1035-V1-151   **Suzanne Hamon*** (`shamon@jburroughs.org`), 755 S. Price Rd, St. Louis, MO 63124.
Foundations of Abstract Mathematics.

In the spring of 2006 I was asked by two high school seniors who had taken BC Calculus prior to their senior year to put together an independent study for them. I accepted knowing that the following year there would five students in a similar situation for which I was asked to teach a more formal course: "The Foundations of Abstract Mathematics" .

Through conversation with high school teachers and numerous professors, including department chairs, I developed a course that would give these young people a foundation for any future math course. It was fairly universal among those to whom I spoke that students lack a foundation in logic and exposure to those topics outside the realm of traditional high school mathematics. I chose a variety of topics for the "Foundations" course, including multivariable calculus, linear algebra, group theory, graph theory, point-set topology, and logic. We also took a few classes to talk about knots, Klein bottles, and my own academic research in commutative ring theory.

In this presentation I will discuss which topics I chose and the rationale behind those decisions, the topics that were successful, and why we should strive not to teach high school students mathematics beyond BC Calculus. (Received July 31, 2007)