions:

You will learn the most from homework only if you make an honest attempt at every problem that seems difficult to you at first. Don't give up too soon! Here are some suggestions if you are not sure what to do:

1. Reread the text and class notes about relevant material and sample problems.
2. Find a simpler example or try to create a simpler example.
3. Try something and see where it leads.
4. Spend at least a half an hour on the problem, then if you don't seem to be getting anywhere, give it a rest or seek help.

GRADING

Grading Policy:

Your grade will be based on the following items.

- ♦ Math Autobiography (25 Points)
- ♦ Weekly Homework assignments (100 Points)
- ♦ Classwork (100 Points)
- ♦ Two in-class tests – Each in class test will be worth 50 points.
- ♦ Projects – You will have two individual projects throughout the semester. Each project will be worth 50 points.
- ♦ Quizzes (50 Points)
- ♦ Final Reflection (25 Points)

The final grade will be determined by adding the points/averages for each category and dividing by 5. Letter grade equivalents are listed below:

Grade	Grade Points
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	Below 60

OTHER

College Withdrawal Policy:

You may withdraw from this class any time up to and including December 9 and you will receive a W grade on your transcript. However, you must complete a withdrawal form in the Registrar's Office at the time of withdrawal; *if you merely stop attending classes you will be assigned a grade of F*. Any eligibility for refund of tuition is based on the date that the registrar receives the withdrawal.

Academic Integrity:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor. A full copy of the college's academic integrity policy is in the school's catalog and in the student handbook.

COURSE SCHEDULE

This is only an approximation of when we will cover topics. Actual timeline is dependent on class activities and interest.

Class Number	Date	Chapter		Major Assignments
1	August 26	Chapter 1	Course Introduction; Analytical Reasoning	
2	September 2	Chapter 2	Deductive and Inductive Reasoning; Pattern Recognition; The Power of Generalization	Autobiography Due
3, 4	September 9, 16	Chapter 9	Linear Functions and Models	
5, 6	September 23, 30	Chapter 10	Exponential Growth Models	
7	October 7	Chapter 11	Financial Management and Planning	Test 1 – Chapters 9 and 10
8	October 14	Chapter 11	Financial Management and Planning	Project 1 Due
9	October 21	Chapter 7	Mathematical Perspective in Art	
10	October 28	Chapter 8	Fractal Geometry & Fractal Applications	
11	November 4	Chapter 5	Modular Arithmetic & Applications	
12, 13	November 18 December 2	Chapter 4	Number Bases and the Secret Language of Computers	
14	December 9	Chapter 3	Number Systems	Project 2 Due
15	December 16			Test 2; Final Reflection Due