



Mathematics Distance Education

Math 1332: Mathematics for Liberal Arts
CRN 82439 – Summer 2012

3 hour lecture course / 48 hours per semester/ 7 weeks
Textbook: Thinking Mathematically, Fourth Edition, by Robert Blitzer
ISBN-13: 9780131752047

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Course Description

MATH 1332: Mathematics for Liberal Arts is a course designed for liberal arts, non-mathematics, non-science, and non-business majors. The course provides students with an appreciation of the history, art, and beauty of mathematics in the world around us.

Prerequisites

A grade of C or better in Math 0312 or the equivalent.

Course Goal

The intent of this course is to provide the student certain manipulative skills with limits insofar as they apply to concrete but elementary problems in the social and natural sciences. Mathematical rigor will be kept to a minimum.

Course Student Learning Outcomes (SLO):

1. Analyze information using Sets, Venn Diagrams, Counting Methods, Probabilities and Statistics to make conclusions based on data.
2. Incorporate the mathematics of finance to be consumer-wise.
3. Utilize geometric and trigonometric formulas to solve problems.
4. Apply basic algebraic concepts to linear, quadratic, exponential and logarithmic functions

Learning outcomes

Students will:

- 1.1 Use Venn diagrams to solve application problems.
- 1.2 Identify sets and subsets and perform set operations.
- 1.3 Be familiar with the basic concepts of probability.
- 1.4 Find the probability of an event.
- 1.5 Use tree diagrams to find possible outcomes and use combinations and permutations.
- 1.6 Solve application problems involving probability.
- 1.7 Be familiar with the fundamentals of statistics.
- 1.8 Assess a statistical study.
- 1.9 Find the mean, median, and mode of given sets of raw data.
- 1.10 Interpret statistical tables and graphs.
- 1.11 Identify normal and skewed distribution curves.
- 1.12 Determine variance and standard deviation from a given sample.
- 1.13 Find the margin of error associated with a given sample.
- 2.1 Convert fractions and decimals to percents.
- 2.2 Convert percents to decimals and fractions.
- 2.3 Find simple and compound interest.
- 2.4 Find the future value of a given annuity.
- 2.5 Find the monthly payment and the total interest for a given simple interest amortized loan.
- 3.1 Identify points, lines, planes; read and measure angles.
- 3.2 Identify types of triangles and use the Pythagorean Theorem.
- 3.3 Find perimeter and area of polygons and circles.
- 3.4 Use right triangle trigonometry.
- 4.1 Apply linear and quadratic functions.
- 4.2 Apply exponential and logarithmic functions.

CALENDAR

Week	Topic/ Readings	Assignments & Due Dates
May 14	Orientation Read through Course Materials including the Course Syllabus 2.1 Basic Set Concepts 2.2 Venn Diagrams and Subsets 2.3 Venn Diagrams 2.4 Set Operations and Venn Diagrams	Purchase the textbook Register with MyMathLab Quiz Experience 0: Syllabus Quiz/MyMathLab Orientation Quiz Experience 1 (2.1-2.4)
May 21	8.1 Percent 8.2 Simple Interest 8.3 Compound Interest 8.5 Installment Buying 8.6 The Cost of Home Ownership	Quiz Experience 2 (8.1 - 8.3) Exam 1: (Online) May 25 – 27
May 28	10.1 Points, Lines, Planes, and Angles 10.2 Triangles 10.3 Polygons, Quadrilaterals, and Perimeter 10.4 Area and Circumference 10.6 Right Triangle Trigonometry	Quiz Experience 3 (10.1 - 10.3) Quiz Experience 4 (10.4, 10.6)
June 4	11.1 The Fundamental Counting Principle 11.2 Permutations 11.3 Combinations 11.4 Fundamentals of Probability	Exam 2: (Online) June 8 – 10
June 11	12.1 Sampling, Frequency Distributions, and Graphs 12.2 Measures of Central Tendency 12.3 Measures of Dispersions 12.4 The Normal Distribution	Quiz Experience 5 (12.1 - 12.4)
June 18	7.1 Graphing and Functions 7.2 Linear Functions and Their Graphs	Quiz Experience 6 (7.1 – 7.2)
June 25	7.3 Systems of Linear Equations in Two Variables 7.4 Linear Inequalities in Two Variables	Quiz Experience 7 (7.3 - 7.4)
	Review for the Final Exam	
June 29 – July 1	FINAL EXAM In Person You must present a picture ID.	Bring a Pencil, a picture ID, and your work for the Review for the Final Exam

Student Assignments

Quizzes

Each week students will generally be given a reading assignment and a list of MyMathLab exercises which will help you to succeed on the assigned quizzes and exams. Of the quizzes (there are 7), the two lowest quiz grades will be dropped. All quizzes are found within the MyMathLab program. Your work for each quiz must be turned in before you will receive credit for the quiz. You may try each quiz up to two times with the highest grade being recorded.

