MATH 007 • Precalculus

Term	Spring 2026
Credit Hours	4
Modality	
Schedule	
Location	
ALEKS Class Code	
Instructor	
Email	
Office	
Office Hours	

Course Syllabus

Course Description

"Graphing and analysis of higher-order polynomial and rational functions, trigonometry (including the unit circle, trigonometric identities, inverse trigonometric functions, and applications of trigonometric functions), and systems of equations. **Students planning to take MATH 156 should take this course. It is not intended for those students planning to take MATH 026; they should take 010 instead.**"

Student Learning Outcomes

Students will build—through extensive examples—intuition about the profound and pervasive dictionary between algebra and geometry.

The algebra of polynomials and rational functions, presented in formulas, graphs, and tables, describes the geometry of lines, parabolas, and more complicated shapes, including their asymptotic behavior. The algebra of trigonometric functions and identities, including the Pythagorean theorem, describes the geometry of circles, angles, triangles, and periodic graphs, including many elementary real-world problems. The algebra of systems of linear equations and matrices describes the geometry of how lines and planes intersect.

Toward the end of the course, students will also be introduced to limits, and to the motivating problems of calculus.

Prerequisites

A C grade or better in 005 or 006, or a satisfactory score on the Mathematics Placement Exam.

Course Materials

Miller & Gerken, *College Algebra & Trigonometry*, 2nd Ed. **This text is required.**

All homework will be submitted through an online tool called ALEKS. Students who buy their textbook from the bookstore automatically receive an ALEKS code. **Otherwise, students must buy their books from https://www.aleks.com to ensure a working code.** Upon receiving the code, they can then enter their user information into the website and access homework assignments.

Homework deadlines will follow the class schedule on the next page. Your instructor will set the precise due dates. Please do assignments promptly, because after their due dates, you will no longer be able to access them.

You are expected to buy the textbook within the first two weeks of the course. **If you cannot buy your book immediately, your instructor can provide a financial aid code to allow you to start the homework.**

Attendance and Participation

Please attend class on time. Please check directly with your instructor about their attendance policy.

No use of phones or computers during class. This includes texting. As for graphing calculators, please check with your instructor.

If you get sick, please inform the instructor as soon as possible, with documentation as appropriate. Please stay at home and take care of yourself.

Grading and Evaluation

Homework	10%
Exam 1	20%
Exam 2 (Midterm)	20%
Exam 3	20%
Final Exam	30%

Exams

Absolutely no use of phones, computers, graphing calculators, or other electronic tools on any exams, except by explicit permission of the instructor, confirmed in advance with the course coordinator. On any exam, whether in-person or online, you are bound by the Howard Honor Code.

If you need to reschedule an exam, then **you must contact your instructor and receive confirmation well in advance of the original exam date.** Please note that your instructor may not be able to grant last-minute requests.

If you are a prospective Spring 2026 graduate, **please inform your instructor by email and cc the course coordinator** (minhtam.trinh@howard.edu). Such students will take a different, earlier final exam, during the period 4/21–4/23.

Academic Honesty

Please keep in mind the Academic Code of Student Conduct in the Howard University Student Handbook. Cheating is a stain on your honor. No academic cheating, plagiarism, or copy infringement will be tolerated. These terms are defined on page 13 of the handbook. Anyone caught cheating will receive an F for the course, and may be expelled from the university. **This policy extends to the use of any AI tools, including LLMs and other generative AIs, to commit cheating or other intentional acts of dishonesty.**

Grievance Procedure

Please discuss any concerns or problems you have with the course policies directly with your instructor.

If you cannot come to an agreement with your instructor, then please contact the course coordinator, Dr. Minh-Tam Trinh (minhtam.trinh@howard.edu). Should you still be unable to resolve the situation, you may contact the Director of Undergraduate Studies in the Department of Mathematics, Dr. Sam Hopkins (sam.hopkins@howard.edu), and ultimately, the Department Chair, Dr. Bourama Toni (bourama.toni@howard.edu).

