

# SE 216 – SOFTWARE PROJECT MANAGEMENT

## Spring 2023-2024

### Project Proposal



## Lecture-based University Preparation Application (LUPA)

### Problem Definition

The Lecture-based University Preparation Application (LUPA) emerges as a response to the prevalent challenges faced by students within our university community. These challenges encompass uncertainties regarding optimal study durations for various courses, ambiguity surrounding the quality of educators, and a sense of disorientation amid irregularities in the academic calendar. Students often grapple with these issues, leading to heightened levels of stress and anxiety as they navigate their educational journey. Central to the problem is the lack of accessible and organized resources to guide students in optimizing their study efforts, selecting courses aligned with their preferences, and understanding the nuances of the educational landscape. Consequently, students feel ill-equipped to manage their academic workload effectively, leading to suboptimal performance and heightened emotional distress. Recognizing the detrimental impact of these challenges on student well-being and academic outcomes, the development of LUPA aims to address these pressing issues. By leveraging technology and data-driven insights, LUPA seeks to streamline students' educational experiences, providing them with comprehensive information about courses, assessing their academic needs and capabilities, and generating personalized study programs tailored to their individual requirements.

### Background Information

The LUPA project is undertaken as a response to the growing need for a centralized platform that aids the various needs of university students, both new and current. With the ever-increasing complexity of university requirements for students, there is an opportunity to develop an application that helps spread essential information. A significant portion of students face problems each semester related to misconceptions about the requirements of their chosen courses. As a result, students either withdraw from courses that are not suitable for their academic goals or they have to pay more attention to the courses than expected. These questions are not specific for

only freshmen or transfer students even seniors want to know what they have to do in their course or how hard they have to study to pass the lecture. Sometimes these unanswered questions can cause anxiety and therefore reduce the success rate. This application is adequate for students to have some kind of guide for their questions. Hence LUPA aims to address these issues by providing a systematic probabilistic information with the help of Deep Learning which is trained by statistical information of students that have experienced all these department courses. There was no such an application that uses the AI for bringing together the past students and the current ones. Lupa also helps fill the familiarity gap by providing a one-stop solution for students to access course reviews, instructor feedback, campus amenities, and other relevant information.

## **Objectives**

- Improvement of Academic Advising Services:

Target: 90% of newly enrolled students will benefit from academic advising services during the course selection process.

Measurement: The percentage of students who benefit from academic advising services will be regularly monitored and reported.

- Increasing the Transparency of Course Content and Evaluation Criteria:

Target: In 80% of the courses at the University, course content and evaluation criteria will be presented to students in a clear and understandable manner.

Measurement: The content and evaluation criteria of the courses offered in each semester will be documented and analyzed to determine whether the target has been achieved.

- Improving Guidance Services for Students on Course Selection:

Target: 75% of new students will benefit from guidance services during the course selection process and make more informed decisions.

Measurement: Participation rates in guidance services and student feedback will be regularly evaluated to determine whether the target has been achieved.

- Ensuring Fairness Among Courses:

Target: In order to ensure fairness among students with the same score, transparency and standardization will be ensured in the process of determining the evaluation criteria for courses.

Measurement: As a result of comparing the scores and evaluation criteria of different courses, it will be analyzed whether fairness is achieved.

- Increasing Student Satisfaction:

Target: In student satisfaction surveys, it is aimed to reduce negative feedbacks about lack of information on course selection and perception of injustice by 20%.

Measurement: The data obtained through regular student satisfaction surveys will be analyzed to determine whether the target has been achieved.

**Approval Signatures and GitHub Account**  
**SE 216 Section-2**  
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<https://github.com/Lupa4Std>