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Stan Perrine* (sperrine@csuniv.edu). *How Do You Get Students Involved in Writing Proofs? One (Method) at a Time.* Preliminary report.

When are students formally introduced to the art of writing proofs? In a typical undergraduate curriculum, this focus happens in a "bridge" course - typically titled "Intro to Advanced Math" or sometimes more nebulously, "Discrete Math". This talk will focus not on the content of the "bridge" course, but the order of topics from a pedagogical nature. For most, these courses have an introduction to logic and the different basic proof techniques, and then the techniques are showcased in subsequent chapters, each of which focuses on a specific subject area - groups, number theory, analysis, etc... My proposal (to be first implemented in my course this coming spring) is to invert the two - after an introduction to logic, each subsequent "chapter" will focus on one proof technique - direct, contradiction, induction, etc... and focus on applying that technique over and over to multiple branches of mathematics, with the (anticipated) result of better retention of the proof techniques by the students, even in lieu (possibly) of full retention of the definitions and theorems themselves. (Received September 16, 2010)