APPLIED MATHEMATICS - M.A.

College of Arts and Sciences
Department of Mathematical Sciences
www.kent.edu/math

About This Program

The Master of Arts degree in Applied Mathematics is emphasizes areas relevant to mathematical applications in the sciences, including engineering, biological, financial and physical sciences. There is no thesis requirement or option.

Students in the Ph.D. degree in Applied Mathematics can apply for this M.A. degree after completing the requisite number of credit hours.

Contact Information

- **Artem Zvavitch** | azvavitc@kent.edu | 330-672-3316

- Connect with an Admissions Counselor: U.S. Student | International Student

Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Kent Campus

Examples of Possible Careers and Salaries*

Data scientists and mathematical science occupations, all other

- 30.9% much faster than the average
- 33,200 number of jobs
- $98,230 potential earnings

Mathematical science teachers, postsecondary

- 1.3% slower than the average
- 60,100 number of jobs
- $73,650 potential earnings

Mathematicians

- 3.0% about as fast as the average
- 2,900 number of jobs
- $110,860 potential earnings

Natural sciences managers

- 4.8% about as fast as the average
- 71,400 number of jobs
- $137,940 potential earnings

Statisticians

- 34.6% much faster than the average
- 42,700 number of jobs
- $92,270 potential earnings

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

- Bachelor's degree from an accredited college or university[1]
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Résumé or vita
- Goal statement
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive) by earning one of the following:[2]
  - Minimum 71 TOEFL iBT score
  - Minimum 6.0 IELTS score
  - Minimum 50 PTE score
  - Minimum 100 DET score

[1] Applicants are not required to have an undergraduate degree in applied mathematics; however, they are expected to have proficiency in numerical analysis and statistics at the level of MATH 40012 and MATH 42202. They are also expected to have taken computer science coursework equivalent to CS 13001. Those who do not meet these specific requirements may be granted conditional admission by the Graduate Studies Committee.

[2] International applicants who do not meet the above test scores may be considered for conditional admission.

Application Deadlines

- **Fall Semester**
  - Application deadline: March 1
- **Spring Semester**
  - Application deadline: October 1
- **Summer Term**
  - Application deadline: March 1

Applications submitted after these deadlines will be considered on a space-available basis.

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements [1]		
Choose two sequences from the following:		13-14

MATH 60051 & MATH 60052	PROBABILITY I and PROBABILITY II	
MATH 60061 & MATH 60062	MATHEMATICAL STATISTICS I and MATHEMATICAL STATISTICS II	
MATH 62041 & MATH 62042	METHODS OF APPLIED MATHEMATICS I and METHODS OF APPLIED MATHEMATICS II	
MATH 62251 & MATH 62252	NUMERICAL ANALYSIS I and NUMERICAL ANALYSIS II	
Mathematics (MATH) Graduate Electives (50000 or 60000 level) [2]		12
Mathematics (MATH) Graduate Electives (60000 level) [3]		6-7
Minimum Total Credit Hours:		**32**

[1] A detailed plan of study should be submitted for advisor approval before the first 16 credit hours of graduate credit have been completed.

[2] With permission of the advisor, maximum 12 credit hours of 50000-level Mathematics (MATH) courses may be applied toward the total required for the degree. Candidates who do not have an undergraduate degree in applied mathematics should include MATH 52031 and MATH 52045 in their program.

[3] Minimum 20 credit hours must at the 60000-level or above (includes required MATH courses). Maximum 3 credit hours of MATH 67199 may be counted toward the 20 credit hours.

Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
-	3.000

- Degree candidates must pass the departmental qualifying examination at the master's level in numerical analysis, probability or statistics, in addition to one additional area chosen from among the areas listed for master's degree programs.

- No more than one-half of a graduate student's coursework may be taken in 50000-level courses.

- Grades below C are not counted toward completion of requirements for the degree.

Program Learning Outcomes

Graduates of this program will be able to:

1. Engage effectively in problem solving, including exploring examples, devising and testing conjectures and assessing the correctness of solutions.

2. Reason in mathematical arguments at a level appropriate to the discipline, including posing problems precisely, articulating assumptions and reasoning logically to conclusions.

3. Approach mathematical problems creatively, including trying multiple approaches and modifying problems when necessary to make them more tractable.

4. Communicate mathematics clearly both orally and in writing.

5. Teach university-level mathematics effectively.

6. Obtain depth in some subdiscipline of applied mathematics.