

**INDUSTRIAL TRAINING REPORT**

**AT**

**UNIVERSITI TEKNOLOGI PETRONAS (UTP)**

**31750 TRONOH**

**PERAK**

**BY**

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**STUDENTS' PERFORMANCE IN ENGINEERING MATHEMATICS  
COURSES OF JANUARY 2012 INTAKE IN UNIVERISTI TEKNOLOGI  
PETRONAS**

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## **ABSTRACT**

Mathematical courses are widely used in almost all educational institutions. . Students of Faculty of Engineering in Universiti Teknologi PETRONAS are required to take Pre-Calculus and Calculus in foundation while Ordinary Differential Equation (ODE) in first semester followed by Vector Calculus in second semester in degree level. The problem occur in the department is the results of ODE and Vector Calculus are continuously falling. Therefore, the main focus for this study was to identify the students' performance in Mathematics courses and factors related to the performance. The dependent variable for this study is ODE Mark while independent variables are Pre-Calculus Mark, Calculus Mark, and Vector Calculus Mark. This study involved 227 students which the students from January 2012 intake. The programmes involved in this study is Chemical Engineering, Civil Engineering, Electrical and Electronic Engineering and Mechanical Engineering. The methods of data analysis used were Pearson's Correlation, ANOVA and t-test. The finding showed that positive moderate relationship between all the variables except relationship between Pre-Calculus Mark and Vector Calculus Mark which it has a weak positive relationship. Meanwhile, the ANOVA shows that the model is significant.

**Keywords:** Mathematics Courses Performance, Pre-Calculus, Calculus, ODE, Vector Calculus, Engineering programmes, ANOVA

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