

Division of Mathematics Mathematics Department

https://learning.hccs.edu/programs/mathematics

Math 1350: Mathematics for Elementary Teachers I | Lecture | #12711

Fall 2021 | 16 Weeks (8.23.2021-12.12.2021)

HCC Online_ **Anytime WW.**3 Credit Hours | 48 hours per semester

Instructor Contact Information

Instructor: Charles Gabi Office Phone: 713-718-2435

Office: Northline, Room 321 Office Hours: M-R 8:00-9:00 am

(Virtual Room) T-Th 10-11:30 am

By Appointment.

HCC Email: charles.gabi@hccs.edu Office Location: Northline Faculty Area/Virtual

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.

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.

Instructor's Preferred Method of Contact

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 1350-12711 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

This course will give a deeper understanding of Elementary School Mathematics topics and how you might present them at an appropriate grade level. You will get to pick a topic of your choice, write a lesson plan with the TEKS and do a video presentation.

My Personal Welcome

Welcome to Math 1350 HCC Online class. Please feel free to contact me and visit with me whenever you need help.

Prerequisites and/or Co-Requisites

Prerequisites: A grade of C or better in Math 1314 or its equivalent. If you have enrolled in this course having satisfied these prerequisites, you have a higher chance of success than students who have not done so. Please carefully read and consider the repeater policy in the HCCS Student Handbook.

Canvas Learning Management System

This section of MATH 1350 will use <u>Canvas</u> (https://eagleonline.hccs.edu to supplement inclass assignments, exams, and activities. **You will be using Canvas for class discussions and presentations.**

HCCS Open Lab locations may be used to access the Internet and Canvas. **USE FIREFOX OR CHROME AS THE INTERNET BROWSER**.

HCC Online Information and Policies

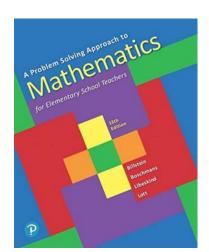
Here is the link to information about HCC Online classes including the required Online Orientation for all fully online classes: http://www.hccs.edu/online/

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

Textbook Information



The textbook listed below is **required** for this course.

A Problem Solving Approach to Mathematics for Elementary Teachers, 13th ed; By Billstein, Libeskind, and Lott, Addison-Wesley, 2020 ISBN-I

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

Temporary Free Access to E-Book

Temporary access to Canvas has a 2-week window, giving you time to update and pay for the service. You will be able to register for MyLab through your CANVAS course.

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 intended for students who are planning to major in Elementary Education. It includes Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking.

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 1350, the student will be able to:

- 1. Explain and model the arithmetic operations for whole numbers and integers.
- 2. Explain and model computations with fractions, decimals, ratios, and percentages.
- 3. Describe and demonstrate how factors, multiples, and prime numbers are used to solve problems.
- 4. Apply problem solving skills to numerical applications.
- 5. Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
- 6. Compare and contrast structures of numeration systems.

Learning Objectives

Upon completion of MATH 1350, the student will be able to:

1. Understand sets, set notation, and set operations.

- 2. Perform the arithmetic of whole numbers, integers, rational numbers, decimals, and real numbers.
- 3. Explain and model the arithmetic operations for whole numbers and integers.
- 4. Explain and model computations with fractions, decimals, ratios, and percentages.
- 5. Convert a repeating decimal to rational form.
- 6. Understand prime numbers and composite numbers.
- 7. Define divisibility and perform divisibility tests.
- 8. Define and compute the least common multiple and the greatest common divisor of two integers.
- 9. Explain various types of number systems.

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 20%. 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 10% of your total grade. You must log in to Canvas Online daily for updates and announcements.

Homework

Homework will be online using MYMATHLAB 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. You will be able to access your MyMathLab 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 MyMathLab 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.

Course Outline:

APPROXIMATE TIME	TEXT REFERENCE			
Chapter 2 – Introduction to Logic and Sets Sections:				
	2-1, 2-2, 2-3			
(6 hours)				
The unit begins with an optional introduction to Logic. It continues with discussions of, bases, sets and set notation, and set operations.				
Chapter 3 – Whole Numbers and Their Operations	(8 hours)			

Sections: 3-1, 3-2, 3-3, 3-4, 3-5

This unit includes numeration systems (Hindu-Arabic, Egyptian, Roman), algorithms for whole number arithmetic and estimation.

