

MAYLAND COMMUNITY COLLEGE
Welcomes You To:

MAT 102.95 Applied Mathematics II
3 Credit hours – 4 contact hours
Spring 2006

Course Description:

This course introduces the concepts of right triangle trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, and right triangle trigonometry. Upon completion, students should be able to solve applied problems both independently and collaboratively. *This course is intended for diploma programs.*

Pre-requisites: Mat 101 **Co-requisites:** None

Instructor Information:

Instructor: Larry Shook
Office Location: Room P37
Telephone Number: 828-765-7351, ext 229
E-mail Address: lshook@mayland.edu
Office Hours: I maintain an open door policy for office hours and, if I am not in class or in a meeting I am available to you. In particular, please avail yourself of any of my posted office hours. Additional office hours are also available by appointment.

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: Required material for this class is a scientific calculator.

Course Objectives/Competencies

1. Basic Statistics
Representing Data Graphically, Measures of Central Tendency, Measures of Dispersion, Statistical Process Control, Probability
2. Geometry
Angles, Triangles, Similar Polygons, Circles, Radian Measure, Prisms, Cylinders, Pyramids, Cones, and Spheres
3. Right Triangle Trigonometry
Trigonometric Ratios. Using Trigonometric Ratios to Find Angles. Using Trigonometric Ratios to Find Sides. Solving Right Triangles. Applications Involving Trigonometric Ratios.
4. Trigonometry with Any Angle
Solving Oblique Triangles: Law of Sines. Law of Sines: The Ambiguous Case. Solving Oblique Triangles: Law of Cosines.

Mission:

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:

Roll will be taken and you are expected to be in class each time it meets. Coming in late or leaving class early is counted as an absence. You will be allowed one cut without grade penalty. 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. No absence is excused beyond the one allowed cut except for personal religious holidays (see me in advance). Any student with 4 or more absences will be penalized 50 grade points for this class. Missed class time can be made up in the tutoring lab or with an assigned tutor (time must be documented by the tutor). **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:

4 chapter tests @ 100 points each	400 points
Comprehensive final @ 200 points	200 points
Attendance/Homework	<u>100 points</u>
Total points	700 point

Grading Scale:

- A** = 630 - 700
- B** = 560 - 629
- C** = 490 - 559
- D** = 420 - 479
- F** = 419 or below

Academic Standards/Student Expectations/Ethics:

Assignments: All homework will be reviewed each day for the previous class. All homework assignments are due within two classes after the material has been assigned and no later than the test on that material.

Tests: There will be no makeup tests given except in extreme cases, and at my discretion. All work must be shown to receive partial credit on any assignment. Please use only pencil or erasable pen.

Late Work: I will not accept any late work for any reason.

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 will be given a zero for the assignment and referred to the Academic Dean for disciplinary action.

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 August 5, 2006. 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, you must file a drop/add form with the registrar prior to January 13th. 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 13th. From February 14th to March 27th, you can withdraw with a grade of WP or WF, to be determined by the instructor. You may not withdraw from any class after March 27th. 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.

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. 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.

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 days when the weather is uncertain.

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.

Important note: Mayland Community College is now a tobacco free environment. This includes all smoking and smokeless tobacco.

Course Outline/Weekly Topics

	Sections:	Problems
January 12	15.1,15.2,15.3, 15.4	1 – 21, 1 – 19, 1 – 19, 1 – 9
January 19	15.5, 15.6, 15.7	1 – 21, 1 – 25, 1 – 15
January 26	15.8, 15.9, 15.10	1 – 35, 1 – 5, 1 – 17
February 2	Test 1	
February 9	12.1, 12.2, 12.3	1 – 35, 1 – 39, 1 – 49
February 16	12.5, 12.6, 12.7	1 – 47, 1 – 31, 1 – 17
February 23	12.8, 12.9, 12.10	1 – 25, 1 – 25, 1 – 15
March 2	Test 2	
March 16	13.1, 13.2, 13.3	1 – 71, 1 – 23, 1 – 23
March 23	13.4, 13.5	1 – 23, 1 – 31
March 30	Test 3	
April 6	14.3, 14.4	1 – 21, 1 – 17
April 20	14.5	1 – 27
April 27	Test 4	
May 4	Review	
May 11	Exam	