

CSU Channel Islands MS Mathematics Curriculum

Last revised on March/2022. Information still current.

1 Prerequisites for the program

- The majority of the students admitted into the MS program have a bachelor's degree in mathematics or a closely related discipline.
- It is recommended that you have completed at least one semester in each of the following topics: real analysis, probability and statistics, and abstract algebra.
- Students lacking recommended prerequisites may be admitted conditionally and advised to take undergraduate courses necessary to prepare fully for the program.

2 Requirements for the Master of Science in Mathematics - 32 units

Core Courses - 11 units

- MATH 511 Functional Analysis (3)
- MATH 512 Probabilistic Methods and Measure Theory (3)
- MATH 513 Advanced Algebra (3)
- MATH 599 Graduate Seminar (1)
- MATH 599 Graduate Seminar (1) (again)

Electives - 15 units

Choose **at least two** electives from the following list:

- MATH 570 Combinatorics (3)
- MATH 582 Number Theory and Cryptography (3)
- MATH 584 Algebraic Geometry and Coding Theory (3)
- MATH 587 Markov Chains and Markov Processes (3)
- MATH 588 Stochastic Analysis (3)
- MATH 590 Graduate Topics in Mathematics

Also, choose **at most three** electives from the following list:

- MATH 555 Actuarial Sciences (3)
- MATH 565 Research in Mathematics Education (3)
- PHYS 510 Advanced Image Analysis Techniques (3)
- PHYS 546 Pattern Recognition (3)
- COMP 554 Algorithms (3)
- COMP 569 Artificial Intelligence (3)
- COMP 571 Biologically Inspired Computing (3)
- COMP 572 Neural Networks (3)
- COMP 575 Multi-Agent Systems (3)
- COMP 578 Data Mining (3)
- MATH 594 (Independent Study) and other graduate courses from mathematics or the mathematical sciences may be included with the graduate advisor's approval.

Projects or Masters Thesis Concentration - 6 units

- MATH 597 Master Thesis (1-6) or
- MATH 598 Master Project (1-6)

3 Graduate Writing Assessment Requirement

Writing proficiency prior to the awarding of the degree is demonstrated by successful completion of

- at least two credits of MATH 597 (Master's Thesis) or
- MATH 598 (Masters Project) with a grade of B or higher

4 Thesis

See *Thesis* for additional information.