Course Schedule

Week	*Date*	*Lesson Objectives*	*Text*	*Notes*
1	1/12	Syllabus, functions and their graphs	§3.1	
	1/13	Polynomials, degrees, linear functions and their graphs	3.1–3.2	
	1/14	Quadratic polynomials and their graphs	3.1–3.2	
	1/16	Factoring	3.3	
2	1/19			*MLK Day*
	1/20	Higher-order polynomials, more examples of factoring	3.3	
	1/21	Analogies between polynomials and integers, polynomial division and remainders	3.3	
	1/23	Practicing polynomial long division	3.3	
3	1/26	Zeros of polynomials, multiplicities	3.4	
	1/27	Complex numbers, complex vs real zeros	3.4	
	1/28	Rational functions and their graphs	3.5	
	1/30	Zeros and poles of rational functions	3.5	
4	2/2	Asymptotes	3.5	
	2/3			**Review**
	2/4			**Exam 1**
	2/6	Circles, radius, circumference, π	5.1	

5	2/9	Angles, degrees vs radians	5.1	
	2/10	Triangles, their angles and areas, congruence, right triangles	5.2	
	2/11	The Pythagorean theorem	5.2	
	2/13	The unit circle	5.4	
6	2/16			*Presidents' Day*
	2/17	More practice with the unit circle	5.4	
	2/18	The sine and cosine functions and their graphs	5.5	
	2/20	More practice with sine and cosine	5.5	
7	2/23	The tangent function and its graph, other trigonometric functions	5.6	
	2/24	Inverse functions and their domains	5.7	
	2/25	Graphing inverse functions	5.7	
	2/27	Inverse trigonometric functions	5.7	
8	3/2	Graphing inverse trigonometric functions	5.7	
	3/3			**Review**
	3/4			**Exam 2 (Midterm)**
	3/6			*Charter Day Convocation*
9	3/9–3/13			*Spring Recess*
10	3/16	The Pythagorean theorem for trigonometric functions	6.1	
	3/17	The sum and difference formulas	6.2	
	3/18	More practice with the sum and difference formulas	6.2	
	3/20	The double-angle and half-angle formulas	6.3	
11	3/23	Solving for side lengths and angles in right triangles	7.1	
	3/24	Applications of right triangles	7.1	
	3/25	The law of sines	7.2	
	3/27	The law of cosines	7.3	
12	3/30	Harmonic motion	7.4	
	3/31			**Review**
	4/1			**Exam 3**
	4/3			*Mental Health Day*

13	4/6	Equations for lines in a plane	9.1	
	4/7	Systems of two linear equations in two variables, intersecting lines	9.1	
	4/8	Equations for planes in a 3-dimensional space	9.2	
	4/10	Systems of three linear equations in three variables	9.2	
14	4/13	Nonlinear systems of equations	9.4	
	4/14	Linear vs nonlinear inequalities	9.5	
	4/15	Matrices and their operations	10.1–10.2	
	4/17	Systems of linear equations as matrix equations	10.1	
15	4/20	Dependent vs independent vs inconsistent systems, determinants of 2 × 2 matrices	10.3	
	4/21	Inverting 2 × 2 matrices	10.3	
	4/22	The notion of a limit, examples of limits	10.5	
	4/24	More examples of limits	10.5	
16	4/27	The motivating problems of calculus		
	4/28–4/29			*Reading Period*
	TBA			**Final Exam***

* except for prospective Spring 2026 graduates

University Services

Academic and Student Support Services

For tutoring services, visit the Tutoring & Learning Support Services Office.
For writing assistance, visit the Writing Center.
For library services, visit the Howard University Libraries.
For academic advising, visit the Academic Advising Services.
For general student academic support, visit the Center for Academic Excellence.
For general student support, visit the Division of Student Affairs.

Technology Support

Enterprise Technology Services (ETS) and LMS support:

- Canvas has 24/7 support via chat or call 1-877-686-8251. To access Canvas Chat, click the Help icon in the bottom left corner of your Canvas Dashboard.
- For questions about the LMS or third-party tools, visit My Helpdesk and select LMS Support.
- For general tech-support questions, visit My Helpdesk and select Technical Support.
- To contact ETS:
  Phone: 202-806-2020
  Email: huhelpdesk@howard.edu

Proctorio support:

- Visit here for frequently asked questions.
- To contact Proctorio:
  Phone: 480-428-4089 or toll-free at 866-948-9248
  Email: support@proctorio.com

University Statements and Compliance

The Americans with Disabilities Act (ADA)

Howard University is committed to creating an accessible, inclusive, and safe learning environment for all students and providing equal access to students with documented disabilities. Students seeking reasonable accommodations must first register with the Office of Student Services (OSS). There you can engage in a confidential conversation about the process for requesting reasonable accommodations in the classroom and clinical settings, which the Office of Student Services (OSS) determines. Accommodations must be requested each semester. Accommodations are not provided retroactively. If you want to request accommodations, please contact OSS via email at oss.disabilityservices@howard.edu or visit https://howard.edu/disability-services.

