Math 1332: Contemporary Mathematics | Lecture | CRN#16582
Spring 2020 | 4 Weeks (Dec 16, 2019-Jan 13, 2020) Mini
Online | HCCS Online College.
3 Credit Hours | 48 hours per semester

Instructor Contact Information

Instructor: Mahmoud Basharat
Office: Northeast/ Codwell Hall
Office Phone: 713-718-2438
Office Hours: M & W 2:30-4:00 p.m. By Appointment Only.
Online Hours: T & Th 4:30 pm – 6:00 pm
Office Location: Codwell Building rm # 105
HCC Email: mahmoud.basharat@hccs.edu

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. Please email me for an appointment.

Instructor’s Preferred Method of Contact

You must use your HCCS email NOT your personal email for communications.
Office hours On Monday & Wednesday: Northeast/ Codwell Building rm # 105; online hours: Tu& Th 4:00 pm - 5:30 pm, also by appointment, Office Phone: 713-718-2438, (Please leave a message)
➢ I will return your email, or call within 24 hours, Monday through Saturday; I will reply to weekend messages on Monday morning.

My Personal Welcome

Welcome to MATH 1332—I’m delighted that you have chosen this course! I will present the information in the most exciting way I know, so that you can grasp the concepts and apply them now and hopefully throughout your life.
I am here to support you. The fastest way to reach me is by my HCC email. The best way to really discuss issues is in person and I’m available during posted office hours and by appointment to address your questions and concerns. My goal is for you to walk out of the course with a better understanding of course materials that will help through your endeavors. So, please visit me or contact me by email whenever you have a question.
Prerequisites and/or Co-Requisites

Prerequisites: A grade of C or better in Math 0309 or its equivalent or an acceptable placement score. A grade of C or better in Math 0310 or Math 0314 its equivalent or an acceptable placement score.

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 online section of MATH 1332 will use Canvas (https://eagleonline.hccs.edu) to deliver class notes, quizzes, assignments, exams, and activities. HCCS Open Lab locations may be used to access the Internet and Canvas. Please USE FIREFOX OR CHROME AS THE INTERNET BROWSER.

Important Links:
- Eagle Online- CANVAS (Course Home Page)
  https://hccs.instructure.com/login/ldap
- For technical support with Eagle Online please visit http://www.hccs.edu/online/technical-support/ or by phone (713) 718-2000
  Phone support: 713-718-2000, options 4, 2, 3 (available 24 x 7)
- MyMathLab (Where you will find the Quizzes and HW assignments)
  https://www.pearsonmylabandmastering.com/northamerica/mymathlab/
  Phone support: 1888-695-6577
- Students Services: http://www.hccs.edu/online/student-services/
- Please visit the DE website http://de.hccs.edu/student-services/ for students services.
- Student Handbook: http://www.hccs.edu/district/students/
- Tutoring services, please visit: http://www.hccs.edu/district/students/tutoring/

Browser troubles? Use the latest version of Firefox, or Google Chrome.

HCC Online Information and Policies

Here is the link to information about HCC Online classes including the required Online Orientation for all fully online classes: http://www.hccs.edu/online/

Scoring Rubrics, Sample Assignments, etc.

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. https://eagleonline.hccs.edu/login/ldap

Instructional Materials

1. MyMathLab Access Code: You must purchase the access code for MyMathLab. With MML, you will have access to an electronic version of the textbook.

MyMathLab is an online homework/quiz system. You may purchase MML access code online. I will provide you with the course ID on the first day of class. The directions on how to create an account for MyMathLab are posted on the course homepage on CANVAS.

MyMathLab: http://www.mymathlab.com/
MyMathLab offers you a free trial period of 10 days to access the homework. Be sure to sign up for MML on the first day of class. Make sure to purchase the access code before the trial period expires.


3. Calculator: a graphing calculator TI-83 plus or TI-84 Plus is highly recommended. A scientific calculator is required, be sure you purchase a calculator that computes the mean ($\bar{x}$ or $\mu$) and standard deviation ($s$ or $\sigma$) of a set of numbers is recommended. It’s the student’s responsibility to learn his/her calculator functionality.

