

MAYLAND COMMUNITY COLLEGE
Welcomes You To:
Mat 140.20 – Survey of Mathematics
3 contact hours/3 credit hours
Spring 2007



Course Description:

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

Prerequisites: Mat 070

Corequisites: Mat 140A

Instructor Information

Instructor: Sandra Pierce
Office Location: Room 243
Telephone Number: 828-765-7351, ext 215
E-mail Address: spierce@mayland.edu
Office Hours: As posted, and by appointment
Faculty fax: 828-765-2327

Course Information

Meeting days and times: January 9 through May 8, 2007
Tuesday/Thursday at 6:00 pm to 7:20 pm, Room 213
Snow Schedule: n/a
Text and Materials: Blitzer, Robert. Thinking Mathematically. Third Edition. Upper Saddle River, New Jersey: Pearson/Prentice Hall., 2005.
Resource/LRC materials (if any): N/A
Required supplies: A TI-82 or TI-83 graphing calculator is suggested material for this class. A scientific calculator is required material if a graphing calculator is not purchased

Mayland Community College's General Education core courses will provide the essential body of knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society.

The Learning Outcomes for the General Ed core courses are for students to:

1. Improve communication in speaking and listening situations needed for college, personal, and work successes
2. Improve communication in writing and reading situations needed for college, personal, and work successes
3. Improve logical, critical, and creative thinking to evaluate evidence and reach a conclusion
4. Increase application of basic computer use skills

5. Increase application of fundamental math skills
6. Increase both independent and collaborative work skills
7. Increase exposure to the diversity of various world groups from both historical and contemporary contexts.

Course Objectives/Competencies:

This course provides an introduction in a non-technical setting to selected topics in mathematics. Students will:

1. Solve practical problems → LO 3, 4, 5, 6
2. Reason and communicate with mathematics → LO 1, 2, 3, 4
3. Work confidently, collaboratively and independently → LO 3, 4, 5, 6
4. Use a calculator accurately and appropriately → LO 1, 4, 5
5. Develop the ability to critically analyze a problem and select the most appropriate method of solution → LO 3, 5, 6

Attendance Policy/Tardiness/Make-Up Work:

Roll will be taken and you are expected to be in class each time it meets. You will be allowed one cut without grade penalty, but if you must miss a class you are responsible for obtaining notes, arranging for help on any material that you do not understand, and for turning in any work due in a timely manner. The only absences that are excused beyond the one allowed cut are personal religious holidays and absences which you have contacted me on or before the absence. If students must miss classes due to weather or for some other excused reason such as a doctor's appointment or sickness, I will trade documented tutoring time for class time. This must be time with an assigned tutor, the math lab, or me.

NOTE: Any student with 5 or more absences will automatically lose all 50 attendance points from his or her final grade point total for this class, exceptions made only at the discretion of the instructor. Any student more than 10 minutes late for class will be given a tardy. Three tardies constitute one absence.

If a student has not been in contact with the instructor and has not attended class for a consecutive two-week period, an administrative withdrawal will be submitted by the instructor. The student cannot re-enter the class.

I will not accept any makeup work for any reason after May 1.

Grading Criteria/Tests/Projects:

The final grade will be determined as follows:

| | |
|-----------------------------------|-------------------|
| Attendance ≈ 1.5 points per class | 50 points |
| Completion grade on homework | 100 points |
| 5 review quizzes @ 20 pts ea. | 100 points |
| 4 tests @ 100 points each | 400 points |
| Comprehensive final @ 150 points | <u>150 points</u> |
| Total points | 800 points |

Grading Scale:

- A** = 800 to 720 points (90-100%)
- B** = 719 to 640 points (80-90%)
- C** = 639 to 560 points (70-80%)
- D** = 559 to 480 points (60-70%)
- F** = 479 or below (59% or less)

Inclement Weather Procedures:

Students must use wisdom and discretion in case of inclement weather considering the geographic area in which we live. While this is college and students are expected to attend class, it is not advisable for students to risk bodily harm or property damage to attend. It is possible that day classes can be cancelled, but night classes will be held, or vice versa. It is necessary that you either call the school or listen to the radio stations that report school closings to determine whether or not class is being held on any days when the weather is uncertain.

Academic Standards/Student Expectations/Ethics:

Homework & Tests: All homework assignments are due within two classes after the material has been assigned. Late homework will not be accepted after the test on the material has been taken and returned. There will be no makeup tests given except in extreme cases, and at my discretion. There will be one drop grade on chapter tests. **You may not drop the final;** however any student who maintains at least a 90 average on all **five chapter** tests may exempt the final. All work must be shown to receive partial credit on any assignment. NEATNESS COUNTS. Please use only pencil or erasable pen.

Behavior: Students are expected to behave appropriately in class. Any excessive talking, profanity, leaving class or other inappropriate behavior will result in the student being asked to leave the class. A conference with student services will be required to return to class. Any one cheating on a test or quiz or presenting another person's work as his or her own work (plagiarism) will be given a zero for the assignment and referred to the Academic Vice President for further disciplinary action. Cheating is defined as giving or receiving assistance.

