

**PROPOSED DESIGN OF A FOUR- STOREY COLLEGE OF MEDICINE
BUILDING AT CAVITE STATE UNIVERSITY**

Undergraduate Design Project
Submitted to the Faculty of the
College of Engineering and Information Technology
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree
Bachelor of Science in Civil Engineering

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ABSTRACT

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The study entitled “Proposed Design of a Four-Storey College of Medicine Building at Cavite State University” was conducted at Cavite State University – Main Campus from October 2017 to May 2018.

The general objective of the study was to provide a structural design of a four-storey College of Medicine building at Cavite State University. Specifically, the study aims to provide structural plans of the proposed structure, to provide a structural design and conduct of structural analysis of the structure, to provide electrical and plumbing layout of the structure, and to provide a cost estimate of the project.

The study included architectural and structural plan, electrical and plumbing layout. The architectural plan, structural plan, electrical and plumbing layout were drawn through Computer Aided Drafting Device (CADD). The analysis of structural members was obtained with the aid of Structural Aided Analysis and Design (STAAD) software. Structural plan included the design of the beams, columns, slabs and footings. The structural design of the building was done following the procedures and other requirements as per NSCP 2015 standards and ACI Code. The estimated cost of the proposed design project was P 50,079,452.31 having a cost of P 22,039.70 per square area. Based on the design computation and analysis of the structural members, it can be concluded that all section and materials used were found safe and economical. The design could be used for future implementation.

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