Teaching Excel VBA as a problem solving tool for chemical engineering core courses

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This project aims to initiate the teaching of user-friendly Excel Visual Basic for Application (VBA) programming in chemical engineering at the Hong Kong University of Science and Technology (HKUST) with the emphasis on relevant examples/projects selected from chemical engineering core courses. The course is designed with the emphasis on not only how to program, but also on problem solving and how to convert a chemical engineering problem into a working program. Several chemical engineering problems were selected as either projects or demonstration programs in order to allow students to experience the advantage of programming in Excel VBA. Comparison to other programming languages students had been previously taught and to other available software packages which do not have any programming requirement (e.g. Polymath) was made in these demonstration examples to let students understand the advantages or disadvantages of programming in Excel VBA. © 2010 The Institution of Chemical Engineers.

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