MATHEMATICS - MINOR

College of Arts and Sciences
Department of Mathematical Sciences
233 Mathematics and Computer Science Building
Kent Campus
330-672-2430
math@math.kent.edu
www.kent.edu/math

Description
The Mathematics minor offers study in several areas of pure mathematics and can be combined with several majors, including those in the sciences and education.

Fully Offered At:
• Kent Campus
• Stark Campus

Admission Requirements
Admission to a minor is open to students declared in a bachelor's degree, the A.A.B. or A.A.S. degree or the A.T.S. degree (not Individualized Program major). Students declared only in the A.A. or A.S. degree or the A.T.S. degree in Individualized Program may not declare a minor. Students may not pursue a minor and a major in the same discipline.

Minor Requirements
[MATH]

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<th>Code</th>
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<th>Credit Hours</th>
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Prerequisite Requirements

MATH 10774  ALGEBRA FOR CALCULUS STRETCH II (KMCR)
or MATH 10775 ALGEBRA FOR CALCULUS PLUS (KMCR)
or MATH 11010 ALGEBRA FOR CALCULUS (KMCR)

MATH 11022  TRIGONOMETRY (KMCR)

Computer Programming Elective, choose from the following:
CS 10051  INTRODUCTION TO COMPUTER SCIENCE (KMCR)
CS 10062  PROGRAMMING FOR PROBLEM SOLVING IN SCIENCES
CS 13001  COMPUTER SCIENCE I: PROGRAMMING AND PROBLEM SOLVING
CS 13011  & CS 13012  COMPUTER SCIENCE IA: PROCEDURAL PROGRAMMING and COMPUTER SCIENCE IB: OBJECT ORIENTED PROGRAMMING (min C grade in both courses)
DSCI 15310  COMPUTATIONAL THINKING AND PROGRAMMING

Minor Requirements

MATH 12002  ANALYTIC GEOMETRY AND CALCULUS I (KMCR)  5
MATH 12003  ANALYTIC GEOMETRY AND CALCULUS II  5
MATH 21001  LINEAR ALGEBRA WITH APPLICATIONS  3
MATH 22005  ANALYTIC GEOMETRY AND CALCULUS III  4
MATH 31011  PROOFS IN DISCRETE MATHEMATICS  3

or MATH 32044  ORDINARY DIFFERENTIAL EQUATIONS
or Mathematics Upper-Division Course (MATH 40000 level)

Mathematics Electives, choose from the following:  6

Algebra
MATH 41001  MODERN ALGEBRA I (ELR) (WIC)
MATH 41002  MODERN ALGEBRA II (ELR) (WIC)
MATH 41021  THEORY OF MATRICES
MATH 47011  THEORY OF NUMBERS

Analysis
MATH 42001  ANALYSIS I (ELR) (WIC)
MATH 42002  ANALYSIS II (ELR) (WIC)
MATH 42041  ADVANCED CALCULUS
MATH 42045  PARTIAL DIFFERENTIAL EQUATIONS
MATH 42048  COMPLEX VARIABLES

Geometry/Topology
MATH 42021  GRAPH THEORY AND COMBINATORICS
MATH 45011  DIFFERENTIAL GEOMETRY
MATH 45021  EUCLIDEAN GEOMETRY
MATH 45022  LINEAR GEOMETRY
MATH 46001  ELEMENTARY TOPOLOGY

Minimum Total Credit Hours:  26

Graduation Requirements

Minimum Minor GPA
2.000

• Students must complete at least two upper-division (30000 or 40000 level) courses in the minor at Kent State on a graded basis (A-F).
• Minimum 6 credit hours in the minor must be upper-division coursework (30000 and 40000 level).
• Minimum 6 credit hours in the minor must be outside of the course requirements for any major or other minor the student is pursuing.
• Minimum 50 percent of the total credit hours for the minor must be taken at Kent State (in residence).