

# **ISTANBUL GEDİK UNIVERSITY**

## **FACULTY OF ENGINEERING**



**INTERDISCIPLINARY DESIGN PROJECT and  
DIPLOMA THESIS / PROJECT**

**APPLICATION DIRECTIVE**

## **Purpose**

**Article 1.** The purpose of this directive is to determine the general principles and basis of "**Interdisciplinary Design Project**" and "**Diploma Thesis / Project**" courses taught in all programs of Istanbul Gedik University Faculty of Engineering.

## **Legal Basis**

**Article 2.** This directive is based on the provisions of "**Diploma awarding conditions**" specified in Article 43 of Istanbul Gedik University Associate, Undergraduate Degree Education and Examination Regulation.

## **Scope**

**Article 3.** This directive; It includes activities related to the "Interdisciplinary Design Project" and "Diploma Thesis / Project" courses taught within the Faculty of Engineering at Istanbul Gedik University.

## **Definitions**

**Article 4.** In this directive;

**MÜDEK:** Association for Evaluation and Accreditation of Engineering Programs,

**Interdisciplinary Project:** It is a project course based on teamwork carried out by students from different education programs on a common subject that covers two or more academic disciplines (programs) -does not belong to only one academic program. They are integrated studies that increase interdisciplinary interaction through joint studies and researches in which knowledge, methods and tools of different disciplines are used together.

**Interdisciplinary Design Project and Diploma Thesis / Project Courses Topic Selection Form (Annex-A1):** The topic selection form for the Interdisciplinary Design Project and Diploma Thesis / Project courses.

**Interdisciplinary Design Project and Diploma Thesis / Project Evaluation Form (Annex -A2):** Form for the Interdisciplinary Design Project and Diploma Thesis / Project course by which each faculty member evaluates the grade for the students.

**Diploma Thesis / Project Jury Common Report (Annex -A3):** It refers to the form in which the overall grade assessment of the student is made and the approval of all jury members are shown regarding success of student.

## **General Principles**

**Article 5.** Students choose two separate courses in their respective curricula: "Interdisciplinary Design Project" and "Diploma Thesis / Project".

**Article 6.** In order for the students to choose "Interdisciplinary Design Project" and "Diploma Thesis / Project" courses, they must have taken all of the courses taught in the 1st, 2nd, 3rd and 4th semesters and accomplished the attendance requirement.

**Article 7.** In the Faculty of Engineering course programs, the " Interdisciplinary Design Project " course is opened in the 7th semester and the "Diploma Thesis / Project" course is opened in the 8th semester. However, students who cannot graduate within the normal time can enroll in " Interdisciplinary Design Project " and "Diploma Thesis / Project" courses in the same semester.

#### **Article 8. Determination of advisor (assignment)**

- a. The approximate number of students who will enroll in the "Interdisciplinary Design Project" and "Diploma Thesis / Project" courses are determined by the Department Heads in a balanced way, taking into account the number of students applying and the course and the load of the relevant faculty members.
- b. Maximum 3 students can take part in the same project in accordance with the scope of the project subject. If the content of the study covers more than one discipline, the number of students can be increased with maximum 2 more students from other disciplines.
- c. It is expected that the "Interdisciplinary Design Project" and "Diploma Thesis / Project" will follow each other. Depending on the scope of the projects and the recommendation of the relevant instructor, the same subject can be divided into two, to continue in the fall and spring semesters.

### **Interdisciplinary Design Project and Diploma Thesis / Project Related Procedures**

#### **Determination of Topics and Distribution to Students**

**Article 9.** The projects to be done within the scope of the related courses are studies that require practice and application and include design. They can be stand-alone system designs or be parts of a large project. Subjects are determined and announced by faculty members / lecturers and Department Heads in a way that will be suitable for "multidisciplinary" studies in which the students can use the knowledge and skills they have acquired in previous courses and create a master design experience that includes engineering standards and realistic constraints and conditions. Department Heads shall allow students to suggest a project topic.

The following criteria are taken into consideration in determining the subjects;

- a. It should give students the ability to work effectively in disciplinary and multi-disciplinary teams, and the ability to work individually.
- b. In researching, examining and finalizing the project subject; In addition to meeting the program outputs of the department, it should also provide solutions to problems such as economic issues, environmental problems, sustainability, producibility, ethics, health and safety.
- c. Among the MÜDEK Program outputs; "Knowledge about the universal and social effects of engineering applications on health, environment and safety and the problems of the age reflected in the field of engineering; awareness of the legal consequences of engineering solutions. " output should be fulfilled.
- d. Among the MÜDEK Program outputs; "Ability to identify, define, formulate, and solve complex engineering problems; for this purpose, the ability to select and apply appropriate analysis and modeling methods" output should be fulfilled.
- e. Among the MÜDEK Program outputs; "The ability to design a complex system, process, device or product under realistic constraints and conditions to meet specific requirements; for this purpose, the ability to apply modern design methods" output should be fulfilled.
- f. Among the MÜDEK Program outputs; "Ability to communicate effectively in Turkish, both orally and in writing; Knowledge of at least one foreign language; the ability to write and understand written reports effectively, to prepare design and production reports, to make effective presentations, to give and receive clear and understandable instructions" output should be fulfilled.

**Article 10.** Students who take the Interdisciplinary Design Project course fill in two copies of the Interdisciplinary Design Project and Diploma Thesis / Project Courses Subject Determination Form (Annex-A1) and submit a copy to the course / thesis supervisor faculty member and the other copy to the Department Head. This process is completed within two weeks from the start of classes according to the academic calendar.

### **Term Studies**

**Article 11.** The student / group whose project subject is determined completes the background information and literature research on the project subject, designs the technical details of the project on paper or in computer environment and prepares a study program by the end of the 4th week at the latest. Students / teams get approval for the applicability of these designs by meeting with their advisors.

Starting from the 4th week until the end of the classes, team members gather every week during the course hours shown in the program - under the supervision of their advisors - and work together on the project and prepare a "Weekly Progress Report" and submit it to their advisors. In-term grades are evaluated by the advisor according to attendance and contribution of the studies to these meetings.

### **Juries and Evaluation**

**Article 12.** The "Interdisciplinary Design Project" and "Diploma Thesis / Project" evaluation juries are selected from among the faculty members in the relevant department. If the project is interdisciplinary, a faculty member from the relevant department can be added to the jury. Evaluations are determined as the arithmetic average of the grades to be determined by the faculty members in the jury under the presidency of the project advisor and the Department Head. Grading is done considering the student's written copy and oral presentation performance. If the student is successful, 5 days are given to make the corrections determined by the jury members in the written text. Students who fail to submit the corrected text at the end of the period are considered unsuccessful regardless of the grade they received. The success of the student is recorded with the evaluation form in Annex-A2 and Annex-A3.

### **Operation**

**Article 13.** This directive takes affect starting from the 2019-2020 academic year Fall semester.

### **Executive**

**Article 14.** This Directive is executed by the Dean of Istanbul Gedik University Faculty of Engineering.