

Mathematical Knowledge a Prerequisite for Science Education Courses in Tertiary Institution

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Abstract : Mathematics has been regarded as the backbone of science and technological development, without which no nation can achieve any sustainable growth and development. Mathematics is a useful tool to simplify science by quantification of phenomena; hence physics and chemistry cannot be done without Calculus and Statistics. Mathematics is used in physical science to calculate the measurement of objects and their characteristics, as well as to show the relationship between different functions and properties. Mathematics is the building block for everything in our daily lives, including the use of mobile devices, architecture design, ancient arts, engineering sports, and. among others. Therefore the study of Mathematics is made compulsory at primary, basic, and secondary school levels. Thus, this paper discusses the concepts of Mathematics, science, and their relationships. Also, it discusses Mathematics contents needed to study science-oriented courses such as physics education, chemistry education, and biology education in the tertiary institution. The paper concluded that without adequate knowledge of Mathematics, it will be difficult, if not impossible, for science education students to cope in their field of study.

Keywords : mathematical knowledge, prerequisite, science education, tertiary institution

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