

Mathematics

Degrees Offered

- Bachelor of Arts
- Bachelor of Science

Nature of the Program

The Department of Mathematics provides a curriculum for:

- Students wishing to earn an undergraduate major or minor in mathematics
- Students enrolled in elementary and secondary teacher programs
- Students interested in the applications of mathematics to the fields of computer science, statistics, engineering, physical, natural and social science, and business and economics
- Non-science majors, to educate them in the ideals and objectives of mathematics

Students who earn a degree in the Eberly College of Arts and Sciences must complete the University requirements, the College requirements for their specific degree program, and their major requirements.

Area of Emphasis

Students enrolled in the B.S. in Mathematics have the opportunity to earn an Area of Emphasis in six different areas. All majors take a core selection of Mathematics courses and choosing an optional Area of Emphasis guides the choice of additional courses toward various career pathways.

- Actuarial Science
- Computational Mathematics
- Mathematical Biology
- Mathematics Education
- Physical Applied Mathematics
- Pure Mathematics

Students may not earn both a Bachelor of Arts and a Bachelor of Science in Mathematics.

Minors

All students have the possibility of earning one or more minors; view a list of all available minors and their requirements (<http://catalog.wvu.edu/undergraduate/minors/>) here. Please note that students may not earn a minor in their major field.

Mathematics Learning Center

The Mathematics Learning Center is a free walk-in tutoring center open 5-days a week. It is located at ARM 301B and the hours are posted on the door or on the Mathematics Department webpage. The MLC tutors help with all undergraduate Mathematics courses through Calculus. The MLC also employees students who are proficient in Mathematics. For more information about the center you can call (304)293-2011 or contact Dr. Renee LaRue at reneelarue@math.wvu.edu.

FACULTY

DIRECTOR OF THE SCHOOL OF MATHEMATICAL AND DATA SCIENCES

- Jessica Deshler - Ph.D. (University of New Mexico)

ASSOCIATE DIRECTOR FOR MATHEMATICS

- Adrian Tudorascu - Ph.D. (Carnegie Mellon University)
Regular Graduate Faculty, Partial Differential Equations, Optimal Transport

ASSOCIATE DIRECTOR FOR STATISTICS

- Kenneth Ryan - Ph.D. (Iowa State University)
Regular Graduate Faculty, Semi-supervised learning and design of experiments

ASSISTANT DIRECTOR FOR UNDERGRADUATE STUDIES

- David Miller - Ph.D. (Oklahoma State University)
Regular Graduate Faculty, Undergraduate Math Education; Cognitive Science; STEM Education

PROFESSORS

- Krzysztof Ciesielski - Ph.D. (Warsaw University)
Regular Graduate Faculty, Analysis, Topology, Set theory, MRI imaging
- Marjorie Darrah - Ph.D. (West Virginia University)
Applied Mathematics, Mathematics Education
- Jessica Deshler - Ph.D. (University of New Mexico)
Regular Graduate Faculty, Undergraduate Mathematics Education, Equity in Mathematics, Graduate Student Development
- Harvey Diamond - Ph.D. (Massachusetts Institute of Technology)
Regular Graduate Faculty, Approximation theory, Applied mathematics
- Harry Gingold - D.Sc. (Israel Institute of Technology)
Regular Graduate Faculty, Discrete Finite Difference systems of Equations, Factorization of Power Series, Foundation (Geometry), Mathematical Cryptography, Optimization, Compactification, Ordinary Differential Systems of Equations, Asymptotics, Approximations, Turning point theory, Celestial Mechanics
- Erin Goodykoontz - Ed.D. (West Virginia University)
Associate Graduate Faculty, Introductory Concepts of Mathematics
- Rong Luo - Ph.D. (West Virginia University)
Regular Graduate Faculty, Graph Theory, Discrete Math
- David Miller - Ph.D. (Oklahoma State University)
Regular Graduate Faculty, Undergraduate Math Education, Cognitive Science, STEM Education
- Robert Mnatsakanov - Ph.D. (Tbilisi State University)
Regular Graduate Faculty, Applied probability, Approximation of functions from moments, Risk models
- Laura Pyzdrowski - Ed.D. (West Virginia University)
Regular Graduate Faculty, Undergraduate Math Education, Cognitive Science, STEM Education, K-12 Outreach, Distance Learning, Instructional Technology
- Kenneth Ryan - Ph.D. (Iowa State University)
Regular Graduate Faculty, Semi-supervised learning and design of experiments
- Adrian Tudorascu - Ph.D. (Carnegie Mellon University)
Regular Graduate Faculty, Partial Differential Equations, Optimal Transport
- Jerzy Wojciechowski - Ph.D. (University of Cambridge)
Regular Graduate Faculty, Combinatorics, Graph theory