COVID-19 Statement

The indoor mask mandate has been lifted on campus for all faculty, staff, students, and visitors, with a notable exception like patient settings. Faculty may continue to require masks for individual classes. In those classes where a face mask is required,

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 a specific classroom requirement to wear a face mask, 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.

LGBTQ+

Howard University is committed to providing an educational, living, and working environment that is welcoming, respectful, and inclusive of all members of the University community, including all sexes, sexual orientations, gender expressions, and gender identities. For more information please contact the Division of Student Affairs.

Educational Benefits and Opportunities

No member of the University Community shall deny a student fair access to all educational opportunities and benefits available at the University. To find more information on this policy, please refer to the Code of Ethical Conduct. To report a concern, visit the Office of Student Affairs

The Family Educational Rights and Privacy Act (FERPA)

It is the policy of Howard University (the "University) to ensure that information contained within the education records of all students is protected to the fullest extent of the law. To find more information about this policy visit the FERPA Policy page.

Title IX Statement

Howard University's *Policy Prohibiting Sex and Gender-Based Discrimination, Sexual Misconduct and Retaliation* (aka, the Title IX Policy) prohibits discrimination, harassment, and violence based on sex, gender, gender expression, gender identity, sexual orientation, pregnancy, or marital status. With the exception of certain employees designated as confidential, note that all Howard University employees – *including all faculty members* – are required to report any information they receive regarding known or suspected prohibited conduct under the Title IX Policy to the Title IX Office (TitleIX@howard.edu or 202-806-2550), regardless of how they learn of it. For *confidential* support and assistance, you may contact the Interpersonal Violence Prevention Program (202-836-1401) or the University Counseling Service (202-806-7540). To learn more about your rights, resources, and options for reporting and/or seeking confidential support services (including additional confidential resources, both on and off campus), visit https://howard.edu/title-ix.

Academic Code of Conduct

Howard University is a community of scholars composed of faculty and students both of whom must hold the pursuit of learning and search for truth in the highest regard. Such regard requires adherence to the goal of unquestionable integrity and honesty in the discharge of teaching and learning responsibilities. The prescribed policies and procedures that pertain to violation of the academic integrity policy are contained in the Student Handbook. Please note include the appropriate student handbook from

your perspective college or school (e.g. Howard university school of law student handbook, etc.)

Expected Computer and Digital Literacy Skills

The following computer skills and digital information literacy skills expected for this course include:

- Using the learning management system (Canvas)
- Using email
- Uploading and downloading documents, files, etc.
- Using web conferencing tools and software
- Using remote/virtual libraries and databases
- Properly citing information sources

Communication Policy

Use Standard English in all areas of communication. Although many Internet users are accustomed to lower-case writing and abbreviations, our written exchange should reflect the educational setting in which we are operating. Therefore, out of respect for our institution, as well as to model good practices for our distance learners, please use only polished, thoughtful written expression.

Do not hesitate to ask questions, give suggestions, or raise an issue during the course. If you feel lost or frustrated, please contact one of the facilitators as soon as possible, and let others help you.

Component	*What you may expect from instructors*	*What is expected of you*
Email	An instructor will respond to your emails within 48 hours. We often check our email and typically respond promptly. However, please allow an entire business day before emailing again on the same question or issue. Emails sent on Saturday or Sunday will receive a reply by Monday or Tuesday. Please do not expect to receive email from your instructor on Saturdays or Sundays.	If you have a personal question, please send an email. Please sign all your emails with your full name.
Phone	You are welcome to call your instructor, although our preferred communication is through email. If it is a matter of solving a technology question, please email the helpdesk at helpdesk@howard.edu. Please be aware that your instructor will not be available to return or receive your calls on Saturdays or Sundays.	If you do not receive a response follow up. Be sure to check your emails to ensure you are responsive, should the helpdesk have questions. Include your full name, the name of the course, the name of

		the instructor, and a clear description of your issue. Provide a contact number, should they need to call back.
Announcements	Your instructor will post announcements about any updates to the course.	Read the announcements from the instructor.
Office Hours	We will be available to make an appointment with you should you require additional assistance outside of our established lab sessions. Please be aware that it will be imperative to email us to set up an appointment time and we will be available virtually.	Contact the instructor to set up additional time to meet. Be prepared to use Canvas Collaborate or the designated web conferencing medium in order to access us virtually during your appointed time.

Privacy Polices

Adobe
Canvas
Echo 360
Flickr
McGraw Hill Campus & Higher Education
Microsoft
Pearson My Lab & Mastering
Poll Everywhere
Proctorio
SlideShare
Wiley Course Resources & Wiley Plus
YouTube