



Graduate School of Sciences & Engineering
Department of Electrical & Electronics Engineering

Ph.D. Qualifying Examination Guidelines

This document describes the guidelines for the PhD qualifying examination process to be followed by the PhD candidates admitted to the Department of Electrical & Electronics Engineering at Koç University.

A. Exam Timeline and Application Deadlines

The PhD Qualifying Exam is administered twice a year in the Fall and Spring semesters. The PhD Qualifying Exam consists of a Written Exam and an Oral Exam.

The PhD Qualifying Written Exam is administered during the **seventh week** (tentative) of each semester, whereas the PhD Qualifying Oral Exams are carried out during the **tenth week** (tentative) of each semester.

Ph.D. candidates who would like to take the qualifying exam should apply to the GSSE by sending an email to hdemirtas@ku.edu.tr before the end of the **first week** of the semester in which they want to take the exam.

Ph.D. candidates who have enrolled in the Ph.D. program after a BS or MS degree are required to attempt the Ph.D. qualifying exam by the end of their 7th (BS) or 5th semester (MS) in the Ph.D. program, respectively.

There is no course, credit, or GPA requirement to take the PhD qualifying exam.

Students must pass the qualifying exam in at most two attempts, as detailed below.

B. Koç EE PhD Qualifying Examination Format

The Koç EE PhD Qualifying Exam consists of two parts: The **Written Exam** and the **Oral Exam**.

For the PhD Qualifying Written Exam, each PhD candidate will be responsible for answering **5 out of 10** questions from the following list of topical areas with the questions collected from the corresponding professors:

- Signals and Systems
- Circuit Theory
- Digital Systems Design
- Electromagnetic Theory
- Probability and Random Variables
- Digital Signal Processing
- Systems and Control
- Microelectronic Devices & Circuits
- Analog and Digital Communications
- Waves and Optics

It is worth noting that these **topical areas** should be taken as references instead of individual ELEC courses. The students will be given a written exam composed of **10** questions and asked to answer **5** of them. The duration of the exam is **180 minutes**. The potential list of topics for the questions will be shared by the students.

For the PhD Qualifier Oral Exam, each PhD Candidate is expected to answer free style questions asked by the Oral Examination Committee members.

C. Grading and Results

The following are rules regarding the process, grading and results of the Koç EE PhD Qualifying Exam:

- The passing score for the overall PhD Qualifying Exam is **70 (out of 100)**, the weighted average of the written and oral exam scores.
- Written exam results are announced within one week after the examination.
- If the minimum score from **both** written and oral exams is at least 50 AND the overall qualifying exam score is between 60 and 70, the student **may pass** with a written recommendation letter from the advisor to the GSSE. In such a case, a student might be required to take additional courses to improve his/her background subject to the recommendation of the PhD examination committee.
- In all other cases, the PhD candidate fails the PhD qualifying examination. Then, the candidate either **retakes** the minimum score exam or both, subject to the recommendation of the PhD examination committee.
- If the PhD candidate fails the exam in the first attempt, then s/he must repeat the written and/or oral exam in the following semester.

Ph.D. candidates who fail the qualifier exam **two times** are subject to [KU Graduate Student Scholarship Regulations](#).

For any inquiries regarding the Ph.D. qualifying examination process, please email the GSSE – ELEC Coordinator (Dr. Ertuğrul Başar [ebasar@ku.edu.tr]).