In Fall 2011, the seminar course *Applications of Wavelets* was taught for the first time at Allegheny College, with Calculus I as the only prerequisite. The course was part of Allegheny’s First-Year/Sophomore Program, which is designed to enhance students’ writing and speaking skills. After describing the structure of the course, we will present a summary of the successes and challenges. (Received August 22, 2011)