



Masters of Science in Applied Mathematics (MMATH)

Major Electives

| Code | Title | Credits | Prerequisites | Corequisites |
|-------|----------|---------|---------------|--------------|
| | Elective | 3 | | |
| | Elective | 3 | | |
| | Elective | 3 | | |
| | Elective | 3 | | |
| Total | | 12 | | |

Core Requirements

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|------------------------------|---------|---------------|--------------|
| MATH502 | Algebra | 3 | | |
| MATH505 | Numerical linear algebra | 3 | | |
| MATH510 | Real Analysis | 3 | | |
| MATH520 | Functional Analysis | 3 | | |
| MATH522 | Topology | 3 | | |
| MATH560 | Modern Differential Geometry | 3 | MATH520 | |
| MATH595 | Special graduate skills | 0 | | |
| MATH599 | Thesis | 6 | | |
| Total | | 24 | | |

Major Elective Courses

| Code | Title | Credits | Prerequisites | Corequisites |
|---------|--|---------|-----------------|--------------|
| MATH500 | Complex Analysis | 3 | | |
| MATH506 | Higher Linear Algebra | 3 | | |
| MATH511 | Analysis in Euclidean Spaces | 3 | | |
| MATH515 | Advanced Numerical Analysis | 3 | MATH505 | |
| MATH516 | Optimization Theory | 3 | | |
| MATH518 | Topics in Number Theory | 3 | | |
| MATH524 | Mathematical Fluid Dynamics I | 3 | | |
| MATH525 | Finite Element Methods | 3 | MATH540 | |
| MATH530 | Distribution Theory | 3 | MATH520 | |
| MATH534 | Mathematical Fluid Dynamics II | 3 | MATH524 | |
| MATH536 | Field Theory | 3 | MATH502 | |
| MATH540 | Partial Differential Equations | 3 | MATH520 | |
| MATH542 | Algebraic topology | 3 | MATH522 | |
| MATH544 | Computational Fluid Dynamics | 3 | MATH524 | MATH534 |
| MATH545 | Ordinary Differential Equations | 3 | | |
| MATH546 | Lie Groups and Lie Algebra | 3 | | |
| MATH550 | Non-Euclidean Geometries | 3 | | |
| MATH554 | Continuum Mechanics | 3 | | |
| MATH555 | Dynamical Systems | 3 | MATH545 | |
| MATH556 | Matrix Theory | 3 | | |
| MATH565 | Applied Nonlinear Partial Differential Equations | 3 | MATH540 | |
| MATH566 | Graph theory | 3 | | |
| MATH570 | Riemannian Geometry | 3 | MATH560 | |
| MATH571 | Fractal Geometry | 3 | MATH522-MATH510 | |
| MATH575 | Differential Topology | 3 | MATH520-MATH522 | |
| MATH576 | Statistics | 3 | | |

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|---------|-------------------------------|---|--|--|
| MATH582 | Mathematics Education | 3 | | |
| MATH583 | Topics in Mathematics | 3 | | |
| MATH585 | Topics in Applied Mathematics | 3 | | |
| MATH586 | Topics in Statistics | 3 | | |