

Students Perceptions on the Relevance of High School Mathematics in University Education in South Africa

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Abstract : In this study we investigated the relevance of high school mathematics in university education. The paper particularly focused on whether the concepts taught in high school are enough for engineering courses at diploma level. The study identified particular concepts that are required in engineering courses whether they were adequately covered in high school. A questionnaire was used to investigate whether relevant topics were covered in high school. The respondents were 228 first year students at the Central University of Technology in the Faculty of Engineering and Information Technology. The study indicates that there are some topics such as integration, complex numbers and matrices that are not done at high schools and are required in engineering courses at university. It is further observed that some students did not cover the topics that are in the current syllabus. Female students enter the university less prepared than their male counterparts. More than 30% of the respondents in this study felt that high school mathematics was not useful for them to be able to do engineering courses.

Keywords : high school mathematics, university education, SPSS package, students' perceptions

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