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MATH 215 Discrete Mathematics

4 undergraduate credits

Effective August 1, 1998 to present

Meets graduation requirements for

- Goal 4: Mathematical or Logical Reasoning

This course covers a variety of important topics in math and computer science. Topics include: logic and proof, sets and functions, induction and recursion, elementary number theory, counting and probability, and basic theory of directed graphs.

Prerequisites

- MATH 115: College Algebra
- or MATH 120: Precalculus
- or MATH 210: Calculus I
- or MATH 211: Calculus II
- or MATH 310: Calculus III: Multivariable Calculus

Special information

Note: Students whose prerequisites are not identified by the system should contact the Math and Statistics department for an override at MATH@metrostate.edu.

Learning outcomes

General

- Understand fundamental combinatorics principles including permutations and combinations and apply them to discrete probability problems.
- Understand recursive algorithms and their applications.
- Understand symbolic logic and predicate calculus. Master methods of proof including direct proof, proof by contradiction and mathematical induction.
- Understand the fundamentals of elementary number theory including the Euclidean algorithm and number systems. Understand the notion of an algorithm.
- Understand functions, relations and directed graphs.

Spring 2025

Section	Title	Instructor	books	eservices
01	Discrete Mathematics	Naughton, Gerry	Books	Course details ▶
02	Discrete Mathematics	Calcaterra, Craig	Books	Course details ▶
03	Discrete Mathematics	Calcaterra, Craig	Books	Course details ▶
04	Discrete Mathematics	Horan, Sean T	Books	Course details ▶
50	Discrete Mathematics	Moniri, Mojtaba	Books	Course details ▶
51	Discrete Mathematics	Naughton, Gerry	Books	Course details ▶

Summer 2025

Section	Title	Instructor	books	eservices
01	Discrete Mathematics	Samuel, Delia D	Books	Course details ▶
02	Discrete Mathematics	Roddin, Daniel William	Books	Course details ▶
50	Discrete Mathematics	Naughton, Gerry	Books	Course details ▶

Fall 2025

Section	Title	Instructor	books	eservices
01	Discrete Mathematics	Staff, Staff	Books	Course details ▶
02	Discrete Mathematics	Staff, Staff	Books	Course details ▶
03	Discrete Mathematics	Staff, Staff	Books	Course details ▶
04	Discrete Mathematics	Staff, Staff	Books	Course details ▶
50	Discrete Mathematics	Staff, Staff	Books	Course details ▶
51	Discrete Mathematics	Staff, Staff	Books	Course details ▶



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Admissions:
651.793.1302

Midway Center Location
1450 Energy Park Drive
Saint Paul, MN 55108-5274

Minneapolis Location
Management Education Center
1300 Harmon Place
Minneapolis, MN 55403-1897
Map and parking info

Mailing address:
1501 Hennepin Avenue
Minneapolis, MN 55403-1897

**Public Safety and
Police Science Center**
9110 Brooklyn Boulevard
Brooklyn Park, MN 55445-2410

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