

# MASTER OF ARTS IN THE FIELD OF MATHEMATICS (STEM)

The master of arts in mathematics degree program builds students' expertise in sophisticated mathematical concepts, including analysis, combinatorics, dynamical systems, knot theory, logic, and topology, and applied mathematics. MA students can also take advantage of research opportunities, internships at Washington, DC institutions, and courses offered through the Consortium of Universities of the Washington Metropolitan Area (<https://registrar.gwu.edu/consortium/>). Graduates of the MA program go on to advanced degrees and competitive careers (<https://math.columbian.gwu.edu/alumni-outcomes/>) in the public, private, and nonprofit sectors.

This is a STEM designated program.

Visit the program website (<https://math.columbian.gwu.edu/ma-mathematics/>) for additional information.

## ADMISSIONS

Admission deadlines: Fall – April 1 (February 1 for fellowship consideration)

Standardized test scores: GRE general test is recommended but not required; GRE subject test is recommended but not required (institutional code 5246).

The Test of English as a Foreign Language (TOEFL), the academic International English Language Testing System (IELTS), or the PTE Academic is required of all applicants except those who hold a bachelor's, master's, or doctoral degree from a college or university in the United States or from an institution located in a country in which English is the official language, provided English was the language of instruction.

Minimum scores for the program are:

- Academic IELTS: an overall band score of 6.0 with no individual score below 5.0; or

- TOEFL: 600 on paper-based or 100 on Internet-based; or

- PTE Academic: 53;

Prerequisite A bachelor's degree in mathematics or comparable requirements coursework.

Recommendations (2) recommendations required:

Prior academic records: Transcripts are required from all colleges and universities attended, whether or not credit was earned, the program was completed, or the credit appears as transfer credit on another transcript. Unofficial transcripts from all colleges and universities attended must be uploaded to your online application. Official transcripts are required only of applicants who are offered admission. If transcripts are in a language other than English, English language translations must be provided. The English translation alone should be uploaded into your application.

Statement of purpose: In an essay of 250 – 500 words, state your purpose in undertaking graduate study in your chosen field. Include your academic objectives, research interests, and career plans. Also discuss your related qualifications, including collegiate, professional, and community activities, and any other substantial accomplishments not already mentioned on the application. If you are applying for an assistantship or fellowship, you should also describe any teaching experience you have had.

International applicants only: Please review International Applicant Information (<https://columbian.gwu.edu/international-graduate-applicants>) (<https://columbian.gwu.edu/international-graduate-applicants/>) carefully for details on required documents, earlier deadlines for applicants requiring an I-20 or DS-2019 from GW, and English language requirements. Please note: international students who require a student visa from GW are not eligible to apply for admission to the Certificate program.

Supporting documents not submitted online should be mailed to:

Columbian College of Arts and Sciences, Office of Graduate Studies  
The George Washington University  
801 22nd Street NW, Phillips Hall 107  
Washington DC 20052

For additional information about the admissions process visit the Columbian College of Arts and Sciences Frequently Asked Questions (<https://columbian.gwu.edu/graduate-admissions-faq/>) page.

Contact:

askccas@gwu.edu  
202-994-6210 (phone)

Hours: 9:00 am to 5:00 pm, Monday through Friday

## REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Graduate Programs (<https://bulletin.gwu.edu/arts-sciences/#regulationsgraduatetext>).

30 credits, including 12 credits in required courses, and 18 credits in elective courses selected in consultation with the department's graduate committee and in accordance with the following guidelines:

Up to 6 credits in non-MATH courses within GW can count toward degree requirements. Students must petition and obtain the approval of the graduate committee to register for courses outside the department.

Up to 9 credits in mathematics courses taken at other institutions in the Consortium of Universities of the Washington Metropolitan Area (<https://registrar.gwu.edu/consortium/>) can count toward degree requirements. Students must petition and obtain the approval of the graduate committee to take courses through the Consortium.

Up to 6 credits in undergraduate MATH courses within GW can be taken for graduate credit and counted toward degree requirements. Students must petition and obtain the approval of the graduate committee and have the permission of the instructor to take undergraduate courses. Appropriate additional work must be assigned for students to receive graduate credit for an undergraduate course.

Code	Title	Credits
Required		
Students must complete at least two of the following two-course sequences:		
Algebra		
MATH 6101 & MATH 6102	Algebra I and Algebra II	
Analysis		
MATH 6214 & MATH 6215	Measure and Integration Theory and Introduction to Functional Analysis	
Applied mathematics		
MATH 6318 & MATH 6319	Applied Mathematics I and Applied Mathematics II	
Topology		
MATH 6810 & MATH 6820	General Topology and Algebraic Topology	