Most proof and problem solving courses involve students rummaging through logic, and then learning proof structure by example. In this talk, I will define a lab-style proof course. In each class, I give students minimal direction as they disperse quickly into teams to solve problems via proofs. When active in engagement, students can seek knowledge from their peers. This encourages students to take ownership of creating mathematics on the foundation of logical structures. In this talk I will describe in detail my challenges and experiences in creating and teaching this course. (Received September 22, 2015)