

# Division of College Readiness Developmental Mathematics Department

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

# Math 0314: Corequisite Support of Math 1314 | Lecture | #13479

Summer 2020 | 5 Weeks (8/6/2020 - 7/12/2020) | Southwest| Online 3 Credit Hours | 48 hours per semester

#### **Instructor Contact Information**

Instructor: Kubra N. Akbay Office Phone: 713-718-0000 Office: Southwest Office Hours: Mo – We 10AM

HCC Email: kubra.akbay2@hccs.edu Office Location: Missouri City Faculty Area

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 24 hours Monday through Friday; I will reply to weekend messages on Monday mornings.

#### **What's Exciting About This Course**

College Algebra is the very first step entering STEM field. For sure, if we need to choose understand the Algebra, it does enrich our lives. Algebra is used in many fields. For instance: digital games are one of those. We see that how college algebra comes to live visually. How cool!

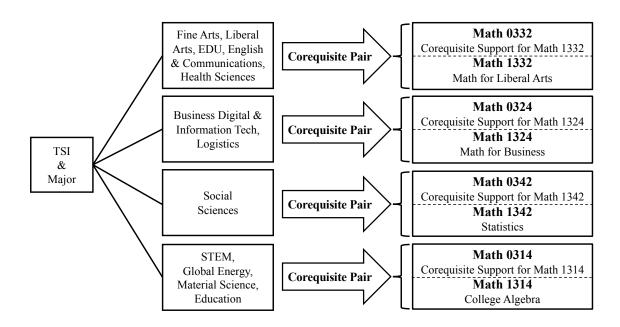
## **My Personal Welcome**

I'm delighted that you have chosen this course! This semester, as a team work, I believe we can accomplish this course. Welcome and wish you all very successful semester. "**There is nothing you can't do If you really want to"** 

# **Prerequisites/Corequisites**

MATH 0314 requires either that a student has passed MATH 0309 or MATH 0314P with a "C" or better  $\bf OR$  TSIA Math Score 336-349 with Intermediate Algebra score 4-15  $\bf OR$  an equivalent score on a Placement Exam

**Corequisites**: MATH 0314 is a corequisite support course for MATH 1314. Students should be aware that sections of these courses are **LINKED**. Therefore, developmental math students who enroll in Math 0314 must also enroll in the linked section of Math 1314 (in the same semester). Developmental students **must maintain satisfactory attendance in BOTH** Math 0314 and Math 1314. If a developmental student withdraws or drops from one course in the corequisite pair, then he/she will be dropped from the other linked course. Corequisite courses must be taken during the same semester. Please carefully read and consider the repeater policy in the <u>HCCS Student Handbook</u>.

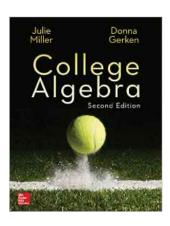


# **Canvas Learning Management System**

This section of MATH 0314 will use <u>Canvas</u> (<a href="https://eagleonline.hccs.edu">https://eagleonline.hccs.edu</a> to supplement inclass assignments, exams, and activities. All the materials and assignments will be on Canvas. Students are expected to visit Canvas every day.

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

## **Instructional Materials**



#### **Textbook Information**

There is no additional textbook requirement for the class.

However, students must have access to a Corequisite Workbook for College Algebra – which is available in Connect Math. In addition to the workbook, students also need College Algebra textbook.

**College Algebra Math 2<sup>nd</sup> ed.** (by Julie Miller and Donna Gerken, McGraw Hill Publishing, 2016).

ISBN: 9781260029604 (textbook and access code for Connect

Math)

ISBN: 9781260029611 (access code with e-book)

You may either use a hard copy of the book or the e-book through

Connect Math.

#### **Other Instructional Resources**

Students must have access to the workbook and Math 1314 textbook. Any additional supplemental material will be provided by the instructor as needed.

