MATHEMATICS - B.A.

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

Contact Information
- Program Coordinator: Xiaoyu Zheng | xzheng3@kent.edu | 330-672-9089
- Speak with an Advisor
  - Kent Campus
  - Stark Campus
- Chat with an Admissions Counselor

Fully Offered
- Delivery: In person
- Location: Kent Campus, Stark Campus

Examples of Possible Careers*
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

Secondary school teachers, except special and career/technical education
- 3.8% about as fast as the average
- 1,050,800 number of jobs
- $62,870 potential earnings

*Note
Source of occupation titles and labor data is 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.

Description
The Bachelor of Arts degree in Mathematics is a flexible program, grounded in the liberal arts and suited for students’ individual interests and needs. The program combines well with a second major and/or minors.

Admission Requirements
The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

First-Year Students on the Kent Campus: First-year admission policy on the Kent Campus is selective. Admission decisions are based upon cumulative grade point average, strength of high school college preparatory curriculum and grade trends. Students not admissible to the Kent Campus may be administratively referred to one of the seven regional campus to begin their college coursework. For more information, visit the admissions website for first-year students.

First-Year Students on the Regional Campuses: First-year admission to Kent State’s campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Twinsburg Academic Center, is open to anyone with a high school diploma or its equivalent. Check with a regional campus admissions office to determine application requirements, as they may differ among campuses.

International Students: All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 525 TOEFL score (71 on the Internet-based version), minimum 75 MELAB score, minimum 6.0 IELTS score, minimum 48 PTE score or minimum 100 DET score; or by completing the ESL level 112 Intensive Program. For more information, visit the admissions website for international students.

Transfer Students: For more information, visit the admissions website for transfer students.

Former Students: Former Kent State students or graduates who have not attended another college or university since Kent State may complete the reenrollment or reinstatement form on the University Registrar’s website.

Professional Licensure Disclosure
This program is designed to prepare students to sit for applicable licensure or certification in Ohio. If you plan to pursue licensure or certification in a state other than Ohio, please review state educational requirements for licensure or certification and contact information for state licensing boards at Kent State’s website for professional licensure disclosure.

University Requirements
All students in a bachelor’s degree program at Kent State University must complete the following university requirements for graduation.

NOTE: University requirements may be fulfilled in this program by specific course requirements. Please see Program Requirements for details.
Major Requirements (courses count in major GPA)  

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12002</td>
<td>ANALYTIC GEOMETRY AND CALCULUS I (KMCR) (min C grade)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 12003</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II (min C grade)</td>
<td>5</td>
</tr>
<tr>
<td>MATH 20011</td>
<td>DECISION-MAKING UNDER UNCERTAINTY</td>
<td>3</td>
</tr>
<tr>
<td>MATH 21001</td>
<td>LINEAR ALGEBRA (min C grade)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 22005</td>
<td>ANALYTIC GEOMETRY AND CALCULUS III (min C grade)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 31011</td>
<td>PROOFS IN DISCRETE MATHEMATICS (min C grade)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 41001</td>
<td>MODERN ALGEBRA I (ELR) (WIC) (min C grade in either course)</td>
<td>3</td>
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<tr>
<td>or MATH 42001</td>
<td>ANALYSIS I (ELR) (WIC)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 41002</td>
<td>MODERN ALGEBRA II (ELR) (WIC)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 42002</td>
<td>ANALYSIS II (ELR) (WIC)</td>
<td>3</td>
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<tr>
<td>Mathematics Electives, choose from the following:</td>
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<tr>
<td>MATH 30055</td>
<td>MATHEMATICAL THEORY OF INTEREST</td>
<td>3</td>
</tr>
<tr>
<td>MATH 32044</td>
<td>ORDINARY DIFFERENTIAL EQUATIONS</td>
<td>3</td>
</tr>
<tr>
<td>MATH 38001</td>
<td>HANDS-ON MATHEMATICS</td>
<td>3</td>
</tr>
<tr>
<td>MATH 40011</td>
<td>PROBABILITY THEORY AND APPLICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>MATH 40012</td>
<td>THEORY OF STATISTICS (WIC)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 40015</td>
<td>APPLIED STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>MATH 40024</td>
<td>COMPUTATIONAL STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>MATH 40028</td>
<td>STATISTICAL LEARNING</td>
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</tbody>
</table>

Minimum Total Credit Hours: 120
Graduation Requirements

Minimum Major GPA | Minimum Overall GPA
-------------------|---------------------
2.000              | 2.000               

Foreign Language College Requirement, B.A.

Students pursuing the Bachelor of Arts degree in the College of Arts and Sciences must complete 14-16 credit hours of foreign language.¹ To complete the requirement, students need the equivalent of Elementary I and II in any language, plus one of the following options²:

1. Intermediate I and II of the same language
2. Elementary I and II of a second language
3. Any combination of two courses from the following list:

   - Intermediate I of the same language
   - ARAB 21401
   - ASL 19401
   - CHIN 25421
   - MCLS 10001
   - MCLS 20001
   - MCLS 20091
   - MCLS 21417
   - MCLS 21420
   - MCLS 22217
   - MCLS 28403
   - MCLS 28404

¹ All students with prior foreign language experience should take the foreign language placement test to determine the appropriate level at which to start. Some students may start beyond the Elementary I level and will complete the requirement with fewer credit hours and fewer courses. This may be accomplished by (1) passing a course beyond Elementary I through Intermediate II level; (2) receiving credit through one of the alternative credit programs offered by Kent State University; or (3) demonstrating language proficiency comparable to Elementary II of a foreign language. When students complete the requirement with fewer than 14 credit hours and four courses, they will complete remaining credit hours with general electives.

² Certain majors, concentrations and minors may require specific languages, limit the languages from which a student may choose or require coursework through Intermediate II. Students who plan to pursue graduate study may need particular language coursework.

Roadmap

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

### Semester One

<table>
<thead>
<tr>
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<td>ANALYTIC GEOMETRY AND CALCULUS I (KMCR)</td>
<td>5</td>
</tr>
<tr>
<td>UC 10097</td>
<td>DESTINATION KENT STATE: FIRST YEAR EXPERIENCE</td>
<td>1</td>
</tr>
</tbody>
</table>

Computer Programming Elective: 3
Foreign Language: 4
Kent Core Requirement: 3

**Credit Hours**: 16

### Semester Two

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MATH 12003</td>
<td>ANALYTIC GEOMETRY AND CALCULUS II</td>
<td>5</td>
</tr>
</tbody>
</table>

Minimum Total Credit Hours: 120