

Objective

Article 1. The purpose of this directive is to determine the general principles and principles in the execution of the "**Design Project**" and "**Graduation Study**" courses taught in all programs within the Faculty of Engineering of Karadeniz Technical University.

Legal Basis

Article 2. This directive is based on the provisions of Articles 27 and 28 of Karadeniz Technical University Associate Degree and Undergraduate Education, Examination, Evaluation and Student Affairs Regulations and the provisions of "**The subject of the graduation study and the evaluation of the graduation study or substitute studies**".

Scope

Article 3. This directive covers the activities related to the "Design Project" and "Graduation Study" courses taught at Karadeniz Technical University, Of Technology Faculty.

Definitions

Article 4. In this directive;

MÜDEK Association for Evaluation and Accreditation of Engineering Education Programs,

Preference Application Form (B1): The form that students enrolled in the Design Project course must fill out for advisor selection via the web or by obtaining it from the relevant Department Head,

Design Project Topic Determination and Evaluation Form (K1): The form in which the subject of the Design Project is determined and on which the student's grade evaluation is made.

Graduation Study Topic Determination and Evaluation Form (K2): The form on which the topic of the Graduation Study is determined and the student's grade evaluation is made.

refers to.

General Principles

Article 5. In Of Technology Faculty curriculum, "Design Project" course is offered in the 7th semester and "Graduation Study" course is offered in the 8th semester. However, students who cannot graduate in normal time can enroll in **Design Project** and **Graduation Study** courses in the same semester.

Article 6. In order for a student to enroll in the Design Project course, he/she must be successful in all courses taught in semesters 1, 2, 3 and 4.

Article 7. In the Design Project and Graduation Study courses, if more than one student is assigned to a project, each student is evaluated and graded separately.

In the Design Project and Graduation Study courses; it is aimed to provide students with the ability to design, implement, practice and work together in solving engineering problems.

Article 9. Identification (appointment) of advisors

- a. The approximate number of students who will apply for the Design Project and Graduation Study courses is determined by the Department Heads. These numbers are divided by the number of faculty members and the number of students per faculty member is determined. Taking into account the preferences of the students, project advisors are assigned to the project advisors as much as the previously determined quota. This process must be completed during the add-drop week.
- b. Each faculty member has to take as many students as the number of students assigned to him/her. Depending on the size of the project, between 1 and 5 students can take part in the same project.
- c. Design Project and Graduation Study courses are carried out by the same faculty member in the form of project (Design Project) and application (Graduation Study) following each other in line with the request of the students and the advisor.
- d. In Design Project and Graduation Study courses, students are encouraged to get support from institutions (TÜBİTAK, TTSO) by writing projects.

Principles Related to Design Project

Determination of Subjects and Distribution to Students

Article 10. The projects to be carried out within the scope of the Design Project course require practical and applied work and can be either a stand-alone system design or a part of a large project in practice. The topics are determined and announced by the lecturers/assistants and the Department Heads in a way to be suitable for "multidisciplinary" studies, to create a main design experience in which students can use the knowledge and skills they have acquired in previous courses, to include engineering standards and realistic constraints and conditions. Department Heads should enable students to propose a project topic.

The following criteria are taken into account in determining the topics;

- a. Students should gain the ability to work effectively in disciplinary and multidisciplinary teams and the ability to work individually.
- b. Prioritize areas that meet the needs of the country and the region.
- c. In the research, examination and finalization of the project topic; In addition to meeting the program outcomes of the Department, it should also bring solutions to problems such as economic issues, environmental issues, sustainability, manufacturability, ethics, health and safety.

- d. MUDEK Program Outcomes; "Knowledge about the effects of engineering practices on health, environment and safety in universal and social dimensions and the problems of the age reflected in the field of engineering; awareness of the legal consequences of engineering solutions."
- e. MUDEK Program Outcomes; "Ability to identify, define, formulate and solve complex engineering problems; ability to select and apply appropriate analysis and modeling methods for this purpose".
- f. From MÜDEK Program Outcomes; "Ability to design a complex system, process, device or product under realistic constraints and conditions to meet specific requirements; ability to apply modern design methods for this purpose." The output must be met.
- g. MUDEK Program Outcomes; "Ability to communicate effectively both orally and in writing in Turkish; knowledge of at least one foreign language; ability to write effective reports and understand written reports, to prepare design and production reports, to make effective presentations, to give and receive clear and understandable instructions.

