# Analisis Diskriminan untuk Estimasi Kompetensi Matematika Mahasiswa

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## ABSTRACT

The study was conducted in the Department of Electrical Engineering Education (JPTE) FT UNY, with a sample that was students who attended the Mathematics course in the Department of Electrical Engineering Education FT UNY Academic Year 2021/2022. The purpose of the study is (1) knowing the factors that can be used to estimate the graduation of the final grade of mathematics courses and (2) Making a model of discriminant equation that can estimate the graduation of the final grade of mathematics courses. In other words, Mathematics courses indirectly as a prerequisite for engineering courses on JPTE. Thus, student mathematics competence is the foundation of the science of electrical engineering. Mathematics Competencies Students can be estimated from several factors, including: Student Activity Scores In following the Mathematics ($X1$) course was 0.0985, assignment scores ($X2$) was 0.4437, Semester Examination Scores ($X3$) was 0.6701 and Final Examination Scores of Mathematics Course ($X4$) was 0.7265, student motivation ($X5$) was 0.0079, student interest ($X6$) was 0.0355, and initial ability of mathematics ($X7$) was 0.0919. One of the seven discriminant function models formed was: D1= - 0.06 Present - 0.13 Task - 0.19 Mid Test - 0.25 Final test + 0.02 Motivation - 0.03 Interest + 0.03 Early ability. Based on discriminant analysis with the R program, it will be known the influential factors to estimate the competencies of students in the graduation category eight categories. It information is obtained that the value of canonical correlation (CC) = 0.9757 or 97.57%, which means that the discriminant variable (Y) or competence can be explained by the independent variable (X), which is 97.57%. Based on the results of the analysis of the discriminant function equations, the percentage accuracy of the total truth is obtained: 0.9762 or 97.62%.

Kata Kunci: *discriminant analysis, competence, estimation, mathematics*