Incompletes: Incompletes will be granted **ONLY** in extreme circumstances and at my sole discretion. If an incomplete is granted, it is the student's responsibility to see that all aspects of the syllabus are completed prior to July 27, 2007. There will be no reminders sent or phone calls made to prompt the student to cure the incomplete. If the incomplete is not cured by the deadline above, the incomplete will automatically convert to an F for the course, and the entire course must be repeated.

Withdrawal Dates:

If you wish to audit this course or add another course, you must file a drop/add form with the registrar prior to January 12. If you cannot meet the course requirements or you must withdraw from this class, you must file a drop form with the registrar to avoid a failing grade on your transcript. You can withdraw unconditionally without grade penalty prior to February 13. From February 14 to March 27, you may withdraw with a grade of WP or WF, to be determined by the instructor. You may not withdraw from any class after March 27. Exceptions to this deadline will be made only in cases of extreme emergency (such as serious illness or family emergency.) This is a school wide Mayland Community College policy.

Disclaimer: While I have attempted to be as thorough as possible with this syllabus, course procedure may vary from this outline to meet the needs of this particular group. All dates contained in this syllabus are subject to change due to the weather and/or the discretion of the instructor.

Additional Information:

Any student requesting special accommodations for this course due to a disability should apply for services through the SOAR Office or the Counseling Center, which will document the disability. A counselor will then help determine which accommodations, if any, the student needs for success in this course.

"We are what we repeatedly do. Excellence, therefore, is not an act, it's a habit" -Aristotle

Course Outline/Weekly Topics

| Date assigned: | Sec: | Assignments: |
|--|---|---|
| 1/9 | 2.1 | 2 through 82, every other even |
| 1/9 | 2.2 | 2 through 74, every other even |
| 1/11 | 2.3 | 2 through 70, every other even |
| 1/15 – Martin Luther King Day – Campus Closed | | |
| 1/16 | 2.4 | 2 through 74, every other even |
| 1/16 | 2.5 | 1 – 8, all, 10 through 26, every other even |
| 1/18 | 3.1 | 2 through 38, even |
| 1/23 | 3.2 | 2 through 62, every other even |
| 1/23 | 3.3 | 2 through 36, even |
| 1/25 | 3.4 | 2 through 70, every other even |
| 1/30 | 3.5 | 2 through 74, every other even |
| 2/1 | | Review Chapters 2 and 3 |
| 2/6 | | Test on Chapters 2 and 3 |
| 2/6 | 6.1 | 2 through 78, every other even |
| 2/8 | Essay #1 due | |
| 2/8 | 6.2 | 2 through 90, every other even |
| 2/8 | 6.3 | 2 through 34, even, 36 through 48, every other even |
| 2/13 | 6.4 | 2 through 22, every other even, 24 through 40 even |
| 2/13 | 6.5 | 2 through 66, every other even |
| 2/15 | | Review Chapter 6 |
| 2/20 | | Test on Chapter 6 |
| 2/20 | 8.1 | 2 through 34, every other even, 36 through 68, even |
| 2/22 | Essay #2 due | |
| 2/22 | 8.2 | 2 through 30, even |
| 2/22 | 8.3 | 2 through 34, every other even |
| 2/27 | 8.4 | 2 through 20, even, 30 |
| 3/1 | 8.5 | 2 through 10, even |
| 3/1 | 8.6 | 2 through 8, even |
| 3/5 – 3/9 Spring Break – No Classes | | |
| 3/13 | | Review Chapter 8 |
| 3/15 | | Test on Chapter 8 |
| 3/20 | Essay #3 due | |
| 3/20 | 9.1 | 2 through 70, even |
| 3/20 | 9.2 | 2 through 48, even |
| 3/22 | 9.3 | 2 through 78, every other even |
| 3/27 | 10.1 | 2 through 32, even |
| 3/27 | 10.2 | 2 through 44, even |
| 3/29 | 10.3 | 2 through 44, even |
| 4/3 | 10.4 | 2 through 40, even |
| 4/3 | 10.5 | 2 through 36, even |
| 4/5 – Professional Development Day – No Classes | | |
| 4/6 – Good Friday – Campus Closed | | |
| 4/10 | | Review Chapters 9 and 10 |
| 4/12 | | Test on Chapters 9 and 10 |
| 4/17 | Essay #4 due | |
| 4/17 | 11.1 | 2 through 22, even |
| 4/17 | 11.2 | 2 through 54, every other even |
| 4/19 | 11.3 | 2 through 40, even |
| 4/24 | 11.4 | 2 through 62, every other even |
| 4/24 | 11.5 | 2 through 18, even |
| 4/26 | 11.6 | 2 through 70, every other even |
| 4/26 | 11.7 | 2 through 70, every other even |
| 4/26 | Portfolio Due (Include Essay 5 in the portfolio, if completed) | |
| 5/1 | | Review Chapters 11 and 12 |
| | | Test on Chapters 11 and 12 – Take home |
| 5/3 | | Final Review |
| 5/8 | | Comprehensive Final exam |