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 0309 is a co-requisite to MATH 1332. Since MATH 0309 is co-requisite with MATH 1332, withdrawing from MATH 0309 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.
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 percent.
12. Convert percent 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.
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

Grading & Evaluation:
Your grade will be determined based upon how many points that you accumulate from quizzes, web activity, homework, and exams. The approximate number of points is as follows:
1. Three major examinations each is a 100 points.
2. A comprehensive final (200 points)

Note: Exam two and the final exam are proctored and must be taken at the testing center. If you are out of town, then you must provide me with the information of the nearest college testing center near you during the first week of class.
The Math Department requires that at least 45% of your course grade will consist of scores from at least two in-person proctored exams in the Testing Center.
3. Homework Assignments and Quizzes 100 points.

Final Exam
All students will be required to take a cumulative proctored Final exam.

Grading Formula
Final average = \{Exam 1 + Exam 2+ Exam 3 + HW Assignments, and Quizzes + Final Exam\} Divided by 6.
The final course average will be used in the usual manner (90-100 “A”; 80-89 “B”; 70-79 “C”; 60-69 “D”; Below 60 “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: http://www.hccs.edu/resources-for/current-students/student-handbook/

**Exams policy:**
**A total of four (4) exams will be given in this course, three major exams will be given during the semester and a comprehensive final exam will be given at the end of the semester.**
- **Exams 1, and 3,** are online and will be available to you on CANVAS or on MyMathLab.
- **Exam two** will be proctored at the testing center; exam two will be on Saturday, Dec. 28th at 3100 Main street- Basement - Starting at 10am- and ending at 4pm; Last admit 1:50pm. Be sure you arrive at the **testing center before 1:45 pm to avoid being turned down!**
- The **Final Exam** will be available to you on CANVAS or on MyMathLab; **but you must take it at HCCS DE testing center or an approved institutional proctored testing center, if you are living outside of the greater Houston area.**

**The final will take place** at Central Campus, San Jacinto Building RM # 335. Finals will be given on Monday, Jan 13 at Central Campus -Room: 335 -Starting 10am- and ending at 9pm; last admit 6:45pm. Be sure you arrive at the **testing center before 6:45 pm to avoid being turned down!**

Exams 1 and 3 will only be accessible for three days period (please see calendar below) and they will be timed. For exams 1 and 3, you will **NOT** have time to look up every answer, therefore, you should study the same as you would for an in class exam with limited use of references and limited time available. These exams will consist of questions from the homework, questions from quizzes, questions from practice tests, and other sources. Each student will have a random selection of questions from the database of questions. Therefore, each student will have a unique exam. **It is against the class policy, and is also an unethical practice, to share the exam questions with any of your classmates or discuss them in any form until AFTER the due dates for each exam. Anyone caught violating this policy will receive a grade of ZERO for that exam.**

- **Testing location and time for the Exam two (proctored)**
  Exam two will be on Saturday, Dec. 28th at 3100 Main Street- Basement - Starting at 10am- and ending at 4pm; Last admit 1:50pm. Be sure you arrive at the **testing center before 1:45 pm to avoid being turned down!**

- **Testing location and time for the Final Exam(proctored)**
  The final will take place at Central Campus, San Jacinto Building RM # 335. Finals will be given on Monday, Jan 13 at Central Campus -Room: 335 -Starting 10am- and ending at 9pm; last admit 6:45pm. Be sure you arrive at the **testing center before 6:45 pm to avoid being turned down!**

If you fail to take the final exam, then you will fail the course with a grade of F. The grade of I for “Incomplete” will not be given if you miss the final exam. Be sure to arrive to the testing center on time. **If you are late 1 minute, then you will NOT be admitted to the testing center.** Please plan to arrive early; it’s better to be safe than sorry!!

**Homework Assignments & Quizzes Policy:**
**This online course-Math 1332 has Mandatory Homework & Quizzes that must be done on MyMathLab and on Canvas by all students.**
The homework can be done from your home computer, in the computers lab on Campus, or the computers in the Open Lab; you can even load it on your tablet or smart phone. Please see the
directions posted on CANVAS on how to register for MyMathLab. **I will provide you with the Class access code on the first day of class.** The homework & Quizzes counts 100 points. This homework is **not optional.** There is a **deadline for completion each exercise set.** Usually they are due on the Exam Dates. Be sure you are aware of these dates; they will affect your homework grade.