#### **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 <a href="https://example.com/hCC-nutoring-n

#### 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 <a href="http://library.hccs.edu">http://library.hccs.edu</a>.

## **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 <a href="http://www.hccs.edu/resources-for/current-students/supplemental-instruction/">http://www.hccs.edu/resources-for/current-students/supplemental-instruction/</a>.

#### **Course Overview**

This course helps students with basic math concepts required to be successful in MATH 1314. Topics include factoring, linear equations, distance and midpoint formulas, quadratic equations and applications, complex numbers, other types of equations, linear inequalities in one variable, and other types of inequalities, linear equations in two variables, functions, analyzing graphs of functions, a library of Parent functions, transformations of functions, combinations of functions, quadratic functions and models, polynomial functions of higher degree, zeros of polynomial functions, rational functions, and inequalities, inverse functions, exponential functions and their graphs, logarithmic functions and their graphs, properties of logarithm and exponential and logarithmic equations, linear and nonlinear systems of equations, two variable linear systems, solving system of equations using matrices, operations with matrices.

# **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 successful completion of this course, students will be successful in MATH 1314 and able to:

- 1. Demonstrate and apply knowledge of properties of functions, including domain and range, Operations, compositions, and inverses.
- 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
- 3. Apply graphing techniques.
- 4. Evaluate all roots of higher degree polynomial and rational functions.
- 5. Recognize, solve and apply systems of linear equations using matrices.

## **Learning Objectives**

Upon completion of MATH 0314, the student will be able to:

- 1. Simplify and Multiply Square Roots of Negative Real Number.
- 2. Solve linear equations in one variable.
- 3. Solve Quadratic Equations in one variable by the method of factoring, square root property, completing the square, and the quadratic formula.
- 4. Solve radical equations and rational equations.
- 5. Solve linear inequalities, linear equations involving absolute value, Compound Inequalities, and Absolute Value Inequalities and state the solution in interval notation, and graph the solution.
- 6. Solve non-linear (quadratic and rational) inequalities, state the solution in interval notation, and graph the solution.
- 7. Solve exponential and logarithmic equations.
- 8. Solve systems of linear and nonlinear in two variables.
- 9. Find the distance and midpoint between two points in the Cartesian Plane.
- 10. Recognize the equation of a straight line, graph the equation of a straight line, find the slope and Intercepts of a line, know the relationship between the slopes of parallel and perpendicular lines, and be able to determine the equation of a line
- 11. Graph linear functions, quadratic functions, piecewise-defined functions, absolute value functions, Rational functions, exponential functions, and logarithmic functions.
- 12. Understand vertical and horizontal shifts, stretching, shrinking, and reflections of graphs of functions.
- 13. Recognize the equation of a circle, sketch the graph of a circle, and find the equation of a circle.
- 14. Determine the rational zeros of a polynomial.
- 15. Apply the definition of a function, determine the domain and range of a function, evaluate Expressions involving functional notation, simplify expressions involving the algebra of functions, and graph functions by plotting points.
- 16. Understand the inverse relationship between the exponential and logarithmic functions.
- 17. Perform operations with matrices.
- 18. Performing row operations on an augmented matrix.

## **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
- Attain a raw score of at least 50% on the departmental final exam
- Be aware of and comply with academic honesty policies in the HCCS Student Handbook

# **Assignments, Exams, and Activities**

#### **Unit Tests**

Unit tests are designed to help student study and succeed in the college level tests. There will be three (3) tests and the lowest one will be replaced with final exam score if the final is higher.

## **College Level Final Exam Review Test**

A minimum of 20 item test based on the college level final exam review will be administered with feedback to be given 1-3 days before the final exam week.

#### **Remote Exam Proctoring (Remote Invigilation)**

The Math Department is requiring the remote proctoring of all major 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.

