The present study examined the factor structure of newly-developed attitude toward mathematics instrument (MAT). The 25-item MAT was so developed that it consisted of five subscales: anxiety, enjoyment, self-confidence, value, and technology. These subscales were found as a result of thorough literature review. The sample consisted of 163 (M= 82 , F= 81) undergraduates enrolled in Algebra course in the Spring 2017 quarter at a university located in the midwestern region of the United States. The scores obtained from the survey were subjected to Exploratory Factor Analysis. The survey data was also subjected to independent samples t-tests and one-way ANOVA to investigate the differences between undergraduates’ attitudes toward mathematics based on their gender, college-year, and major field of study. This presentation will expand upon the development of the MAT instrument, the results, and the future directions for this study. (Received September 23, 2017)