Exams

Three exams are given during the semester as shown below:

- **Exam 1: May 25 – 27 (100 points)**
- **Exam 2: June 8 – 10 (100 points)**
- **Final Exam: June 29 – July 1 (200 points)**

It is the responsibility of each student to be prepared for each exam.

The midterm exams are each worth 100 points (10%) of the course grade. A Review for each exam is posted within our MyMathLab course. Any student who earns a score of at least 80% on the online review will earn up to five points which will be added onto their exam score.

Final Exam

The final exam is a 30-item comprehensive exam. Each student is required to bring a pencil, a calculator, and their student ID to the final exam.

Assessments

Your final grade in MATH 1332 is determined by the following point breakdown:

Grade Component	Points	Percentage
Quizzes (5)	250	25%
Homework (25)	250	25%
Midterm Exam(2)	200	20%
Final Exam	300	30%
Total Points	1000	100%

HCC Policy Statement - ADA

Services to Students with Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at his or her respective college at the beginning of each semester. Faculty members are authorized to provide only the accommodations requested by the Disability Support Services Office. Persons needing accommodations due to a documented disability should contact the ADA counselor for their college as soon as possible. For questions, please contact Donna Price at 713.718.5165. To visit the ADA Web site, please visit www.hccs.edu then click Future students, scroll down the page and click on the words Disability Information.

HCC Policy Statement: Academic Honesty

A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has

teaching, grading, and enforcement roles. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Cheating on a test includes:

- Copying from another students' test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test not yet administered;
- Bribing another person to obtain a test that is to be administered.

Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion mean the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

HCC Policy Statements

Class Attendance - It is important that you come to class! Attending class regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Simply put, going to class greatly increases your ability to succeed. You are expected to be on time at the beginning of each class period. For complete information regarding Houston Community College's policies on attendance, please refer to the Student Handbook. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.

If you are not attending class, you are not learning the information. As the information that is discussed in class is important for your career, **students may be dropped from a course after accumulating absences in excess of six (6) hours of instruction.** The six hours of class time would include any total classes missed or for excessive tardiness or leaving class early.

You may decide NOT to come to class for whatever reason. As an adult making the decision not to attend, you do not have to notify the instructor prior to missing a class. However, if this happens too many times, you may suddenly find that you have "lost" the class.

Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, you are responsible for all material missed. It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in your work if you unavoidably miss a class

HCC Course Withdrawal Policy

If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of withdrawal. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

If you plan on withdrawing from your class, you **MUST** contact a HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done **PRIOR** to the withdrawal deadline to receive a "W" on your transcript. ****Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal**

deadlines. **Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline.** If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

Repeat Course Fee

The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

Use of Camera and/or Recording Devices

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations

Personal Communication Device Policy:

All personal communication devices (any device with communication capabilities including but not limited to cell phones, blackberries, pagers, cameras, palmtop computers, lap tops, PDA's, radios, headsets, portable fax machines, recorders, organizers, databanks, and electronic dictionaries or translators) must be muted or turned off during class. Such activity during class time is deemed to be disruptive to the academic process. Personal communication devices are to not be on the student desk during examinations. Usage of such devices during exams is expressly prohibited during examinations and will be considered cheating (see academic honesty section above).

Student Course Reinstatement Policy:

Students have a responsibility to arrange payment for their classes when they register, either through cash, credit card, financial aid, or the installment plan. Faculty members have a responsibility to check their class rolls regularly, especially during the early weeks of a term, and reconcile the official class roll to ensure that no one is attending class whose name does not appear on it. Students who are dropped from their courses for nonpayment of tuition and fees who request reinstatement after the official date of record (OE Date) can be reinstated by making payment in full and paying an additional \$75 per course reinstatement fee. A student requesting reinstatement should present the registrar with a completed **Enrollment Authorization Form** with the signature of the instructor, department chair, or dean who should verify that the student has been attending class regularly. Students who are reinstated are responsible for all course policies and procedures, including attendance requirements.

Resources:

Free tutoring is available at each college campus and online. Additional help is also available through Student Support Services. Students can get free assistance, 24 hours a day, 7 days a week, in Math, English and other subjects, at www.hccs.askonline.net. Typically, posted questions are answered by an HCC tutor or faculty within 24 hours (usually under 6 hours). There are also several online math resources that you can find with an internet search. You may also find information on the Learning Web site accessible through your specific HCCS campus website.