**Tentative Calendar:**
The following examinations dates are tentative. **All dates are subject to change.**

| Exam I (Online) | The exam will cover Units 1 and 2 Set Theory and Logic | Dec 20- Dec 22 |
| Exam II (Proctored) | The exam will cover Unit 3 Consumer Mathematics and Finance | Saturday, Dec 28 |
| Exam III (Online) | The exam will cover Units 4 & 5 Counting Methods and Probability. | January 3- Jan 5 |
| Final Exam (Proctored) | The final exam is comprehensive | Monday, January 13 |

Also; the specific dates for the exams are posted on the course home page on **Eagle Online (CANVAS)**

The last day for student withdrawals from the course is **Thursday, January 2, 2020.**

**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**

**Make-up policy:**
There are **no make-up exams given for any exam under ANY circumstance.** If you miss one exam, then the final exam grade will count for that missed exam. **If you miss a second exam, you will get a ZERO.** Set your own personal calendars and electronic devices in advance to remind you of those dates. Again: the homework assignments will be on MyMathLab. **The loss of power, computer functionality or internet connection will NOT constitute an excuse for missing or not completing an exam. Technical access and compliance is strictly the student’s responsibility.** Remember: this is a distance education course. It is your responsibility to keep up with the course pace, instructions, policies, due dates, and timetable in general, including the assignment deadlines and exam dates. Do NOT procrastinate. Doing so will **NOT** pay off. You will run out of time. Please keep up with the course calendar on CANVAS.

- It is important that your name on all your work for this class matches HCCS records. I will not change any grade if you use different name!

**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**

**Class Attendance** - *It is important that you participate in class!* Doing the HW assignments and keeping up with the assignments regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success in Mathematics is doing the HW assignments and practicing regularly. 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 based on your class participation in doing the HW assignments, online activities, quizzes, and exams. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. You may decide NOT to participate on the online class for whatever reason. As an adult making the decision not to keep up with your class work, if this happens too many times, you may suddenly find that you have “lost” the class.

Poor participation in an online class records tend to correlate with poor grades. If **you don't participate and log into CANVAS during the first week of class then you will risk being dropped from the class!**

**It is the student responsibility to withdraw from the class before the withdrawal deadline,** if you do not withdraw before the deadline, you will receive the grade that you have earned by the end of the semester. Zeros averaged in for required assignments/tests not submitted will lower your semester average significantly, most likely resulting in a failing grade (“F”).

The last day for student withdrawals is Thursday, January 2, 2020 by 4:00 pm.

**Students Conduct & Course Policies**

- It is important that we behave as an adult in this course!! I will not tolerate any rudeness or any inappropriate language; so please if there is an issue or a problem let me know and I’ll do my best to resolve the issue.

- You need, constantly on a daily basis, to check the calendar, course work, e-mail and other links on the course homepage on Eagle Online to ensure a successful and timely completion.

- Check the course calendar for events, and examination dates.

- The results of the exam will be communicated to you within a week through Eagle Online. If you have any question over any test grade and you would like to review it, then you **must arrange an appointment with me to discuss your grade.**

- All students must acquire access code to the Course Material i.e. User name and Password. If you have any problem with logging to the course website please contact one of the Distance Education Technicians: desupport@hccs.edu
It is extremely important that you take the exam during the scheduled time!!!!

Communication is the most problematic area in distance education. Remember that we don't see face to face, and so we are not able to read body languages and interact with each other as in a traditional class room.

It is important that you do your homework and practice in this course. It is absolutely essential that you do as much of the homework as possible, if you don’t do the assigned homework, I can almost guarantee that you will not be successful in this course. I will be glad to answer questions about the homework problems during chat sessions and on the Discussion Forums.

Caution: There is one word that best summarizes the major difficulty that most people have taking a course online: procrastination! You will have great excitement and good intentions in the beginning, but as the course progresses, there will be a tendency to put off it just one more day while you do other urgent tasks. Soon the 'one more day' becomes a week and you are hopelessly behind! I will do my best to help keep you on track, but of the discipline must come from you. It is imperative that you follow the calendar that I will lay out for you if you plan to succeed.

Electronic Devices
The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for the purposes other than student learning is strictly prohibited unless authorized as an appropriate ADA accommodation from the ADA Counselor.