Article 11. Advisors fill out the Design Project Topic Determination and Evaluation Form (K1) and submit it to the Department Head. This process is completed within two weeks from the start of the courses according to the academic calendar.

Semester Work

Article 12. The student/group, whose project topic is determined, designs and projects the technical details of the project on paper or in computer environment and draws up a work program by the end of the 4th week at the latest. Students/groups meet with their advisors and get approval for the applicability of these designs.

Starting from the fourth week until the end of the courses, the group members meet every week at the class time shown in the program - under the supervision of their advisors - and work together on the project, prepare a "Weekly Progress Report" and present it to their advisors. At these meetings, the advisor evaluates the attendance and contribution to the work and evaluates the semester work grades.

Final Exam

Article 13. Each student or group presents and defends their work to their advisor. Questions about the work may be asked at the end of the presentation. Taking into account the presentation and defense performance, the final exam grade is also given according to the specified criteria. In the final evaluation, the Design Project letter grade is awarded by taking the weighted average of the semester work and final exam grades.

Guidelines for Graduation Study

Application

Article 14. Students enrolled in the Graduation Study course fill in the Graduation Study Subject Determination and Evaluation Form (K2) to be obtained from the Department Head and submit it to the Department Head within the first week of the semester. These forms are examined and the groups, subjects and managers of the students taking the Graduation Study course are announced by the end of the second week.

Article 15. The student or students can continue the Graduation Study course with the same faculty member or members by practicing or continuing the project they did in the Design Project, or they can choose a new topic. There may be changes in student groups in ongoing projects.

Article 16. The Graduation Study is submitted to the Head of the relevant Department in three copies, with the text parts written by computer on A4 form paper and the annexes prepared and filed in accordance with standard dimensions. Students who fail to complete and submit the Graduation Study within this period are considered unsuccessful in that semester's Graduation Study course and are required to re-enroll in this course in the first semester of the following academic year.

Juries and Evaluation

Article 17. Graduation Study Course Evaluation Juries are determined by the Head of the Department among the faculty members working in the departments - taking into account the recommendations of the advisor - in the third week of the relevant semester and finalized by the Faculty Administrative Board. The director is a natural member of the jury consisting of three original and two substitute members. The jury president is the member with the most senior academic title. In other cases, the director of the Graduation Study is the jury president. If deemed necessary, a jury may be invited from other departments within the Faculty. This situation is notified to the advisor jury member with the request of the head of the department and the approval of the dean's office at the latest in the third week of the relevant semester.

Article 18. The department chairmanship invites external stakeholders as jury members in each evaluation period. These members can express their opinions about the study but cannot participate in the grade evaluation.

Article 19. The Head of the Department sends the graduation work to the jury members within three days following the submission date. The jury members evaluate the work separately and the average of the grades given by the jury members must be at least (CC) for the work to be accepted. Students whose work is deemed unsuccessful on the grounds of correction of deficiencies and mistakes, complete their projects in the first semester following the current semester and submit them again.

Students whose Graduation Studies are accepted present and defend these studies orally in front of the jury members and the audience on a day, time and place to be determined by the Head of the Department during the exam period or within the first week following this period. The

oral presentation and defense takes a maximum of 25 minutes.

The jury makes an oral presentation and defense by showing the success grade of each student in writing on the Graduation Study Subject Determination and Evaluation Form (K2). In order for the work accepted as a result of the oral presentation and defense to be considered successful, the average of the grades given by the jury members for the oral presentation and defense must be at least (CC), and the manager and another jury

member must also have given at least (CC). The success grade of the Graduation Study course is the arithmetic average of the study grade and the presentation and defense grade. Students who fail in the oral presentation and defense can take the presentation and defense exam on the same subject again in the make-up exam periods.

Enforcement

Article 20. This Directive will be applied as of Fall Semester 2015-2016.

Execution

Article 21. This Directive is executed by the Dean's Office of Of Technology Faculty.