

# Mathematics

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## Department Information

- **Department Chair:**  
Friedrich Littmann, Ph.D.
- **Graduate Coordinator:**  
Indranil Sengupta, Ph.D.
- **Department Location:**  
412 Minard Hall
- **Department Phone:**  
(701) 231-8171
- **Department Web Site:**  
[www.ndsu.edu/math/](http://www.ndsu.edu/math/) (<http://www.ndsu.edu/math/>)
- **Application Deadline:**  
March 1 to be considered for assistantships for fall. Openings may be very limited for spring.
- **Credential Offered:**  
Ph.D., M.S.
- **English Proficiency Requirements:**  
TOEFL iBT 71; IELTS 6; Duolingo 100

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## Program Description

The Department of Mathematics offers graduate study leading to the degrees of Master of Science (M.S.) and Doctor of Philosophy (Ph.D.). Advanced work may be specialized among the following areas:

- algebra, including algebraic number theory, commutative algebra, and homological algebra
- analysis, including analytic number theory, approximation theory, ergodic theory, harmonic analysis, and operator algebras
- applied mathematics, mathematical finance, mathematical biology, differential equations, dynamical systems,
- combinatorics and graph theory
- geometry/topology, including differential geometry, geometric group theory, and symplectic topology

Beginning with their first year in residence, students are strongly urged to attend research seminars and discuss research opportunities with faculty members. By the end of their second semester, students select an advisory committee and develop a plan of study specifying how all degree requirements are to be met. One philosophical tenet of the Department of Mathematics graduate program is that each mathematics graduate student will be well grounded in at least two foundational areas of mathematics. To this end, each student's background will be assessed, and the student will be directed to the appropriate level of study.