

**Mathematics MS requirements
Indiana State University**

1. **Foundation:** Take at least one of:

- MATH 510 Introduction to Analysis
- MATH 512 Abstract Algebra
- MATH 513 Linear Algebra

2. **Core courses:** Take at least three of:

- | | |
|--|---|
| <input type="checkbox"/> MATH 511 Theory of Numbers | <input type="checkbox"/> MATH 612 Commutative Algebra |
| <input type="checkbox"/> MATH 526 Topology I | <input type="checkbox"/> MATH 613 Applied Linear Algebra |
| <input type="checkbox"/> MATH 530 Real Variables I | <input type="checkbox"/> MATH 625 Dynamical Systems |
| <input type="checkbox"/> MATH 531 Complex Variables I | <input type="checkbox"/> MATH 640 Graph Theory |
| <input type="checkbox"/> MATH 533 Partial Differential Equations | <input type="checkbox"/> MATH 646 Linear Programming and Optimization |
| <input type="checkbox"/> MATH 536 Numerical Analysis I | |
| <input type="checkbox"/> MATH 537 Mathematical Modeling | |
| <input type="checkbox"/> MATH 541 Theory of Probability | |
| <input type="checkbox"/> MATH 542 Mathematical Statistics | |

3. **Electives:** Courses at the 500 or 600-level courses with the MATH prefix:

- | | |
|---|---|
| <input type="checkbox"/> MATH 5__ _____ | <input type="checkbox"/> MATH 6__ _____ |
| <input type="checkbox"/> MATH 5__ _____ | <input type="checkbox"/> MATH 6__ _____ |
| <input type="checkbox"/> MATH 5__ _____ | <input type="checkbox"/> MATH 6__ _____ |
| <input type="checkbox"/> MATH 5__ _____ | <input type="checkbox"/> MATH 6__ _____ |
| <input type="checkbox"/> MATH 5__ _____ | <input type="checkbox"/> MATH 6__ _____ |

4. **Research:** Take at least three hours of:

- MATH 695 Mathematics Research

5. **Credits:**

- At least half of the credits must be taken at the 600 level or higher
- A minimum of 33 credits must be completed