FACULTY OF SCIENCE
CHIANG MAI UNIVERSITY

Title : Forecasting Full-Time Equivalent Student (FTES) Data and Faculty Staffing Requirements at the Faculty of Science, Chiang Mai University

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ABSTRACT

The forecasting of Full-Time Equivalent Student (FTES) data and faculty staffing requirements at the Faculty of Science, Chiang Mai University, aims to: 1) Examine the methodology for calculating FTES and develop an FTES computation model using Tableau. 2) Forecast FTES data and faculty staffing requirements at the Faculty of Science, Chiang Mai University, for the academic years 2025–2029, categorized by program type, education level, and department. This study utilizes student enrollment data from the Faculty of Science, Chiang Mai University, spanning ten academic years (2014–2023). The data was obtained from the university's student database system, managed by the Office of the Registrar. For forecasting, the study employs the Google Colab online platform to develop five forecasting models: 1) Moving Average, 2) Double Exponential Smoothing, 3) Exponential Growth Trend Model, 4) Linear Trend Model, 5) Quadratic Trend Model

The findings indicate an upward trend in FTES across all education levels, with the most significant growth observed in undergraduate and master's degree programs. The Department of Physics and Materials Science and the Department of Mathematics exhibit the fastest growth rates. As FTES numbers increase each academic year, faculty staffing requirements are expected to rise accordingly.

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