

MAYLAND COMMUNITY COLLEGE
Welcomes You To:

Mat 101.95 Applied Mathematics
3 Credit hours – 4 contact hours
Spring 2006

Course Description:

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study.

Pre-requisites: Mat 060

Co-requisites: None

Instructor Information:

Instructor: Paula Schlesinger
Office Location: Room 258
Telephone Number: 828-765-7351, ext 265
E-mail Address: pschlesinger@mayland.edu
Office Hours: MWF 1 – 2:50 in P37

Course Information:

Meeting days and time: TBA
Required Text(s): Ewen, Dale. Elementary Technical Mathematics 8th Edition.
Pacific Grove, CA: Brooks/Cole, 2003.
Required supplies: Scientific calculator

Course Objectives/Competencies

1. Review of Operations with Whole Numbers.
Review of Basic Operations. Order of Operations. Area and Volume. Formulas. Prime Factorization. Review of Operations with Fractions. Introduction to Fractions. Addition and Subtraction of Fractions. Multiplication and Division of Fractions. The English System of Weights and Measures. Review of Operations with Decimal Fractions and Percent. Addition and Subtraction of Decimal Fractions. Rounding Numbers. Multiplication and Division of Decimal Fractions. Percent. Part, Base, and Rate. Powers and Roots. Signed Numbers and Powers of 10. Addition of Signed Numbers. Subtraction of Signed Numbers. Multiplication and Division of Signed Numbers. Signed Fractions. Powers of 10. Scientific Notation.

2. The Metric System.
Introduction to the Metric System. Length. Mass and Weight. Volume and Area. Time, Current, and Other Units. Temperature. Metric and English Conversion.

3. Measurement
Approximate Numbers and Accuracy. Precision and Greatest Possible Error. The Vernier Caliper. The Micrometer Caliper. Addition and Subtraction of Measurements. Multiplication and Division of Measurements. Relative Error and Percent of Error . Color Code of Electrical Resistors. Reading Scales.
4. Equations and Formulas
Equations with Variables in Both Members. Equations with Parentheses. Equations with Fractions. Translating Words into Algebraic Symbols. Applications Involving Equations. Formulas. Substituting Data into Formulas. Reciprocal Formulas Using a Calculator.
5. Geometry
Angles and Polygons. Quadrilaterals. Triangles. Similar Polygons. Circles. Radian Measure. Prisms. Cylinders. Pyramids and Cones. Spheres.

This course directly supports the mission statement and competencies for the General Ed core courses in the Division of Arts and Sciences:

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.

Graduates of all degree programs at Mayland Community College will have completed the general education core. That core encompasses the essential knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society. Upon completion of the general education core, students will be able to demonstrate the following:

1. Effective communication in speaking and listening situations needed for college, personal, and work successes
2. Effective communication in writing and reading situations needed for college, personal, and work successes
3. Logical, critical, and creative thinking to evaluate evidence and reach a conclusion
4. Application of basic computer use skills
5. Application of fundamental math skills
6. Basic awareness of the diversity of various world groups from both historical and contemporary contexts

Attendance Policy/Tardiness/Make-Up Work:

This is a self-paced class. You are expected to complete your work and take tests according to the class outline attached to this syllabus. All tests must be taken in the math lab. You may work on your assignments in the math lab during the times that the instructor is in the lab; so that you can get help as needed. If you are unable to complete homework on time, it is your responsibility to contact the instructor to explain your situation and to make necessary arrangements.

Note: 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.

Grading Criteria/Tests/Projects:

The final grade will be determined as follows:

6 tests @ 100 points each	600 points
Comprehensive final @ 200 points	200 points
Homework	100 points
Total points	900 points

Grading Scale: (as a percentage of total possible points)

A = 92.5 – 100.0

B = 84.5 – 92.4

C = 76.5 – 84.4

D = 70.0 – 76.4

F = 70.0 or below

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, it is not advisable for students to risk bodily harm or property damage to attend. If you must miss a test due to weather or for some other excused reason such as a doctor's appointment or sickness, it is your responsibility to contact the instructor to arrange for an alternate time.

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:

ASSIGNMENTS: All homework is to be kept in a notebook. I have assigned odd numbered exercises so that you can check your answers. When you come to take the tests, you will show your notebook to the instructor, who will check to see that all homework has been completed. The homework should be completed neatly with all work shown and clearly labeled in order to receive credit.

ACADEMIC INTEGRITY: Any one cheating on a test or quiz 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.

Withdrawal Dates:**Spring 2006**

End of Unconditional Withdrawal

Monday, February 13, 2006

End of Conditional Withdrawal

Monday, March 27, 2006

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.

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.

ASSIGNMENTS

Homework is the Odd numbered problems at the end of each section

Date	Section
Jan 9	1.1 -1.2
Jan 11	1.3 – 1.4
Jan 18	1.5 – 1.7
Jan 23	1.8 – 1.10
Jan 25	1.11 – 1.13
Jan 30	1.14 – 1.15
Feb 1	Test 1
Feb 6	2.1, 2.2
Feb 8	2.3, 2.4
Feb 13	2.5, 2.6
Feb 15	Test 2
Feb 20	3.1, 3.2
Feb 22	3.3, 3.4
Feb 27	3.5, 3.6
Mar 1	3.7
Mar 13	Test 3
Mar 15	5.1, 5.2
Mar 20	5.3, 5.4
Mar 22	5.5, 5.6
Mar 27	5.7
Mar 29	Test 4
Apr 3	6.1, 6.2
Apr 5	6.3, 6.4
Apr 10	6.5, 6.6
Apr 12	6.7. 6.8
Apr 17	6.9
Apr 19	Test 5
Apr 24	7.1, 7.2
Apr26	7.3, 7.4
May 1	Test 6
May 3	Final Exam available
May 8	Final Exam available
May 10	Last Day to take final