

APPLIED 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 Applied Mathematics minor offers courses in several areas of mathematics that are applicable to sciences and can be combined with science majors.

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

Code	Title	Credit Hours
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Minor Prerequisites

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)	
Prerequisite Electives, choose from the following:		
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 ¹	
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
Choose from the following:		8-10
Selection A		
MATH 21001	LINEAR ALGEBRA	
MATH 22005	ANALYTIC GEOMETRY AND CALCULUS III	
MATH 32044	ORDINARY DIFFERENTIAL EQUATIONS	

Selection B

MATH 32051	MATHEMATICAL METHODS IN THE PHYSICAL SCIENCES I	
MATH 32052	MATHEMATICAL METHODS IN THE PHYSICAL SCIENCES II	
Minor Electives, choose from the following: ²		6
MATH 23022	DISCRETE STRUCTURES FOR COMPUTER SCIENCE ³	
or MATH 31011 PROOFS IN DISCRETE MATHEMATICS		
MATH 40011	PROBABILITY THEORY AND APPLICATIONS	
MATH 40012	THEORY OF STATISTICS	
MATH 40051	TOPICS IN PROBABILITY THEORY AND STOCHASTIC PROCESSES	
MATH 41021	THEORY OF MATRICES	
MATH 42011	MATHEMATICAL OPTIMIZATION	
MATH 42031	MATHEMATICAL MODELS AND DYNAMICAL SYSTEMS	
MATH 42039	MODELING PROJECTS (ELR) (WIC)	
MATH 42041	ADVANCED CALCULUS	
MATH 42045	PARTIAL DIFFERENTIAL EQUATIONS	
MATH 42048	COMPLEX VARIABLES	
MATH 42201	NUMERICAL COMPUTING I	
MATH 42202	NUMERICAL COMPUTING II	

Minimum Total Credit Hours: 24

- ¹ A minimum C grade must be earned in CS 13011 and CS 13012.
- ² Students should select electives in consultation with the student's minor advisor.
- ³ Credit for both MATH 23022 and MATH 31011 is not permitted. Students planning to take Computer Science upper-division courses (CS 30000 or 40000 level) must take MATH 23022.

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).