HCC | HOUSTON COMMUNITY COLLEGE

**Division of Mathematics
Mathematics Department**
https://learning.hccs.edu/programs/mathematics

Math 1332: Contemporary Mathematics | Lectur | 13077
FALL SS 2021 | 12 Weeks
(WW) ONLINE Anytime|DE
3 Credit Hours | 48 hours per semester

Instructor Contact Information

Instructor:	Charles Gabi	Office Phone:	713-718-2435
Office:	NL 321/ Virtual	Office Hours:	T-R 10-12: a.m.
			M, W 8-9am
HCC Email: charles.gabi@hccs.edu		Office Location:	Northline/ By Appointment

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear the concerns and just to discuss course topics.

HCC is offering students **FOUR** ways to learn during the Spring 2021 Semester. Descriptions of each type of courses can be found at: https://www.hccs.edu/campaigns/college-your-way/

Online Anytime (WW)
The course modality of this class is *online Anytime*.
Faculty will instruct this class as a traditional online course utilizing Canvas Eagle Online. Attendance will be taken through completion of online assignments.

Instructor's Preferred Method of Contact
charles.gabi@hccs.edu
I will respond to emails within 48 hours Monday through Friday; I will reply to weekend messages on Monday mornings, except during an exam week or cases of extreme emergency. Please always use **"Math 1332-13077 Online"** in your subject line.
Learning Web: http://learning.hccs.edu/faculty/Charles.Gabi
You will find your syllabus and other resources on your class page.

What's Exciting About This Course

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. So, while some of the material is the arithmetic and algebra that you would expect to see in a typical math course, we will also be spending a large part of the semester looking at some very practical applications including set theory, logic, finance, probability and statistics. Also, because this is one of our co-requisite developmental courses, you may be taking this right alongside a college-level course and getting the additional time and support to help you succeed in your college-level course all in one semester.

My Personal Welcome

Welcome to Math 1332. Feel free to contact me if you have any questions.

Prerequisites and/or Co-Requisites

Co-Requisites: MATH 0332 is a co-requisite to MATH 1332. Since MATH 0332 is co-requisite with MATH 1332, withdrawing from either MATH 0332 or Math 1332 will necessitate withdrawal from the other as well. Please carefully read and consider the repeater policy in the HCCS Student Handbook.

Canvas Learning Management System

This section of MATH 1332 will use Canvas (https://eagleonline.hccs.edu/login/ldap) to supplement in-class assignments, exams, and activities. You can view your grades in canvas.
HCCS Open Lab locations may be used to access the Internet and Canvas. **USE FIREFOX OR CHROME AS THE INTERNET BROWSER**.

Instructional Materials
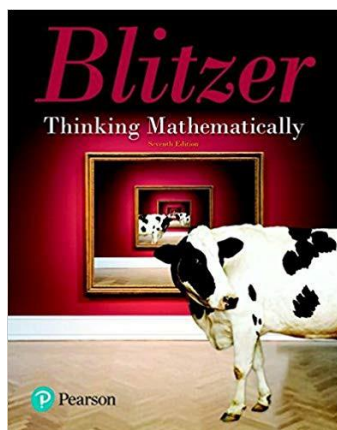
The textbook listed below is *required* for this course.
Thinking Mathematically, 7th ed By Robert Blitzer, Pearson, 2016 ISBN-13: 978-0135323038

It is included in a package that contains the text as well as an access code and are found at the HCC Bookstore. You may either use a hard copy of the book or the e-book through MyLab.

Temporary Free Access to E-Book

For temporary free access to MyLab and the online eBook, access through the MyLab link in Canvas.

Other Instructional Resources

Tutoring
HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the HCC Tutoring Services website for services provided.

Libraries
The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at http://library.hccs.edu.

Supplementary Instruction
Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at http://www.hccs.edu/resources-for/current-students/supplemental-instruction/.

Course Overview

This course is designed as a review of advanced topics in algebra for science and engineering students who plan to take the calculus sequence in preparation for their various degree programs. It is also intended for non-technical students who need college mathematics credits to fulfill requirements for graduation and prerequisites for other courses. It is generally transferable as math credit for non-science majors to other disciplines.

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 0309 or meet TSI college-readiness standard for college-level mathematics.

Co-requisite: MATH 0332 is a co-requisite to MATH 1332. Since MATH 0309 is co-requisite with MATH 1332, withdrawing from MATH 0332 will necessitate withdrawal from MATH 1332 as well.

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.

Core Curriculum Objectives (CCOs)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

- *Critical Thinking*: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- *Communication Skills*: to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- *Quantitative and Empirical Literacy*: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Program Student Learning Outcomes (PSLOs)

Students in the Mathematics Program will:
1. Engage in problem solving strategies, such as organizing information, drawing diagrams and modeling.

