

Division of College Readiness Developmental Math Department

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

MATH 0324P: Basic Concepts for Business Math Lecture | #23010

Spring 2021 | 2nd Start 12 Weeks (2/16/2021 - 5/16/2021) HCC Online | TuTh 8:00AM - 9:50AM 3 Credit Hours | 48 hours per semester

Instructor Contact Information

Instructor: Osman M. Osman Office Phone:

Office: NA Office Hours: By appointment only

HCC Email: osman.osman@hccs.edu Office Location: HCC Online

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 on a Schedule (WS)

The course modality of this class is online on A Schedule.

Faculty will hold class as per the assigned schedule, and students will attend online each class period utilizing Canvas Eagle Online.

Attendance will be taken each class period.

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 your concerns and just to discuss course topics.

Instructor's Preferred Method of Contact

My preferred method of contact is my school e-mail, osman@hccs.edu; I will respond to emails within 24 hours Monday through Friday; I will reply to weekend messages on Monday mornings.

What's Exciting About This Course

This course has been designed to guide students to the basic skills that are necessary to succeed in a Business Mathematics course. So, while the material is the arithmetic and algebra that you would expect to see in a typical math course, it is arranged to be directly relevant to learning, understanding, and succeeding in Business Math.

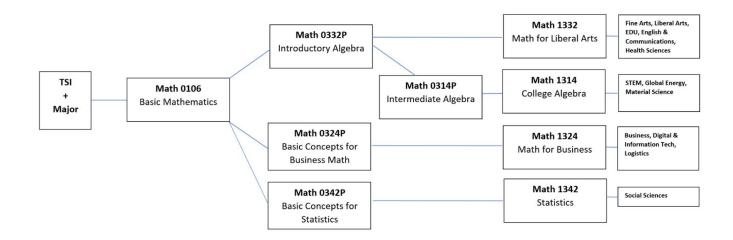
My Personal Welcome

Welcome to Math 0324P course. I am looking forward to a happy and productive semester.

Prerequisites and/or Co-Requisites

Placement by state required entrance exam.

MATH 0324P is a prerequisite to MATH 1324.



Canvas Learning Management System

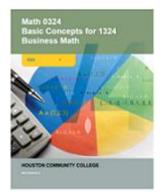
This section of MATH 0324P has associated with it a course in Canvas
(https://eagleonline.hccs.edu) HCCS Open Lab locations may be used to access the Internet and Eagle Online Canvas. It is recommended that you **USE FIREFOX OR CHROME AS YOUR BROWSER**.

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. **Basic Concepts for Business Math** (Custom edition by McGraw Hill Publishing).

ISBN: 978-1-26-40939-39 (textbook and access code) ISBN: 978-1-26-40890-86 (access code with e-book)

Temporary Free Access to E-Book

This course has associated with it a Connect Math course.

To access the Connect Math course, including temporary free access to the online eBook, go to www.connectmath.com and register using the Connect Math Course ID: C4EGK-EJ4G3 and the Financial Aid Access Code is: 344B4-AAA24-D2B2D-3FA40

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

Math 0324P: Basic Concepts for Business Math is a developmental math course whose topics include: An intro to real numbers including the order of operations with integers, decimals and fractions; An intro to algebra including the simplification and solving of linear equations in one variable along with the use and manipulation of formula; Graphs of linear equations in two variables, slopes, and intercepts; An intro to functions with a focus on function notation using linear, quadratic, and exponential equations; Polynomials including their addition, subtraction, multiplication, division, and basic factoring; and Linear inequalities in one variable and in two variables; A departmental final examination must be passed with a score of 60% or more in order to pass the course.

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 Skills**: 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.
- **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Program Student Learning Outcomes (PSLOs)

During courses in the developmental math program students 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. Learn the foundational mathematical skills that will enable a student to successfully complete a college level math course.

Course Student Learning Outcomes (CSLOs)

Upon completion of MATH 0324P, the student will be able to:

- 1. Identify and apply properties of real numbers and perform accurate arithmetic operations with numbers in various formats.
- 2. Demonstrate the ability to manipulate/simplify algebraic expressions and formulas,
- 3. Solve linear equations in one variable with appropriate techniques.
- 4. Demonstrate the use of elementary graphing techniques as well as use of proper set or interval notation for linear equations and inequalities in two variables.
- 5. Solve systems of equations by various methods.
- 6. Recognize, interpret and manipulate functions along with linear, quadratic, and exponential models.
- 7. Add, subtract, multiply, divide polynomials as well as demonstrate elementary techniques for factoring polynomials.