Mathematics Program Information


HCC Policies
Here’s the link to the HCC Student Handbook [http://www.hccs.edu/resources-for/current-students/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

**EGLS\(^3\)**
The EGLS\(^3\) (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. EGLS\(^3\) 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/](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:


**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/](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/](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.


**Department Chair Contact Information**

### College - Level Math Courses

<table>
<thead>
<tr>
<th>Chair of Math</th>
<th>Susan Fife</th>
<th>SW Campus</th>
<th>713-718-7241</th>
<th>Stafford, Scarcella, N108</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Admin. Assistant</td>
<td>Tiffany Pham</td>
<td>SW Campus</td>
<td>713-718-7770</td>
<td>Stafford, Scarcella, N108</td>
</tr>
<tr>
<td>- Admin. Assistant</td>
<td>Christopher Cochran</td>
<td>SW Campus</td>
<td>713-718-2477</td>
<td>Stafford, Scarcella, N108</td>
</tr>
<tr>
<td>Math Assoc. Chair</td>
<td>Jaime Hernandez</td>
<td>CE Campus</td>
<td>713-718-7772</td>
<td>San Jacinto Building, Rm 369</td>
</tr>
<tr>
<td>Math Assoc. Chair</td>
<td>Ernest Lowery</td>
<td>NW Campus</td>
<td>713-718-5512</td>
<td>Katy Campus Building, Rm 112</td>
</tr>
<tr>
<td>Math Assoc. Chair</td>
<td>Mahmoud Basharat</td>
<td>NE Campus</td>
<td>713-718-2438</td>
<td>Codwell Hall Rm 105</td>
</tr>
</tbody>
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### Developmental Math Courses

<table>
<thead>
<tr>
<th>Chair of Dev. Math</th>
<th>Jack Hatton</th>
<th>SE Campus</th>
<th>713-718-2434</th>
<th>Felix Morales Building, Rm 124</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Admin. Assistant</td>
<td>Carmen Vasquez</td>
<td>SE Campus</td>
<td>713-718-7056</td>
<td>Felix Morales Building, Rm 124</td>
</tr>
</tbody>
</table>
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.

**Modifications:** Any modifications to this syllabus will be announced on the course website in HCCS Eagle Online (CANVAS). It is your responsibility to check for such announcements.

**Course Outline:**
Instructors may find it preferable to cover the course topics in the order listed below. However, the instructor may choose to organize topics in any order, but all material will be covered.

### APPROXIMATE TIME REFERENCE

**(6 Hours) Unit 1:** Set Theory  
2.1 Basic Set Concepts  
2.2 Subsets  
2.3 Venn Diagrams & Set Operations  
2.4 Set Operations and Venn Diagrams with Three Sets

**(7 Hours) Unit 2:** Logic  
3.1 Statements, Negations, and Quantified Statements  
3.2 Compound Statements and Connectives  
3.3 Truth Tables for Negation, Conjunction, and Disjunction  
3.4 Truth Tables for the Conditional and the Biconditional (Omit Biconditional)  
3.5 Equivalent Statements and Variations of Conditional Statements (Omit Variation Forms)  
3.7 Arguments and Truth Tables (Focus on truth tables and diagrams to determine validity.)

**(9 Hours) Unit 3:** Consumer Mathematics and Financial Management  
8.1 Percent, Sales Tax, and Discounts  
8.2 Income Tax  
8.3 Simple Interest  
8.4 Compound Interest  
8.5 Annuities, Methods of Saving, and Investments  
8.6 Cars  
8.7 The Cost of Home Ownership

**(6 Hours) Unit 4:** Counting Methods and Probability Theory  
11.1 The Fundamental Counting Principle  
11.2 Permutations  
11.3 Combinations  
11.4 Fundamentals of Probability

**(7 Hours) Unit 5:** Statistics  
12.1 Sampling, Frequency Distributions, and Graphs  
12.2 Measures of Central Tendency  
12.3 Measures of Dispersions  
12.4 The Normal Distribution

**(4 Hours) Unit 6:** Functions (Optional)
7.1 Graphing and Functions
7.2 Linear Functions and Their Graphs
7.6 Modeling Data: Exponential, Logarithmic and Quadratic Functions