

1125-P1-418      **Stephen Lovett\*** ([stephen.lovett@wheaton.edu](mailto:stephen.lovett@wheaton.edu)), 501 College Avenue, Wheaton, IL 60187.  
*The Four Cs of Investigative Projects in Abstract Algebra.*

Since it often stands as a gateway between entry-level and upper-level, mathematics curricula often expect abstract algebra to play many roles: to deepen students' proof skills; to introduce structures in modern mathematics; to begin to develop a research mindset; and to teach specifically groups, rings and fields. The usual menu of weekly homework sets, quizzes, or in-class tests do not fully address all of these objectives. By emphasizing clarity, correctness, completeness, and creativity, investigative projects help students address many of the desired objectives of an abstract algebra course, including writing and research skills. This talk offers a report on eight years of fine-tuning the effectiveness of team-oriented investigative projects. By illustrating with actual student work, we discuss the evaluation categories, feedback and revision mechanisms, sample questions, a role in the assessment of the major, and usefulness for letters of recommendation. (Received September 01, 2016)