Learning Objectives

Upon completion of MATH 0324P, the student will be able to:

- 1. add, subtract, multiply, and divide real numbers as well as apply the order of operations to simplify expressions of real numbers
- 2. simplify algebraic expressions
- 3. solve linear equations
- 4. manipulate and evaluate formulas
- 5. graph linear equations by plotting points, plotting intercepts, and using the slope.
- 6. use function notation and evaluate functions
- 7. model situations with linear, quadratic, or exponential functions
- 8. use rules for integer exponents
- 9. add, subtract, multiply and divide polynomials
- 10.apply elementary factoring techniques to factor polynomials.
- 11.solve systems of linear equations
- 12. express solutions to linear inequalities in one variable by interval notation or graph.
- 13. express solutions to linear inequalities in two variables by set notation or graph.

Student Success

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of discrimination, please contact me and/or the Office of Institutional Equity at 713-718-8271.

Course Outline: The lecture schedule contained in this outline is suggested for your usage. Instructors are free to modify the schedule to meet their needs. However, all the sections listed below must be covered. It is suggested that the even numbered problems be used as examples in class and allow the students to practice the odd numbered problems for homework.

Note: If material is labeled "Optional" that means that instructors are strongly encouraged to cover the topic if there is time, but it will not appear on the departmental exams should time constraints require that something be cut.

If material is labeled "omit" that means that the topic is not deemed directly relevant to the course and will not on the departmental exams. Instructors are not prohibited from covering these topics if they like but should only do so after all required and optional topics have been covered.

TOPICS Approximate Time

1 INTRODUCTION TO REAL NUMBERS 1

(7.5 Hours)

- 1.1. Percents, Fractions, and Decimals
- 1.2. Fractions
- 1.3. Introduction to Algebra and the Set of Real Numbers
- 1.4. Addition of Real Numbers
- 1.5. Subtraction of Real Numbers
- 1.6. Multiplication and Division of Real Numbers
- 1.7. Exponents, Square Roots (perfect square radicand only), and the Order of Operations

2 INTRODUCTION TO ALGEBRA

(4.5 Hours)

- 2.1. Properties of Real Numbers and Simplifying Expressions
- 2.2. Addition, Subtraction, Multiplication, and Division Properties of Equality (omit translations)
- 2.3. Solving Linear Equations
- 2.4. Linear Equations: Clearing Fractions and Decimals (entire section is optional)
- 2.5. Formulas and Applications of Geometry (omit geometry applications)

RECOMMEND EXAMINATION 1: COVERS CHAPTERS 1 and 2

<u>(1.5</u>

Note: Calculators and multiple-choice questions are not allowed during exams other than the departmental final. Open ended questions only.

hours)

3 INTRODUCTION TO GRAPHS

(9 Hours)

- 3.1. Rectangular Coordinate System
- 3.2. Linear Equations in Two Variables
- 3.3. Slope of a Line and Rate of Change (omit parallel and perpendicular lines)
- 3.4. Slope-Intercept Form of a Linear Equation (omit parallel and perpendicular lines)
- 3.5. Introduction to Relations (entire section is optional)
- 3.6. Introduction to Functions
- 3.7. Graphs of Functions
- 3.8. Exponential Functions (applications of exponential functions is optional)
- 3.9. Introduction to Modeling

4 POLYNOMIALS

(9 Hours)

- 4.1. Multiplying and Dividing Expressions with Common Bases (omit applications of exponents)
- 4.2. More Properties of Exponents
- 4.3. Definitions of b^0 and $b^(-n)$
- 4.4. Addition and Subtraction of Polynomials (omit polynomials and applications to geometry)
- 4.5. Multiplication of Polynomials and Special Products (omit special products, omit applications to geometry)
- 4.6. Greatest Common Factor and Factoring by Grouping
- 4.7. Introduction to Rational Expressions

RECOMMEND EXAMINATION 2: COVERS CHAPTER 3 and 4

(1.5

Note: Calculators and multiple-choice questions are not allowed during exams other than the departmental final. Open ended questions only.

5 SYSTEMS OF LINEAR EQUATIONS

(4.5 Hours)

- 5.1. Solving Systems of Equations by the Graphing Method
- 5.2. Solving Systems of Equations by the Substitution Method
- 5.3. Solving Systems of Equations by the Addition Method

6 LINEAR INEQUALITIES

(3 Hours)

- 6.1. Linear Inequalities
- 6.2. Linear Inequalities and Systems of Linear Inequalities in Two Variable

RECOMMEND EXAMINATION 3: COVERS CHAPTERS 5 and 6

<u>(1.5</u>

Note: Calculators and multiple-choice questions are not allowed during **hours**) exams other than the departmental final. Open ended questions only.

FINAL EXAM REVIEW

DEPARTMENTAL FINAL: COVERS CHAPTERS 1-6

(2 hours)

Note: Basic calculators are allowed during this exam, graphing calculators, scientific calculators, cell phones, and all other electronics are prohibited

Note: This is a 33 item multiple choice exam covering all required material in the course.

