# First-Day Handout for Students <br> MATH 1332 College Mathematics 

Spring 2013


TIME REQUIRED: As are most college courses, this course is designed to require about 2 to 3 hours of productive work outside of class for every hour in class. So you should plan to spend about 6-9 hours of productive work on the course outside of class each week. One of my responsibilities is to provide you with enough structure and guidance that you can use those 6-9 hours each week productively.

I hope that you find the particular mix of activities I assign to be helpful. If you want more guidance, or have comments about how you think I should change these, I'd be happy to talk with you in my office, but not in class. (It is helpful to most students to use class time to discuss statistics, not the course policies!) I want to help you learn the material in the course and not waste your time.

You may use the MyMathLab software, with an electronic copy of the text, without cost, for 17 days. See details at http://www.austincc.edu/mthdept2/text/

REQUIRED TEXT/MATERIALS: Using and Understanding Mathematics, $5^{\text {th }}$ edition, Jeffrey O. Bennett and William L. Briggs, Addison-Wesley, ISBN: 9780321652799

Comment: I do not believe the software is useful enough to pay for in this course, so I don't recommend that you purchase this optional package listed below in gray print. It is useful to use the free trial period if you are delayed in obtaining your hard copy of the text, because you can read the text in the electronic form.
OPTIONAL: Shrink-Wrapped Bundle with Text and My Math Lab software access ISBN 9780321708953

- MyMathLab is an optional interactive online course that accompanies the text. To use MyMathLab, you'll need the Course ID, which is parker96445

MyMathLab includes:

- Online access to all pages of the textbook
- Multimedia learning aids (videos \& animations) for select examples and exercises in the text
- Practice tests and quizzes linked to sections of the textbook
- Personalized study guide based on performance on practice tests and quizzes

Visit http:// http://pearsonmylabandmastering.com/ for more information. To use MyMathLab, you'll need:

- Course ID- parker96445
- Student access number: provided with purchase of MyMathLab access.

OPTIONAL TEXT: Student's Study Guide and Solutions Manual

TECHNOLOGY: You will need a scientific or business calculator; it should have an exponent function, called $\wedge$ or $x^{y}$ or $y^{x}$ and log. You will also need access to a spreadsheet to do some homework. Several spreadsheet programs are available, including free software and, of course, you can use spreadsheet software in the computer labs as well.

COURSE DESCRIPTION: MATH 1332 TOPICS IN MATHEMATICS (3-3-0). A course designed for non-mathematics and non-science majors. Topics may include, but are not limited to, sets, logic, number theory, geometric concepts, and an introduction to probability and statistics.

PREREQUISITE: A satisfactory score on the ACC Mathematics Assessment Test. A second option is an appropriate secondary school course (Algebra II) and completion of any TSI-mandated mathematics remediation.

## INSTRUCTIONAL METHODOLOGY

This course is taught in the classroom primarily as a lecture/discussion course.

## COURSE RATIONALE MATH 1332

This course is intended to provide non-mathematics and non-science majors with a survey of topics in mathematics. The emphasis may be towards developing students' quantitative reasoning skills, illustrating the beauty of mathematics as a discipline, and/or imparting a feel for the different ways in which mathematics is used. The students who take this course generally are in nursing, the liberal arts, communication, workforce programs, or some social sciences. This course may be used to satisfy the Core Curriculum and the General Education Mathematics requirements.

## COURSE OBJECTIVES/LEARNING OUTCOMES

Common Course Objectives - 1) Increase/improve your quantitative literacy. 2) Provide you with an opportunity to experience mathematics as an intellectual exercise and a way of thinking. 3) Provide you with an opportunity to appreciate the visual and intellectual beauty of mathematics.

