

Fen Bilimleri Enstitüsü
Fen Bilimleri Eğitimi Ana Bilim Dalı
Doktora Yeterlik Sınavı Yönergesi

Fen Bilimleri Eğitimi Anabilim Dalı Doktora Yeterlik Sınavı güz dönemlerinde Kasım ayında, bahar dönemlerinde ise Mayıs ayında yapılır. Fen Bilimleri Eğitimi Anabilim Dalı Doktora Programı öğrencilerinden 2020-2021 sonbahar döneminden itibaren Doktora Yeterlik Sınavına girecek öğrencilerin bölüm başkanlığına;

1. Güz ve Bahar dönemlerinde ders ekle-bırak günlerinin son gününe kadar Doktora Yeterlik Sınavına başvuru dilekçelerini
2. Fotoğraflı özgeçmişlerini
3. Transkriptlerini

teslim etmeleri gerekmektedir.

MIDDLE EAST TECHNICAL UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
SCIENCE EDUCATION DOCTORAL PROGRAM

DOCTORAL COMPREHENSIVE EXAMINATION

The purpose of the comprehensive exam is to provide evidence of doctoral students' skills in conducting independent research and their understanding of major concepts and issues in the field. The exam consists of three major components.

1. Written Examination A – Literature Review (30%)

Purpose: to determine the creative potential of the candidates to pursue doctoral research, to determine the candidates' ability to apply fundamental concepts into a literature review.

- The candidate is expected to construct a literature review based on a problem that she/he will choose.
- The selected topic should not come from the candidate's masters' thesis, but it can be a topic/problem that the candidate may want to pursue in the doctoral dissertation. She/He cannot use the assignments/projects from previous courses or previous comprehensive exam.
- Turnitin will be used for candidates' literature review to evaluate their originality. If the similarity score is less than 20% (excluding small matches of 3 words, quotations, and the references), the submitted paper will be considered as acceptable. The candidate can see originality report immediately after submitting the review and may resubmit it until the due date.
- The literature review should comply with APA style (either 6th or 7th editions), by using double space and 12 pts Times New Roman font. The report can be up to 20 pages (excluding references and appendices).
- The due date of the report is on the day of the written examination. It should be submitted to corresponding link determined by the doctoral comprehensive board of the department. The supervisors of the candidates will send the review to the examination committee if the similarity score is less than 20%.

2. Written Examination B – In-class examination (70%)

Purpose: to assess the candidates' research skills and their understanding of the field.

Areas covered in the exam:

- Research and Statistics (quantitative research, qualitative research, and their data analyses) (25-35%)*
- Major Area (general science education, physics education, chemistry education, biology education) – A reading list will be announced by the department (25%)
- General science, physics, chemistry, or biology – Covers fundamental topics in related science (10-20%)*

3. Oral Examination

Purpose: to observe the candidates' ability to engage in a professional talk and respond to questions and comments about the issues in the field.

- The oral examination comprises the topics of the written examinations as well as the other relevant topics determined by the examination committee.

EVALUATION CRITERIA

Based on the evidence from doctoral comprehensive examination, it is the responsibility of the examination committee to determine whether or not the doctoral student is qualified and ready to conduct dissertation research and to proceed toward the doctoral degree. The committee may also

*The percentages will be finalized by each major area and announced before written examination A.

require candidates to take additional courses based on their performance in the oral and written examinations. During the evaluation process, the following criteria must be fulfilled;

- The minimum required point in the written examinations (totals of written examinations A and B) is 65 (out of 100). Students who score below 65 (out of 100) are considered as unsuccessful. Thus, they are not allowed to take the oral examination.
- The minimum required point in the oral examination is 65 (out of 100).