



University of California, Santa Barbara  
Program Learning Outcomes

MA in Mathematics

**Students graduating with a MA in Mathematics should be able to:**

*Core Knowledge*

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- Demonstrate a mastery in Algebra and Mathematical Analysis to a level commensurate with current standards in mathematics, including groups, rings, fields, linear algebra, real analysis, and complex analysis (*Area Requirements Option*).
- Demonstrate mastery of Mathematics at an advanced undergraduate level in linear algebra, real and complex analysis (*Thesis Option*).

*Research Methods and Analysis*

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- Conduct primary research literature searches in their chosen subfield (*Thesis Option*).
- Use pure mathematical or applied methods to understand some aspect of the frontiers of mathematical knowledge.
- Students will be able to plan and execute a research project, analyze relevant findings, and organize results into a coherent argument (*Thesis Option*).

*Pedagogy*

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- Communicate mathematical concepts to a variety of audiences.

*Scholarly Communication*

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- Communicate effectively the results of their research to professionals within their subfield, and within the broader mathematics community, through both oral presentation and written work (*Thesis Option*).