Student Learning Outcomes - Upon successful completion of this course, the student will:

1. Apply arithmetic, algebraic, geometric, critical thinking, and statistical methods to modeling and solving real world situations. The student will demonstrate this by some of the following:
(a) The student will analyze and determine the outcome of an election given preferential voting ballots.
(b) The student will solve equations for unknown variables involving simple and compound interest.
(c) The student will analyze the cost of a loan or annuity.
(d) The student will solve problems using dimensional analysis.
2. Present and evaluate basic mathematical information verbally, numerically, graphically, and symbolically. The student will demonstrate this by some of the following:
(a) The student will apply statistical methods to describe data numerically and present data graphically.
(b) The student will use Venn diagrams to either determine the validity of a logical argument or display relationships between groups.
3. Interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them. The student will demonstrate this by some of the following:
(a) The student will recognize, examine, and interpret a graph model of a routing problem and find the optimal solution using an appropriately chosen algorithm.
(b) The student will recognize, examine, and interpret bar graphs, histograms, pie charts and box
plots.
(c) The student will understand the mathematical difference between causation and correlation.
4. Understand that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines. The student will demonstrate this by some of the following:
(a) The student will apply mathematical techniques discovered within the last 100 years to solve problems of social science and management science.
(b) The student will express in writing their understandings of how mathematics is involved in diverse areas such as art, architecture, music, and nature.
(c) The student will use ideas from probability to understand gambling and risk.

General Education Competencies - Upon completion of the general education component of an associate's degree, students will demonstrate competence in:

- Civic Awareness: Analyzing and critiquing competing perspectives in a democratic society.
- Critical Thinking: Gathering, analyzing, synthesizing, evaluating and applying information.
- Cultural Awareness: Comparing, contrasting, and interpreting differences and commonalities among peoples, ideas, aesthetic traditions, and cultural practices.
- Ethical Reasoning: Identifying and applying ethical principles and practices.
- Interpersonal Skills: Interacting collaboratively to achieve common goals.
- Life/Personal Skills: Demonstrating effective learning, creative thinking, and personal responsibility.
- Quantitative and Empirical Reasoning: Applying mathematical, logical and scientific principles and methods.
- Technology Skills: Using appropriate technology to retrieve, manage, analyze, and present information.
- Written, Oral and Visual Communication: Communicating effectively, adapting to purpose, structure, audience, and medium


## Collaboration:

I encourage you to work with other students, tutors, and all the material available to you on homework, quizzes, and all other non-test activities. The work you turn in should be what YOU understand. Tests must be done strictly on your own.

## Grading:

| Percentage |  |
| ---: | :--- |
| $15 \%$ | Homework / Quizzes |
| $5 \%$ | Attendance / Participation |
| $5 \%$ | Discussion Board |
| $75 \%$ | 5 tests and 1 project. |

A: 90-100;
B: 80-89;
C: 70-79;
D: 60-69;
F: below 60

Tests.
Tests may be given in the Testing Center to be taken outside of class time.
Test 1: 2A, 2B, 4A, 4B, 4C, 4D, 4E
Test 2: 3A, 3B, 3C, 3D, 3E
Test 3: 8A, 8B, 8C, 8D
Test 4: 5 A through 6 B - the parts of these sections that we do by hand
Test 5: 6D, spreadsheet work on these: Ch. 4, Ch. 8, 5C, 5E, 6A, 6B

Tests must be done entirely on your own, with no help from anyone else. Tests must be taken in one sitting - no leaving to go to the restroom or any other reason. If you are unable to take tests in one sitting, please tell the instructor at the beginning of the semester so that she can help you make arrangements for the accommodations you need. It will not be possible to make such accommodations if you wait until time for the test to ask.

Deadlines for the tests in the Testing Center will be enforced very strictly. When the test is in the testing center from Thursday through Wednesday, you are expected to take the test by Monday, and then there are a couple of extra days for you to take it late if you had car trouble or babysitter trouble, or some other difficulty getting in earlier.

Project: Part 1 ( 64 points) Chapter 4. Construct a spreadsheet to advise a person on how to get out of debt. Written instructions for the project will be provided by Jan 28. Due Date: Feb. 18 Part 2 ( 36 points): Sections 1A, 1E, 2C Due date: Mar. 25. Instructions by Feb. 20.