2. Use symbolic representations to solve problems. This includes manipulating formulas, solving equations, and graphing lines.
3. Build the foundational mathematical skills that will enable a student to successfully complete a college level mathematics course.

Course Student Learning Outcomes (CSLOs)

Upon completion of MATH 1332, the student will be able to:
1. Apply the language and notation of sets.
2. Use the tools of logic to determine the validity of an argument or statement.
3. Solve problems in mathematics of finance.
4. Demonstrate fundamental probability techniques and apply those techniques to solve problems.
5. Interpret and analyze various representations of data.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

Learning Objectives

Upon completion of MATH 1332, the student will be able to:
1. Use Venn diagrams to solve application problems.
2. Identify sets and subsets and perform set operations.

3. Be familiar with the basic concepts of probability.
4. Express statements using symbols.
5. Form the negation of a statement.
6. Express compound statements symbolically.
7. Construct truth tables.
8. Determine truth value of compound statements.
9. Use truth tables to show that statements are equivalent.
10. Use truth tables to determine validity of arguments.
11. Convert fractions and decimals to percents.
12. Convert percents to decimals and fractions.
13. Find simple and compound interest.
14. Find the future value of a given annuity.
15. Find the monthly payment and the total interest for a given simple interest amortized loan.
16. Find the probability of an event.
17. Use tree diagrams to find possible outcomes and use combinations and permutations.
18. Solve application problems involving probability.
19. Be familiar with the fundamentals of statistics.
20. Assess a statistical study.
21. Find the mean, median, and mode of given sets of raw data.
22. Interpret statistical tables and graphs.
23. Identify normal and skewed distribution curves.
24. Determine variance and standard deviation from a given sample.
25. Find the margin of error associated with a given sample.
26. Apply linear and quadratic functions.
27. Apply exponential and logarithmic functions.

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments

- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to**:**
- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the HCCS Student Handbook

Assignments, Exams, and Activities

Exams

There are three major exams and a comprehensive final exam. Each major exam will count 15%and the final exam will count 25%. **All exams are in CANVAS Online and will be administered using a Lockdown Browser with a camera.**

You will also have chapter quizzes for each chapter which will count for 15% of your total grade. You must log in to Canvas Online daily for updates and announcements.

Homework

 Homework will be online using MYLAB which you will access through Canvas and will not need a course ID. **Homework is required and you must score at least an 80 % on all corresponding homework before taking an exam. That is, each section must be completed with an 80% minimum. Corresponding homework must be completed the night before the Test by 7 pm.** You will be able to access your **MyLab** homework through your Canvas course.

For each section, there are two assignments: media homework and regular homework. You are supposed to do the media homework first (includes videos, power point slides, and section text) and then go to do your regular homework. Both of them count toward your homework average.

DON'T PUT OFF THE MYMATHLAB ASSIGNMENTS!
Work on them soon after they are assigned, while the material is fresh in your mind! Your MyLab average can have a major impact on your overall grade!

Final Exam

The final Exam is a required, comprehensive online exam. If you fail to take the Final you will receive an F for the course. An I will not be given for missing the Final Exam.

Final Exam Review Sessions: HCC MATH DAYS

The Math Department will offer several Final Exam Review sessions (i.e., **HCC Math Days**) for this course near the end of the semester (Fall and Spring semesters only). We encourage you to attend at least one of these sessions as you prepare for the comprehensive Final Exam. Your professor will provide you with more information regarding HCC Math Days locations and session times later in this semester.

While the full-time Math Department faculty leading these review sessions are prepared to answer students' questions on a variety of course topics, the **Final Exam Study Guide** will provide the basis for the HCC Math Days sessions. Therefore, to get the most out of these review sessions, be sure review and to work through the **Final Exam Study Guide** before you attend the review session(s). Please ask your professor if you have any questions regarding these sessions. Finally, the Math 1332 **Final Exam Study Guide** and the **dates** for the Math Days review sessions are located at:
https://cofinite.com/MathDays/Math1332.php

Grading Formula

Homework is required and you must score at least an 80 % on all corresponding homework before taking an exam. That is, each section must be completed with an 80% minimum. Corresponding homework must be completed the night before the Test by 7 pm.

Assessments
Your final grade for the course will be evaluated according to the following ratio:
1. Three Examinations .... 15% each
 2. Activities/Add H.W.................................15%
 3. Homework... 15%
 4.Comprehensive Final examination .... 25%.

Grades

Grades are given as follows. D grades do not typically transfer to universities and will not be changed to either C or W. An "I" grade indicates an Incomplete.

