



Graduate School of Sciences & Engineering  
Department of Electrical & Electronics Engineering  
**PhD 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.

PhD candidates, who would like to take the qualifying exam, should apply to the GSSE by sending an email to [hdemirtas@ku.edu.tr](mailto:hdemirtas@ku.edu.tr) before the end of the **first week** of the semester in which they want to take the exam.

PhD candidates, who have enrolled in the PhD program after a BS or MS degree, are required to attempt the PhD qualifying exam latest **by the end of their 7<sup>th</sup> (BS) or 5<sup>th</sup> semester (MS)** in the PhD 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 **6 out of 11** questions from the following list of topical areas:

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

The students will be given a written exam composed of **11** questions and asked to answer **6** of them. The duration of the exam is **180 minutes**.

**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 weights of the **PhD Qualifying Written Exam** and **PhD Qualifying Oral Exam** on the **overall qualifying exam score** are **70%** and **30%**, respectively.
- The passing score for the overall PhD Qualifying Exam is **70 (out of 100)**, which is the weighted average of the written and oral exam scores.
- Written exam results are announced within one week after the examination.
- If the minimum scores from **both** written and oral exams are **at least 50 AND the overall qualifying exam score (weighted average of the written and oral exam scores) is higher than 70**, then the PhD candidate **passes** the qualifying exam.
- If the minimum score from **both** written and oral exams are **at least 50 AND the overall qualifying exam score is between 60 and 70**, student **may pass** with a written recommendation letter from the advisor to the GSSE. In such a case, 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, 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.

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

For any inquires regarding the PhD qualifying examination process, please send an email to GSSE – ELEC Coordinator ( Dr. Ertuğrul Başar [ [ebasar@ku.edu.tr](mailto:ebasar@ku.edu.tr) ] ).