HOWARD UNIVERSITY
Department of Mathematics
MATH 010
CRN:_____
Meeting times & Method: _____

This course is a continuation of College Algebra I (MATH 005 or 006) and covers higher degree polynomial and rational functions. It also includes methods of solving systems of linear and nonlinear equations, as well as an introduction to discrete probability. It is designed as a prerequisite to MATH 026, Applied Calculus. Students who expect to take the regular Calculus I, (and possibly II, and III) must take Precalculus (MATH 007), rather than MATH 010.

This course requires the following:
- **Daily online homework:** This homework is available through ALEKS, for which you need to purchase a **student access code. (See below for instructions**.)

The use of ALEKS as an online homework tool is required. Students should buy their electronic books online, using their course codes. Students should go to the website https://www.aleks.com/ and enter their user information. Then they should enter the ALEKS class code to access their homework assignments.

PREREQUISITE: A satisfactory grade ("C" or better) in College Algebra I or an equivalent score in the mathematics placement exam.

I**nstructor: _____**   **Office: _____**
                                                     Extension: _____
                                                     Office Hours and platform: _____
                                                     E-mail: _____
                                                     ALEKS Class Code_____
Schedule of quizzes and exams: Quizzes _____
                                                     Exams:_____
                                                     _____
                                                     _____

        FINAL EXAM   Date____December 6, 2022 3:30-5:30_____

EVALUATION:

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                ____Exams _____ pts each   Total_____
                ____Quizzes _____pts each   Total_____
                ____Homework _____pts   Total_____
                1 Final Exam 200 pts   Total 200
                                                         Grand Total _____

Grading formula: _____   A

_____	B
_____	C
_____	D
Below ___	F

Required text: College Algebra with Trigonometry, Miller & Gerken. Buy at bookstore or online https://www.aleks.com/ The homework access code is required and is more expensive through all other sources.

Student Learning Outcomes:
- Represent and evaluate basic mathematical and/or logical information numerically, graphically, and symbolically.
- Interpret mathematical and/or logical models such as formulas, graphs, tables and schematics, and draw inference from them.
- Students will learn to recognize, analyze and graph higher degree polynomial functions and rational functions.
- Students will learn to find solutions to systems of equations by several methods.
- Students will be introduced to discrete probability

Virtual meeting policies:
1. ***No cell phone usage during class, including texting. No surfing on your computer.*** Please turn your ringer off before the start of class.
2. Research has shown that students who regularly attend class tend to do better than those who do not. Please be on time.
3. Class time calculator policy: _____
4. Be polite to your classmates. Ask questions through the chat feature if the class is large.

TUTORING AVAILABLE: Free tutoring is available during the semester in ASB room 109, during the semester. Talk to your instructor for details.

GRIEVANCE PROCEDURE: If you have any problems with the policies or rules of this course, discuss your concerns with your instructor. If the two of you are unable to come to an agreement, please contact the course coordinator, _____. If you are still unable to come to a satisfactory arrangement, you may contact the Director of Undergraduate Studies, Dr. McGowan, jmcgowan@howard.edu, and then, finally, the Chair of the Department, Dr. Bourama Toni, bourama.toni@howard.edu.

Academic Code of Student Conduct (please see the "Academic Code of Conduct" in the Howard University handbook or Directory of Classes): No copying, unauthorized use of calculators, books, or other materials, or changing of answers or other academic dishonesty will be tolerated.

American Disabilities Act (ADA): Howard University is committed to providing an educational environment that is accessible to all students. In accordance with this policy, students who need accommodations because of a disability should contact Dr. Barbara Williams, Dean for Special Student Services (202-238-2420), as soon as possible after admission to the University or at the beginning of each semester. If you need a special accommodation required by the American Disabilities Act, please document and discuss your disability with me during the FIRST TWO WEEKS of classes.

