The Master's Degree in Mathematics at Saint Louis University

Coursework

The master's degree requires ten courses in mathematics at the 400-level or higher. At least seven of the courses must be at the 500-level or higher. All master's students must complete at least two 500-level sequences chosen from algebra, analysis and topology. The typical student's program is built around a number of year-long sequences from areas including algebra, analysis, and topology. The department typically offers year-long sequences in algebra, analysis, complex variables and probability and statistics at the 400-level; algebra, analysis, and topology at the 500-level; and differential geometry at the 600-level. The department also routinely offers a variety of electives determined by student and faculty interest. Full time students typically take three courses a semester and complete the degree in two years.

The first year master's student usually takes two or three year-long sequences. If a student has not had courses in algebra or analysis at the undergraduate level, then the student usually takes the 400-level algebra and analysis sequences. This prepares the master's students to take the 500-level sequences in algebra, analysis and topology their second year. For students who have had substantial coursework in algebra or analysis at the undergraduate level, some of the 500-level sequences could be completed in the first year.

Additional Requirements

In addition to the ten courses in mathematics, master's students must take a comprehensive oral exam in the final semester of their program. This exam is administered by three faculty members. Typically these professors are ones the student has had for his or her coursework. Questions may deal with any of the ten courses that the student has taken as part of the master's program but often the greatest emphasis is given to the 400-level and 500-level courses in algebra, analysis, and topology.

Master's students have the option of writing a Master's thesis. In that case, two of the courses in the second year would be devoted to research for the thesis, and the Master's oral exam is replaced by an oral defense of the thesis.

A master's student must obtain at least a 3.0 GPA overall. If after the first year the GPA is lower than a 3.0 the teaching assistantship cannot be renewed for the second year. Furthermore a B (or better) must be obtained in each course comprising the two required 500-level sequences. (A master's student who plans to pursue a PhD in mathematics should maintain a GPA above a 3.0 and should include some A's.)

Financial Support

A master's student can receive up to 2 years of support as a teaching assistant. Renewal of the assistantship for the second year is not guaranteed as the student needs to demonstrate sufficient progress towards the degree.