Exam 1: chapter 2 and 3

Chapter 4 – **Number Theory** Sections: 4-1, 4-2, 4-3 Chapter 5 – **Integers** Sections: 5-1, 5-2

(8 hours)

These chapters investigate integers and the operations of addition, subtraction, multiplication and division. It includes prime numbers and the Greatest Common Divisor and Least Common Multiple.

Chapter 6 – **Rational Numbers and Proportional Reasoning** Sections: 6-1, 6-2, 6-3, 6-4 (6 hours)

This chapter introduces rational numbers and the arithmetical operations on them. It includes ratios and proportions.

Exam 2: chapter 4, 5 and 6

Chapter 7 – **Decimals: Rational Numbers and Percent** Sections: 7-1, 7-2, 7-3, 7-4 (7 hours)

This chapter introduces decimals as fractions and as an extension of the base-ten system. This unit includes operations on decimals, properties of decimals, and percent.

Chapter 8 – **Real Numbers and Algebraic Thinking** Sections: 8-1, 8-2, 8-3, 8-4

(6 hours)

This chapter introduces real numbers and basic algebraic concepts including an introduction to functions.

Exam 3: chapter 7 and 8

Final Exam is comprehensive and covers chapter 2 through 8.

Tentative Calendar

Tentative Test Schedule:

Test	Chapters Covered on Test	Date
Test #1	Chapter 2 & 3	9/18/21 to 9/19/21 Online Canvas
Test #2	Chapter 4, 5 & Section 6.	10/23/21 –10/24/21 Online Canvas
Test #3	Chapter 7 & 8	12/7/21 to 12/8/21 Online Canvas
Final Exam	Comprehensive 2 thru 8.	12/9/21 to 12/10/21 Online Canvas

Instructional Methods

The instructor will strive to facilitate an effective learning environment through lectures notes, classroom practice activities, discussions, and review sessions.

Student Assignments

All homework must be completed online using **Math_Lab.**. You must have a score of at least 80% on all corresponding homework to take any Test. Homework should be completed the day before the test by 7 pm.

Assessments

Your final grade for the course will be evaluated according to the following ratio:

Your final grade for the course will be evaluated according to the following ratio:

1. Three Examinations1	.5% each
2. Math -Lab Homework 1	15%

3. Lesson Plan Project......10%

4. Quizzes10% 5. Comprehensive Final examination20%.

Extra Credit:

You will earn 5 extra points on a test for participating in corresponding class discussion activities.

Grade	Overall		
	Percentage		
Α	90% +		
В	80%-89%		
С	70%- 79%		
D	60%-69%		
F	<60%		

For distance Ed (Online courses):

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.

Students Outside of HCC Service Area:

Students who live or work outside the HCC service area and cannot take exams at HCC testing locations MUST make arrangements at a proctored testing center in their area to take the final exam. It is a requirement that the final exam for this course be taken at an HCC-approved testing center. For more information and to obtain the required Proctor Approval Form, go to the DE Student Handbook and select "Testing Locations and Procedures" or contact DE department at de@hccs.edu for more information.

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/

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

All exams are required. You have a whole to schedule a convenient time to take each test. There is no reason why you will not be able to take the test unless you're hospitalized. Be reminded that you will need to have completed all corresponding homework with at least an 80% in each section.

Instructor Requirements

o be su	accessful in this class, it is the student's responsibility to complete the following tasks.
	Constantly Check Canvas for updates.
П	Participate in all online discussions.
	Read and study the textbook.
	Complete the Math-Lab homework and required
	assignments. Work the reviews before taking the
Ш	tests.
	Take all the tests.
	Pass the Final Exam and Mid-Term.
	Keep copies of all paperwork, including this syllabus, handouts, and all homework assignments in a 2-inch binder.

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 October 29, 2021.

Student Conduct

Be respectful and considerate of all people always.

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.

Calculator Policy:

Scientific Calculators are allowed during Exams. A Graphing calculator is not allowed.

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/

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.