Grading: You are required to take all five tests and do the project. Assuming that you have done that, then, at the end of the semester, your lowest grade from Tests 1-4 will be dropped before averaging grades. Neither the project grade nor the Test 5 grade will be dropped.

Homework/ Quiz: Homework / Quiz assignments will be posted in Blackboard. Homework is due each Wednesday at the beginning of class. Homework may be turned in late either to the clerk in the NRG mailroom or electronically (in one pdf file) in the Assignment in Blackboard. Late homework submitted by the end of the following Monday will have a $25 \%$ penalty, and a further $25 \%$ penalty if it is later. The next Friday after that is the final deadline for homework to be submitted and it will have a $50 \%$ penalty. At the end of the semester, the lowest two homework grades will be dropped and the others averaged.

Attendance / Participation: During each class period, some activity will be assigned and collected and the daily participation grade ( 0 to 4 points) will be assigned from that. At least half of these will be group activities.

Discussion Board: Participate in the Blackboard Discussion Board to ask questions on the reading, the homework exercises, the quiz exercises, and the activities or by answering other student's questions about these. NO discussion of test problems, test rules, test dates, or anything involving tests is allowed on the Discussion Board. (Email those questions instead of posting them.) Sixteen forums will be available, and full credit for this portion of the grade can be earned by participating by both asking a question and answering a question in twelve of them. The Discussion Board is for student interaction mainly and the instructor will not generally participate. However, any student can email the instructor directly and ask for her to specifically answer a question that was asked on the Discussion Board and has been up at least for a day without a satisfactory answer.

## Course-specific support services:

ACC main campuses have Learning Labs which offer free first-come first-serve tutoring in mathematics courses. Not all mathematics tutors tutor for this course. Check the lab schedule to see when tutors for this course are available The locations, contact information, and hours of availability of the Learning Labs are available from http://www.austincc.edu/tutor

## Attendance and withdrawals:

Attendance is required in this course. Students who miss more than $10 \%$ the class time (more than 5 class hours) may be withdrawn. (Regularly missing some part of the beginning or ending
of the class can easily add up to enough time to violate the attendance rule and be withdrawn.) The final withdrawal date for Spring 2013 is Monday, April 22, 2013.

## Reinstatement Policy:

In order to be reinstated, the student must demonstrate that he is caught up with the required work as of the date on which he wishes to be reinstated. This must be done before the official last date to withdraw for the semester.

## General Policies and Information for ACC Students

Attendance/Class Participation: Regular and punctual class and laboratory attendance is expected of all students. If attendance or compliance with other course policies is unsatisfactory, the instructor may withdraw students from the class.

Withdrawal Policy: It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she decide to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary. If a student decides to withdraw, he or she should also verify that the withdrawal is submitted before the Final Withdrawal Date. The student is also strongly encouraged to retain their copy of the withdrawal form for their records.

Students who enroll for the third or subsequent time in a course taken since Fall 2002 may be charged a higher tuition rate, for that course. State law permits students to withdraw from no more than six courses during their entire undergraduate career at Texas public colleges or universities. With certain exceptions, all course withdrawals automatically count towards this limit. Details regarding this policy can be found in the ACC college catalog.

Incomplete Grade Policy: "Incomplete grades (I) will be given only in very rare circumstances. Generally, to receive a grade of "I", a student must have taken all examinations, be passing, and after the last date to withdraw, have a personal tragedy occur which prevents course completion. An incomplete grade cannot be carried beyond the established date in the following semester. The completion date is determined by the instructor but may not be later than the final deadline for withdrawal in the subsequent semester.

Statement on Scholastic Dishonesty: A student attending ACC assumes responsibility for conduct compatible with the mission of the college as an educational institution. Students have the responsibility to submit coursework that is the result of their own thought, research, or self-expression. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, collusion, and falsifying documents. Penalties for scholastic dishonesty will depend upon the nature of the violation and may range from lowering a grade on one assignment to an " $F$ " in the course and/or expulsion from the college. See the Student Standards of Conduct and Disciplinary Process and other policies at http://www.austincc.edu/current/needtoknow

Student Rights and Responsibilities: Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on
the part of the student. As willing partners in learning, students must comply with college rules and procedures.

