

## Importance of Mathematical Modeling in Teaching Mathematics

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**Abstract :** Today, in engineering departments, mathematics courses such as calculus, linear algebra and differential equations are generally taught by mathematicians. Therefore, during mathematicians' classroom teaching there are few or no applications of the concepts to real world problems at all. Most of the times, students do not know whether the concepts or rules taught in these courses will be used extensively in their majors or not. This situation holds true of for all engineering and science disciplines. The general trend toward these mathematic courses is not good. The real-life application of mathematics will be appreciated by students when mathematical modeling of real-world problems are tackled. So, students do not like abstract mathematics, rather they prefer a solid application of the concepts to our daily life problems. The author highly recommends that mathematical modeling is to be taught starting in high schools all over the world In this paper, some mathematical concepts such as limit, derivative, integral, Taylor Series, differential equations and mean-value-theorem are chosen and their applications with graphical representations to real problems are emphasized.

**Keywords :** applied mathematics, engineering mathematics, mathematical concepts, mathematical modeling

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