# **Grading Formula**

Highest 3 Unit Tests: 30% Quizzes: 20% Discussions: 20%

College level final exam review test 30%

Grade	Overall Percentage	
Α	90% +	
В	80%-89%	
С	70%- 79%	
IP	<70% first time	
F	<70% not first time	
FX	Excessive absence	

#### **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. **A grade of IP is given only one time.** A grade of **W** may be given on or before the official withdrawal date but not at the time of final grade submission.

Further support will be recommended for students who pass this class and do not pass the college level class.

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

#### **Course Calendar**

Exam 1 : Chapters 1-2 on June 17th- 18th.

Exam 2 : Chapters 3-4 on June 26th - 27th.

Exam 3 : Chapters 5-6 on July 5th - 6th.

Final Exam : Comprehensive (All chapters) July 8th.

#### **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**

Please note that there will be no make-up exam opportunity unless you have necessary documents. (Dr. note,..etc). Documentation should be presented with in one week.

## **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. If a student gets caught in cheating during test will receive a ZERO.

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**

MATH 0314 is a corequisite support course for MATH 1314. Students should be aware that sections of these courses are **LINKED**. Therefore, developmental math students who enroll in Math 0314 must also enroll in the linked section of Math 1314 (in the same semester). Developmental students **must maintain satisfactory attendance in BOTH** Math 0314 and Math 1314. If a developmental student withdraws or drops from one course in the corequisite pair, then he/she will be dropped from the other linked course. Corequisite courses must be taken during the same semester. Please carefully read and consider the repeater policy in the <u>HCCS Student Handbook</u>.

Even though no regular face-to-face classes are required in online courses, instructors are able to track your activities online, and you will be expected to log in to your course regularly in order to keep up with the course materials. Remember that logging in to the course does not mean just logging into Canvas; you must

click on the name of the course on the global dashboard or under 'Courses' in the global navigation to go to the appropriate course homepage. You should then check the course materials for new items.

If a student doesn't engage with the course work without any excuse before the last day of withdrawal will be dropped from the course.

The last day to withdraw 6/29/2020.

#### **Student Conduct**

Students are expected to treat each other and the instructor with respect. Offensive or inappropriate language is not to be used in any form of communication e.g., emails, discussion postings, group projects, submitted assignments. Students are allowed to disagree with each other or the instructor but must do so in a civil manner.

The discussion area of the course is reserved for postings related to course work only. Postings of a personal or non- academic nature are not permitted and may be removed by the instructor should they appear. Grades and personal issues should be handled by private email or chat to the instructor.

#### **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 Math Student Organizations: Mu Alpha Theta: Application: <a href="https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/stem-clubs/mu-alpha-theta-application/">https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/stem-clubs/mu-alpha-theta-application/</a>
- Mathematics related Scholarships: T-Stem: <a href="https://www.hccs.edu/t-stem">https://www.hccs.edu/t-stem</a>

#### **HCC Policies**

Here's the link to the HCC Student Handbook <a href="http://www.hccs.edu/resources-for/current-students/student-handbook/">http://www.hccs.edu/resources-for/current-students/student-handbook/</a> 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<sup>3</sup>

The EGLS<sup>3</sup> (<u>Evaluation for Greater Learning Student Survey System</u>) 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<sup>3</sup> 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 (<a href="http://www.hccs.edu/departments/institutional-equity/">http://www.hccs.edu/departments/institutional-equity/</a>)

## 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 <a href="http://www.hccs.edu/support-services/">http://www.hccs.edu/support-services/</a>

#### **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	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	Ernest Lowery	NW Campus	713-718-5512	Katy Campus Building, Rm 112
Math Assoc. Chair	Mahmoud Basharat	NE Campus	713-718-2438	Codwell Hall Rm 105

# **Developmental Math Courses**

Chair of Dev. Math	Jack Hatton	SE Campus	713-718-2434	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	Adnan Ulhaque	SW Campus	713-718-5463	Stafford, Learning Hub, Room 208
Technical Support Specialist	Douglas Bump	SE Campus	713-718-7317	Angela Morales Building, Rm 101

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.