

MAYLAND COMMUNITY COLLEGE
Welcomes You To:
Mat 140.95 – Survey of Mathematics
3 contact hours/3 credit hours
Fall 2006

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
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E-mail Address: spierce@mayland.edu
Office Hours: As posted, and by appointment
Faculty fax: 828-765-2327

Course Information

Term: August 17 through December 14, 2006
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
Required Software: To access your online course you will need access to the Internet. For best results, use a Netscape or Microsoft Internet browser in version 5 or better. Although there are no absolute requirements, computers with faster Internet connections, faster processors, and more memory will get better results. Keep in mind that if you have difficulties connecting to the class or a slow connection, the problem could be occurring at many levels.

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

Units of Study

Module 1 Sets and Logic

Module 2 Algebra and Modeling

Module 3 Mathematics of Finance

Module 4 Metrics and Geometry

Module 5 Probability and Statistics

Attendance Policy/Tardiness/Make-Up Work:

Although experience in online course-taking is not required, students should prepare themselves for the unique setting of online learning. Online learning is reading and writing intensive and requires some basic technical skills. Successful online learners are good at scheduling their time in an organized fashion.

If you have not taken an online course, begin by reviewing the course calendar and making note of when assignments are due. Writing assignments are due on the Wednesday of each week. Practice using LEO, the Internet and e-mail through LEO. If you still have questions, don't be afraid to ask your instructor or other college staff for help.

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. If you have made no submissions or have not sent any e-mails to the instructor for two consecutive weeks, you are considered absent from class and will be withdrawn from the class. Once you have been withdrawn you may not re-enroll in the class until next semester.

I will not accept any makeup work for any reason after December 6.

Grading Criteria/Tests/Projects:

The final grade will be determined as follows:

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	750 points

Grading Scale:

A = 750 to 675 points (90-100%)
B = 674 to 600 points (80-90%)
C = 599 to 525 points (70-80%)
D = 524 to 450 points (60-70%)
F = 449 or below (59% or less)

Inclement Weather Procedures:

N/A

Academic Standards/Student Expectations/Ethics:

Homework & Tests: All homework assignments are due according to the submission guidelines on the course calendar. Homework is to be submitted all at once at the time of testing on each module. Leave your completed homework with the test on that particular module. Late homework will not be accepted after the test on the material has been taken and returned. E-mail the instructor with any questions you have on particular homework problems. You will receive a return e-mail with the answers. Questions on homework problems will be addressed to the entire class in case others have problems with the same homework question.

Complete each module review quiz on paper and send me your answers via e-mail, fax or hand deliver prior to taking the module test. I will review your quiz to see if there is anything you need to clarify or re-work prior to taking the test. Leave the hard copy of your completed practice quiz with the test on that particular module.

All module tests will be proctored. Appropriate arrangements will be made for a test proctor that is convenient to your location. There will be no makeup tests given except in extreme cases, and at my discretion. There will be one drop grade on module tests.

There is a comprehensive final exam worth 150 points. **You may not drop the final;** however any student who maintains at least a 90 average on all **five module** 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.

There is an optional comprehensive final review worth 25 points that may be submitted for extra credit.

Behavior/Academic Standards/Student Expectations/Ethics: In addition to good academic performance, students should exhibit honesty and integrity. If there is any question that academic honesty and integrity are not honored, students may be required to redo assignments in the presence of an instructor-selected monitor. Proof of dishonesty, including plagiarism, will make students subject to disciplinary action. Please consult your college catalog for more information.

Students are expected to behave appropriately in class, even online. Students must respect the comments and opinions of others on the discussion board. Students must refrain from profane language on the discussion board. 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 Dean for 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 April 28, 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 August 23. 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 September 22. From September 23 to October 30, you may withdraw with a grade of WP or WF, to be determined by the instructor. You may not withdraw from any class after October 30. 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.

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.

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.*

Remember! Procrastination on your part does not constitute an emergency on my part!