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Math cannot be learned by merely reading or hearing about it, you must spend the time to practice. 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
- Completing assignments
- Participating in class

There is no short cut for success in this course; it requires time and dedication.

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 make up
- Provide the course outline and class calendar which 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
- Participate actively by reviewing course material, practicing the material, 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
- Attain a raw score of at least 60% on the departmental final exam
- Be aware of and comply with academic honesty policies in the <u>HCCS Student Handbook</u>

Assignments, Exams, and Activities

Exams

Remember that in developmental math courses, only the departmental final exam is multiple choice, all other exams are to only contain open ended questions.

The Developmental Math Department is requiring the remote proctoring of examinations (including the Final Exam) to ensure the integrity of the assessment process and to prevent acts of academic dishonesty. In this course, in addition to a reliable internet connection, you will be required to have hardware that meets the following minimal requirements:

- a) A functioning webcam and microphone, and
- b) A computer with operating system that is capable of running the Respondus LockDown Browser and Respondus Monitor. If you are unable to obtain the hardware listed above, please speak with the class instructor.

In-Class Activities

In-Class activities include:

- 1. Welcome to Class Discussions
- 2. Ouestions and answers forum
- 3. Class participation/ attendance.
- 4. Syllabus Quiz

Final Exam

All students will be required to take a cumulative departmental final exam consisting of 33 multiple-choice questions. Students must provide their own Scantron forms. Any student that does not complete at least 60% (20 of 33) of the items correctly on the final exam will receive a failing grade in the course (departmental policy). If a student does complete at least 60% of the items correctly on the final exam, their grade will be determined by the grading formula stated below.

Grading Formula

Final Grade = 20% of HW + 40% of AT + 10% of In-Class Activities+ 30% of Final Exam Where:

- HW is Connect math homework
- AT is Average Tests of Test 1, Test 2 and Test 3.

Grade	Percent
Α	90% +
В	80% - 89%
С	70% - 79%
F/IP	0% - 69%
FX	Excessive absences

Developmental Math Department Grading Policy:

The grade of **D** is not allowed in developmental math courses. The grade of **FX** is given when a student fails due to lack of attendance. Any student that has failed this course for the first time is eligible to receive an IP. Any subsequent failures will receive an F. A grade of **W** may be given on or before the official withdrawal date but not at the time of final grade submission.

HCC Grading Scale can be found on this site under Academic Information: http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar

Exam	Covered Materials	Date
Test 1	Chapters 1 and 2	3/23/2021
Test 2	Chapters 3 and 4	4/15/2021
Test 3	Chapters 5 and 6	5/04/2021
Final Exam	Comprehensive	Date:5/13/2021
		Time:8:00 AM

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

There are no make-up exams given, unless student have a legitimate reason.

Academic Integrity

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.

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 are engaged and complete your assignments and reviews! Practice is the best way to succeed in this class, so I encourage you to practice! This semester, there are three modalities for Developmental Math courses: Online Anytime, Online on a Schedule, and Flex Campus. Online Anytime classes are traditional online courses; coursework is online, and there are no meetings at specific times. Online on a Schedule classes are online courses with traditional meeting components; coursework is online, and there are specific times to log in for scheduled class meetings. Flex Campus are in-person classes; coursework is online, and students have the choice to come to campus or to

participate online during scheduled class meetings. The last day to withdraw from this course is **THURSDAY**, **APRIL 15**, **2021**.

Student Conduct

It is our shared responsibility to develop and maintain a positive learning environment for everyone. As your instructor, I take this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

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 purposes other than student learning is strictly prohibited unless authorized as an appropriate ADA accommodation from the ADA Counselor.

Per department policy, Math 0324P students will be allowed the use of a basic calculator during the departmental final exam. Students should provide their own basic calculator. Scientific and graphing calculators are prohibited.

The use of any calculator during any exam other than the departmental final exam is prohibited and will be considered cheating (see academic integrity section above).

Developmental Math Program Information

For more information on the developmental math program visit: https://learning.hccs.edu/programs/developmental-mathematics

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
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

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Chair of Math	Susan Fife	SW Campus	713-718-7241	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	Mahmoud Basharat	NW Campus	713-718-2438	Katy Campus Building, Rm 112		
Math Assoc. Chair	Emmanuel Usen	NE Campus	713-718-8062	Northline, Rm 324		

Developmental Math Courses

Chair of Dev. Math	Marisol Montemayor	SE Campus	713-718-7153	Felix Morales Building, Rm 124
- Admin. Assistant	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Hien Nguyen	SE Campus	713-718-2440	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Jack Hatton	SW Campus	713-718-2434	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.