Statement on Interpersonal Violence: Howard University takes sexual assault, dating violence, domestic violence, stalking and sexual harassment seriously. If a student reveals that he or she needs assistance with any of these issues, all responsible employees, including faculty, are required to share this information with

the University Title IX Office (202-806-2550) or a student can be referred for confidential services to the Interpersonal Violence Prevention Program (IVPP) (202-238-2382) or the University Counseling Services (202-806-6870). For more information, please go to www.CampusSafetyFirst.Howard.Edu

Instructions for homework component: Please be aware that in addition to quizzes and exams, there is an **online homework component** for this course. The deadlines for online homework assignments follows the schedule for the course lectures (below). The homework will be inaccessible after its due date, so do your homework promptly. If you are not able to purchase your access code immediately, approach your instructor about a **financial aid code.** This will allow you access for the first two weeks of the course. The course is MATH 010 202108; the Class Code is _____; use this information and go to WWW.ALEKS.COM There, you will be able to register and then login to the homework content of the course.

COVID-19 STATEMENT:
The wearing of a face mask in the classroom is **mandatory.** Students will be directed to leave the classroom if a face mask is not worn properly to cover the nose and mouth. Any student who refuses or fails to comply with the University's requirements and precautions against COVID-19, and any other measures the University advances for the safety and protection of the Howard Community, will constitute a violation of the University's Student Code of Conduct and could result in sanctions up to and including expulsion from the University.

An estimated schedule of lectures appears below.

ALGEBRA II DAILY SCHEDULE -- Miller & Gerken
MATH 010   MTWF

Month	Date	Section(s)	Lesson	Homework
AUG	22	3.2	Polynomial Fns	ONLINE HOMEWORK
AUG	23	3.3	Division of Polynomials	
AUG	24	3.3	Division of Polynomials	
AUG	26	3.4	Zeros of Polynomials	
AUG	29	3.5	Rational Fns	
AUG	30	3.5	Rational Fns	
AUG	31	3.6	Rational Fns & Ineq	
SEP	2	3.6	Rational Fns & Ineq	
SEP	**5**		**Labor Day**	
SEP	6	3.7	Variation	
SEP	7	3.7	Variation	
SEP	9	**Review**		
SEP	12	**Exam 1**		
SEP	13	9.1	Linear Systems, two var	
SEP	14	9.2	Linear Systems, Three var	
SEP	**16**		**Convocation**	**CLASSES CANCELED 10-1**
SEP	19	9.4	Nonlinear sys	
SEP	20	9.4	Nonlinear sys	
SEP	21	9.5	Inequalities and systems of inequal	
SEP	23	9.5	Inequalities and systems of inequal	
SEP	26	9.6	Linear Programming	
SEP	27	9.6	Linear Programming	
SEP	28	9.6	Linear Programming	

SEP	30		**Review**	
OCT	3		**Exam 2**	
OCT	4	10.1	Solving systems using matrices	
OCT	5	10.1	Solving systems using matrices	
OCT	7	10.2	Inconsistent and dependent eqns	
OCT	**10**		**Mental Health Day**	
OCT	11	10.3	Operations on Matrices	
OCT	12	10.3	Operations on Matrices	
OCT	14	10.4	Inverse Matrices and Martrix Eqns	**Midterm grades due**
OCT	17	10.4	Inverse Matrices and Martrix Eqns	
OCT	18	10.5	Determinants and Cramer's Rule	
OCT	19	10.5	Determinants and Cramer's Rule	
OCT	21		**Review**	
OCT	24		**Exam 3**	
OCT	25	11.1	Ellipses	
OCT	26	11.2	Hyperbolas	
OCT	28	11.2	Hyperbolas	
OCT	31	11.3	Parabolas	
NOV	1	11.3	Parabolas	
NOV	2	12.1	Sequences and Series	
NOV	4	12.1	Sequences and Series	
NOV	7	12.2	Arithmetic Sequences and Series	
NOV	8	12.2	Arithmetic Sequences and Series	
NOV	9	12.3	Geometric Sequences & Series	
NOV	11	12.3	Geometric Sequences & Series	
NOV	14	12.4	Binomial Formula	
NOV	15	12.4	Binomial Formula	
NOV	16	12.6	Principles of Counting	
NOV	18	12.6	Principles of Counting	
NOV	21	12.7	Introduction to Probability	
NOV	22	12.7	Introduction to Probability	
NOV	23		**Thanksgiving (half day)**	
NOV	25		**Thanksgiving**	
NOV	**28**		**Review**	
NOV	**29**		**Exam 4**	
NOV	30		Review for Final**	
DEC	2		Review for Final**	
DEC	**6**	**3:30-5:30**	**FINAL EXAM**	

**http://www.coas.howard.edu/mathematics/more_pexams.html

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