<p>Week 5 9/15 - 9/21</p>	<p>September 20 - Message Board Assignment 3 on Chocolate Math due Module 1 test - proctored Module 2 - Objectives 1 and 2 Reading Assignments: Read Section 6.1, 6.2 Homework Assignments: 6.1 1 through 81, every other odd 6.2 1 through 89, every other odd</p>
<p>Week 6 9/22 - 9/28</p>	<p>September 27 - Writing Assignment 2 on Inequalities due Module 2 - Objectives 3, 4 and 5 Reading Assignments: Read Sections 6.3, 6.4, 6.5 Homework Assignments: 6.3 1 through 49, odd 6.4 1 through 21, every other odd, 23 through 39 odd 6.5 1 through 65, every other odd, 75</p>
<p>Week 7 9/29 - 10/5</p>	<p>Module 2 Review Quiz Posted Module 2 Test - proctored Module 3 - Objectives 1 and 2 Reading Assignments: Read Sections 8.1 and 8.2 Homework Assignments: 8.1 1 through 33, every other odd, 35 through 69, odd 8.2 1 through 29, odd</p>
<p>Week 8 10/6 - 10/16</p>	<p>10/10 and 11 - Fall Break - No Classes October 11 - Writing Assignment 3 on Discounts due Module 3 - Objective 3, 4 and 5 Reading Assignment5: Read Section 8.3, 8.4 and 8.5 Homework Assignments: 8.3 1 through 33, every other odd 8.4 1 through 19, odd 8.5 1 through 11, odd</p>
<p>Week 9 10/17 - 10/23</p>	<p>October 18 - Writing Assignment 4 on Buying a House due Module 3 - Objective 6 Module 3 Review Quiz posted Reading Assignment: Read Section 8.5, 8.6 Homework Assignment: 8.6 1 through 7, odd Module 3 test - proctored</p>

<p>Week 10 10/24 - 10/30</p>	<p>Module 4 - Objective 1, 2 and 3 Reading Assignment: Read Section 9.1, 9.2 and 9.3 Homework Assignments: 9.1 1 through 69, odd 9.2 1 through 47, odd, 55 9.3 1 through 77, every other odd</p>
<p>Week 11 10/31 - 11/6</p>	<p>November 1 - Writing Assignment 5 on the Metrics Letter due Module 4 - Objectives 4 and 5 Reading Assignment: Read Section 10.1, 10.2 Homework Assignments: 10.1 1 through 33, odd, 32 10.2 1 through 35, odd, 40, 44, 47</p>
<p>Week 12 11/7 - 11/14</p>	<p>11/11 - Veteran's Day Holiday - Campus Closed November 8 - Module 4 - Objectives 6, 7, 8 Reading Assignments: Read Sections 10.3, 10.4, 10.5 Homework Assignments: 10.3 1 through 43, odd, 53, 54 10.4 1 through 39, odd, 50 10.5 1 through 35, odd, 36</p>
<p>Week 13 11/15 - 11/21</p>	<p>November 15 - Writing Assignment 6 on the Jacuzzi Problem due Module 4 Review Quiz posted Module 4 Test - proctored Module 5 - Objective 1 Reading Assignment: Read Section 11.1 Homework Assignment: 11.1 1 through 21, odd</p>
<p>Week 14 11/22 - 11/30</p>	<p>11/23 and 24 - Thanksgiving Holiday - Campus Closed November 27 Message Board Assignment 4 - post data for the Group Assignment 2 on Rolling a Die November 29 - Final Results due for Group Assignment 2 on Rolling a Die Module 5 - Objective 2, 3, 4 Reading Assignments: Read Sections 11.2, 11.3, 11.4 Homework Assignments: 11.2 1 through 53, every other odd, 55, 67 11.3 1 through 39, odd, 45 11.4 1 through 61, every other odd</p>

Week 15 12/1 - 12/7	Module 5 - Objectives 5, and 6 Reading Assignments: Read Sections 11.5, 11.6, 11.7 Homework Assignments: 11.5 1 through 17, odd, 22, 23 11.6 1 through 69, every other odd 11.7 1 through 69, every other odd Review Quiz Posted Module 5 test proctored
Week 16 12/8 - 12/14	Final Review Final Exam