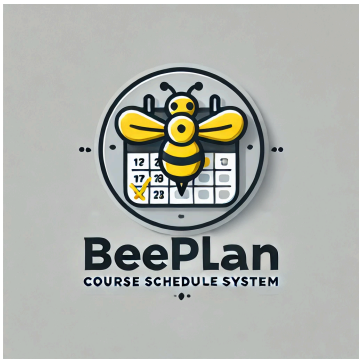

BeePlan: Çankaya University Course Scheduling System

The Çankaya University Course Scheduling System is designed to streamline the scheduling process for courses across all departments, ensuring that programs are efficiently planned for undergraduate classes from the 1st to the 4th year. The system integrates shared scheduling criteria provided by the Student Affairs Office and takes into account faculty availability, external schedules, and other relevant factors.

Functional Requirements

- The schedules for common courses and the criteria to be followed are provided by the Course Scheduling Coordination Office within the Student Affairs Office and distributed to all departments.
- The schedule for each department is created by the department's Course Schedule Coordinator.
- Department Coordinators are responsible for placing curriculum courses in a way that does not conflict with common courses.
- Curriculum courses must include weekly theoretical and practical hours as well as the information about the course instructor.
- When creating the schedule for all classes, the schedules of the course instructors and teaching assistants must not conflict.
- Course instructors may be from outside the department, or even from outside the university. The personal schedules of these external instructors must be taken into account.
- Instructors may give service courses to other departments.
- For courses that include lab hours, the theoretical hours must be scheduled before the practical hours.
- Classrooms can be either labs or regular classrooms. The system will prioritize available classrooms or labs. If no available classroom or lab can be found, the user will be notified.

Criterias

Example:

The scheduling criteria may be adjusted over time. For the Fall 2024/25 semester, the following criteria will apply:

- No courses should be scheduled between 13:20 and 15:10 on Fridays, as this time is reserved for exams of common courses.
- An instructor cannot teach more than 4 hours of theoretical classes in a single day.
- When creating schedules for all classes, the primary consideration should be the curriculum program for 1st, 2nd, 3rd, and 4th-year students, with separate schedules for each year.
- Faculty schedules for both undergraduate and other programs must be considered to avoid conflicts.
- Lab courses should have a maximum of 40 students per session.

Priorities

Example:

- 3rd-year courses should not overlap with elective courses.
- Elective courses in the Computer Engineering and Software Engineering departments should not overlap.
- Lab hours are preferably planned as 2 consecutive hours (optional).
- Curriculum courses can be planned as either 2+1 or 3+0 hours (optional).

Input-Output

Inputs:

- Schedule of common courses
- Restrictions
- Curriculum of each department
- Instructor schedules
- Classroom availability and size

Outputs:

- A conflict-free course schedule for each department and academic year.

Non-Functional Requirements

- **Usability:** The system must be user-friendly, allowing coordinators to manage schedules easily.
- **Performance:** The system should efficiently handle multiple departments and years, identifying real-time scheduling conflicts.
- **Scalability:** The system should support future growth, including the addition of new departments or expanded scheduling rules.