ASSOCIATE PROFESSORS

- Olgur Celikbas - Ph.D. (University of Nebraska)
Regular Graduate Faculty, Commutative Algebra, Homologic Algebra
- Vito D'Orazio - Ph.D. (Pennsylvania State University)
Regular Graduate Faculty, Data Sciences
- Adam Halasz - Ph.D. (State University of New York at Stony Brook)
Regular Graduate Faculty, Molecular systems biology, Monte Carlo methods, Mathematical physics
- Renee LaRue - Ph.D. (West Virginia University)
Associate Graduate Faculty, Undergraduate Mathematics Education
- Kevin Milans - Ph.D. (University of Illinois)
Regular Graduate Faculty, Combinatorics, Graph Theory, and Partially Ordered Sets
- Lori Ogden - Ph.D. (West Virginia University)
Associate Graduate Faculty, Undergraduate Mathematics Education, Associate Director for the Institute for Math Learning
- Casian Pantea - Ph.D. (University of Wisconsin-Madison)
Regular Graduate Faculty, Mathematical biology, dynamical systems
- Vicki Sealey - Ph.D. (Arizona State University)
Regular Graduate Faculty, Calculus Coordinator, Undergraduate Math Education, Calculus Student Learning
- Charis Tsikkou - Ph.D. (Brown University)
Regular Graduate Faculty, Hyperbolic and Mixed Type Partial Differential Equations, Conservation Laws

ASSISTANT PROFESSORS

- Krista Bresock - Ph.D. (West Virginia University)
Undergraduate Mathematics Education
- Ela Celikbas - Ph.D. (University of Nebraska)
Regular Graduate Faculty, Commutative Algebra, Representation Theory
- Srinjoy Das - Ph.D. (University of California, San Diego)
Regular Graduate Faculty, Data Sciences
- Ryan Hansen - Ph.D. (West Virginia University)
Combinatorics
- Cody Hood - Ph.D. (West Virginia University)
Undergraduate Mathematics Education
- Josh Karr - Ph.D. (West Virginia University)
Mathematics Education
- Mihyun Kim - Ph.D. (Colorado State University)
Regular Graduate Faculty, Statistics
- Ignacio Segovia Dominguez - Ph.D. (Centro de Investigación en Matemáticas)
Regular Graduate Faculty, Applied Mathematics, Statistical Modeling and Computer Science
- Matthew Schraeder - Ph.D. (West Virginia University)
Undergraduate Mathematics Education
- Youngseok Song - Ph.D. (Colorado State University)
Regular Graduate Faculty, High-dimensional Statistic, Graphical Model, Large-scale Inferences, Network Analysis

INSTRUCTORS

- Joelleen Bidwell - M.A. (West Virginia University)
- Jennifer Kearns - M.S. (West Virginia University)
- Clark Metz - M.S. (West Virginia University)
- Gabriel Tapia - M.S. (West Virginia University)
- Galyna Voitiuk - Ph.D. (West Virginia University)
- Sylvanus Waibogha - M.S. (West Virginia University)
- Iwona Wojciechowska - Ph.D. (West Virginia University)

PROFESSORS EMERITI

- Gary Ganser - Ph.D. (Rensselaer Polytechnic Institute)
Modeling, Data Analysis
- John Goldwasser - Ph.D. (University of Wisconsin-Madison)
Combinatorics, Graph Theory
- Harumi Hattori - Ph.D. (Rensselaer Polytechnic Institute)
Differential Equations, Continuum Mechanics
- Jack T. Goodykoontz Jr. - Ph.D. (University of Kentucky)
Topology
- Henry W. Gould - M. A. (University of Virginia)
Number Theory, Combinatorics, Special Functions
- Caulton L. Irwin - Ph.D. (Emory University)
Associate director, N.R.C.C.E. Variational methods, Optimization, Applied mathematics
- Hong-Jian Lai - Ph.D. (Wayne State University)
Graph Theory, Matroid Theory
- Dining Li - Ph.D. (Fudan University)
Partial Differential Equations
- Michael E. Mays - Ph.D. (Pennsylvania State University)
Number Theory
- Sherman D. Riemenschneider - Ph.D. (Syracuse University)
Approximation Theory, Wavelets, Signal Processing
- Cun-Quan Zhang - Ph.D. (Simon Fraser University)
Graph theory, Combinatorics, Algorithms, Bioinformatics, Data Mining

Admissions for 2025-2026

The Admission Requirements for the 2025-2026 Academic Year will be as follows:

- First Time Freshmen are admitted to the major directly. For the timely completion of the degree, it is recommended that students have a minimum MATH ACT of 22, a MATH SAT of 540, or an ALEKS score of 45.
- Students transferring from another WVU major must have completed MATH 155 with C- or higher and have earned a 2.0 overall GPA.
- Students transferring from another institution must have completed MATH 155 with C- or higher and have earned a 2.0 overall GPA.

Major Code: 1457

Degree Progress

- By the end of their the second semester (excluding summer) in the major, at minimum, students must have completed MATH 126 with a minimum grade of C-.
- By their 5th semester in the major, students should have completed calculus courses through MATH 261 with a minimum grade of C- and have satisfactorily completed or be enrolled in MATH 303.
- Normally, students must register for 9 hours of math each subsequent term.
- All majors must meet with a math department adviser each semester.

Students who fail to meet these benchmarks may be removed from their major.