

## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Every student during enrollment has to go through series of steps in order for them to be enrolled. The Faculty and staff of universities always have to evaluate the student's performance to see if they qualify to be enrolled or not. They would also check the subjects the student has already taken and passed in order to determine the possible subjects the student are able to take next semester. Some subjects have prerequisites that need to be satisfied before students are able to enroll in that subject. The status of the student is also one factor to be considered when enrolling. The faculty would take note the status of the student whether they are regular or irregular and consider the number of probations they have. Students who shifted from a different course are now facing more problems in the enrolment process. They have to consider whether all subjects (from their previous course) they took will be credited. There are a lot of factors to be taken into consideration every enrollment of every student of the university.

The original plan was to implement the project to the Engineering and Architecture and College of Nursing Divisions because they are known to have one of the most difficult enrollment processes among all the divisions in the university, but the group adviser advised the proponents to change this scope to the Computer Studies Division because data is more accessible and it is much faster to do. And since there is a current program being used in the Computer Studies Division, that will be the basis of comparison of this project.

In order to automate the evaluation phase, this study would use the Data Mining Approach to find a way to consider all factors in the evaluation phase and produce the same output as the staff manually does. Data Mining would collect (or gather) extensive data which would later be evaluated and analyzed. Data Mining converts gathered data into useful information. Through this approach, the information produced would hasten the enrollment process of the Computer Studies Division of the Ateneo de Davao University.

## **1.2 Problem Statement**

The study will be conducted to investigate the use of Data Mining Approaches in the evaluation of the student's performance during enrollment in the Computer Studies Division. Specifically, the study aims to answer the following questions:

- How does Ateneo de Davao University evaluate the student's performance every enrollment period?
- What are the different factors to be considered every enrollment period?
- What are the differences of Data Mining Approach in other Approaches which were studied by other researchers?
- How will the result of the Data Mining System be tested?

### **1.3 Objectives of the Study**

The study intends to improve the evaluation process of the Universities with the use of Data Mining Techniques, specifically Decision Trees, as the approach. Specifically, it intends to:

- To follow correctly the procedure in evaluation one student.
- To consider each factor important in the evaluation process.
- To know what kind of Data Mining Approach to use for the enrollment and evaluation process.
- To have an exact or better result of the system compared to the manual way of evaluating one student

### **1.4 Significance of the Study**

The most difficult part of the enrollment process is the evaluation phase. Now by using Data Mining Approaches and Automating process this should make extensive data gathering easier since all required information will be encoded prior. It also gives summaries on subjects which has prerequisites thus making enrolling easier for both students and staff.

The output of this study can be initially used by Ateneo de Davao University to better hasten the enrolment of the students every semester. If successfully implemented, other local universities that have the same problem can tailor and use the solution to also upgrade their enrolment system.

### **1.5 Scope and Limitations of the Study**

Ateneo de Davao University has numerous divisions. The number of students varies in different divisions. The aim of this study should tackle the division which encounters the problem more frequently than others. There are also factors to be considered in the curriculum one student follows. The proponents will collect all the subjects the division offers and the prerequisites these subjects require. The proposed system will not generate the schedule for students who have irregular classes. This will lessen the difficulty of this study as it is aimed to assist the evaluation process of Computer Studies Division.