Course Average	Course Grade
90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
0 – 59%	F

Incomplete Policy:
In order to receive a grade of Incomplete ("I"), a student must have completed at least 85% of the work in the course. In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

HCC Grading Scale can be found on this site under Academic Information:

Course Calendar/Tentative

Week	Topic/What's due
1	2.1 Basic Set Concepts 2.2 Subsets
1	2.3 Venn Diagrams and Set Operations 2.4 Set Operations and Venn Diagrams with Three Sets
2	3.1 Statements, Negations, and Quantified Statements 3.2 Compound Statements and Connectives 3.3 Truth Tables for Negation, Conjunction, and Disjunction
2/3	3.4 Truth Tables for the Conditional and the Biconditional (Omit Biconditional) 3.5 Equivalent Statements and Variations of Conditional Statements (Omit Variation Forms)
3	3.7 Arguments and Truth Tables (Focus on truth tables and diagrams to determine validity.) Exam 1 **(10/8/21 to 10/9/21)**
4	8.1 Percent, Sales Tax, and Discounts 8.2 Income Tax 8.3 Simple Interest
5	8.3 Simple Interest 8.4 Compound Interest
6	8.5 Annuities, Methods of Saving and Investments
7	8.6 Cars 8.7 The Cost of Home Ownership
7	Review Exam 2 (**11/5/21 to 11/6/21**)
8	11.1 The Fundamental Counting Principle 11.2 Permutations
9	11.3 Combinations 11.4 Fundamentals of Probability
10	12.1 Sampling, Frequency Distributions, and Graphs 12.2 Measures of Central Tendency
11	12.3 Measures of Dispersions 12.4 The Normal Distribution
12	Exam 3 Review for Final (**12/7/21 to 12/8/21**)
12	Final Exam (**12//9/21 to 12/10/21]**

Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

Instructor's Practices and Procedures

Missed Assignments

NOTE: There should be no missed assignments given our flexible testing environment. **It is the responsibility of the student to get with the instructor concerning any missed assignments**.

Academic Integrity

All forms of academic dishonesty including, but not limited to cheating, plagiarism, and collusion are serious offenses. Possible consequences for academic dishonesty include a grade a 0 or F in the particular assignment, failure in the course, and/or recommendations for probation or dismissal from the institution.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance): http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/

Attendance Procedures

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. **You are expected to log into homework or Canvas daily.**
The last day to withdraw November 8, 2021.

Student Conduct

Be respectful and considerate of others all the time.

Calculator Policy
You are allowed the use of a graphing calculator in class and during quizzes and exams.

Cell Phone Policy
 All cell phones must be muted or turned off during class. Cell phone activity during class time is deemed to be disruptive to the academic process. Cell phones are not to be on student desks nor on students' laps during class time. Cell phone usage, of any kind, is expressly prohibited during class. Text messaging is strictly prohibited during class time. Students who violate this cell phone policy will be told to leave class for the day and marked absent for the remainder of the class period.

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).

Mathematics Program Information

- HCC Math Student Organizations: Mu Alpha Theta: Application: https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/stem-clubs/mu-alpha-theta-application/

HCC Policies

Here's the link to the HCC Student Handbook http://www.hccs.edu/resources-for/current-students/student-handbook/   In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)

- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

EGLS³

The EGLS³ (Evaluation for Greater Learning Student Survey System) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. EGLS3 surveys are not offered during the Summer semester due to logistical constraints.
http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link

Here's the link to the HCC information about Campus Carry:
http://www.hccs.edu/departments/police/campus-carry/

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID and activate it now. You may also use Canvas Inbox to communicate.

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (http://www.hccs.edu/departments/institutional-equity/)

disAbility Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term

conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/support-services/disability-services/

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross
Director EEO/Compliance
Office of
Institutional
Equity &
Diversity 3100
Main
(713) 718-8271
Houston, TX 77266-7517 or
Institutional.Equity@hccs.edu
http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-

policies--procedures/student- complaints/speak-with-the-dean-of-
students/

Department Chair Contact Information
College - Level Math Courses

Chair of Math	Mahmoud Basharat	SW Campus	713-718-2438	Stafford, Scarcella, N108
- Admin. Assistant	Tiffany Pham	SW Campus	713-718-7770	Stafford, Scarcella, N108
- Admin. Assistant	Christopher Cochran	SW Campus	713-718-2477	Stafford, Scarcella, N108
Math Assoc. Chair	Jaime Hernandez	CE Campus	713-718-7772	San Jacinto Building, Rm 369
Math Assoc. Chair	Hien Nguyen	NE Campus	713-718-2440	Northline Rm 324
Math Assoc. Chair	Susan Fife	NW Campus	713-718-7241	Katy Campus Building, Rm 112

Developmental Math Courses

Chair of Dev. Math	Dorothy Muhammad	SE Campus	713-718-5846	Felix Morales Building, Rm 124
- Admin. Assistant	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Jack Hatton	SE Campus	713-718-2440	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Adnan Ulhaque	SW Campus	713-718-5463	Stafford, Learning Hub, Room 208

For issues related to your class, please first contact your instructor.
If you need to contact departmental administration, then contact the
appropriate Associate Chair.
If further administrative contact is necessary, then contact the appropriate
Department Chair.