Statement on Students with Disabilities: Each ACC campus offers support services for students with documented disabilities. Students with disabilities who need classroom, academic or other accommodations must request them through the Office for Students with Disabilities (OSD). Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester, otherwise the provision of accommodations may be delayed.

Students who have received approval for accommodations from OSD for this course must provide the instructor with the 'Notice of Approved Accommodations' from OSD before accommodations will be provided. Arrangements for academic accommodations can only be made after the instructor receives the 'Notice of Approved Accommodations’ from the student.

Students with approved accommodations are encouraged to submit the 'Notice of Approved Accommodations' to the instructor at the beginning of the semester because a reasonable amount of time may be needed to prepare and arrange for the accommodations. Additional information about the Office for Students with Disabilities is available at http://www.austincc.edu/support/osd/

Safety Statement: Austin Community College is committed to providing a safe and healthy environment for study and work. You are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Additional information on these can be found at http://www.austincc.edu/ehs. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the Emergency Procedures poster and Campus Safety Plan map in each classroom. Additional information about emergency procedures and how to sign up for ACC Emergency Alerts to be notified in the event of a serious emergency can be found at: http://www.austincc.edu/emergency/

Please note, you are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be dismissed from the day's activity, may be withdrawn from the class, and/or barred from attending future activities.

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Use of ACC email: All College e-mail communication to students will be sent solely to the student's ACCmail account, with the expectation that such communications will be read in a timely fashion. ACC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their ACCmail account when communicating with instructors and staff. Instructions for activating an ACCmail account can be found at http://www.austincc.edu/accmail/index.php

Testing Center Policy: Under certain circumstances, an instructor may have students take an examination in a testing center. Students using the Academic Testing Center must govern themselves according to the Student Guide for Use of ACC Testing Centers and should read the entire guide before going to take the exam. To request an exam, one must have:

1. ACC Photo ID (info at http://www.austincc.edu/support/admissions/student id.php)
2. Course Abbreviation (e.g., ENGL)
3. Course Number (e.g., 1301)
4. Course Synonym (e.g., 10123)
5. Course Section (e.g., 005)
6. Instructor's Name

Do NOT bring cell phones to the Testing Center. Having your cell phone in the testing room, regardless of whether it is on or off, will revoke your testing privileges for the remainder of the semester. ACC Testing Center policies can be found at http://www.austincc.edu/testctr/

Student and Instructional Services: ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at http://www.austincc.edu/s4/

Links to many student services and other information can be found at http://www.austincc.edu/current/
ACC Learning Labs provide free tutoring services to all ACC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: http://www.autincc.edu/tutor/students/tutoring.php

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab: http://www.austincc.edu/tutor/locations.php

Tentative Schedule for MW class Any changed dates will be announced in Blackboard.

| Week | dates | Sections |
| :---: | :---: | :---: |
| 1 | Jan 14-20 | 2A, 2B |
| 2 | Jan 21-27 | Spreadsheets, 4A |
| 3 | Jan 28 - Feb 3 | 4B, 4C |
| 4 | Feb 4-10 | 4D, 4E, Test 1 |
| 5 | Feb 11-17 | Spreadsheet work |
| 6 | Feb 18-24 | 3A, 3B |
| 7 | Feb 25 - Mar 3 | 3C, 3D |
| 8 | Mar 4-10 | 3E, Test 2 |
|  | Mar 11-17 | Spring Break |
| 9 | Mar 18-24 | 8A, 8B, |
| 10 | Mar 25-31 | 8C, 8D |
| 11 | Apr 1-7 | Test 3, 5A, 5B |
| 12 | Apr 8-14 | 5C, 5D, 5E |
| 13 | Apr 15-21 | 6A, 6B |
| 14 | Apr 22-28 | Test 4, 6C |
| 15 | Apr 29 - May 5 | Spreadsheet work |
| 16 | May 6-10 | Test 5 |

