A Theory Based Introductory Programming Course

This paper presents an introductory programming course designed to teach programming as an intellectual activity. The course emphasizes understandable concepts which can be useful in designing programs, while the oddities of today's technology are considered of secondary importance. An important goal is to fight the trial-and-error approach to programming which is a result of the students battles with horribly designed and documented systems and languages prior to their studies at university. Instead, the authors strive for giving the students a good experience of programming as a systematic, intellectual activity where the solution of a programming problem can be described in an understandable way. The approach is illustrated by an example which is a commented solution of a problem posed to the students in the course.