المملكة العربية السعودية
وزارة التعليم
جامعة الملك فيصل
(٠٣٧)

PhD Mathematics Program – Entry Exam Overview

Exam Objectives

The PhD Entry Exam is designed to evaluate applicants' understanding of core mathematical concepts and their ability to apply them through analytical reasoning and problem-solving. The primary goals are:

* To assess mastery of undergraduate and foundational graduate-level mathematics.

* To measure candidates' problem-solving proficiency.

* To evaluate logical reasoning and mathematical maturity.

Exam Format

Type: Written exam

Format: Written and Multiple-Choice Questions

Language: English

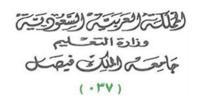**Duration: 3 Hours**

Date: October 12, 2025

Time: 4:00 PM

Exam Location

Male Candidates: College of Science – Building 09

Female Candidates: College of Science – College of Science Building 47

الرقم:
التاريخ:
المرفقات:
www.kfu.edu.sa

Kingdom of Saudi Arabia P.O.Box 400 Al-Hassa – 31982 Tel: 0135800000 Fax: 0135816980   المملكة العربية السعودية ص . ب ٤٠٠ الأحساء - ٣١٩٨٢ الهاتف : ٠١٣٥٨٠٠٠٠٠ فاكس : ٠١٣٥٨١٦٩٨٠

مطابع جامعة الملك فيصل 5024

Subjects Covered

- **Real Analysis**

- **Complex Analysis**

- **Algebra**

- **Ordinary Differential Equations (ODEs)**

- **Numerical Analysis**

Recommended References

Conway, J. B. *Functions of one complex variable I* (2nd ed.). Springer. (Chapters 1 to 6)

Rudin, W. *Principles of mathematical analysis* (3rd ed.). McGraw-Hill.

Burden, R. L., & Faires, J. D. *Numerical analysis* (9th ed.). Brooks/Cole, Cengage Learning. (Chapters 1-9, 11).

Coddington, E. A., & Levinson, N. *Theory of ordinary differential equations*. Krieger Publishing Company. (Chapters 1, 2, 3, 4, 6, 8, 13, 14, and 16)

Judson, T. W. (2012). *Abstract algebra: Theory and applications*. Open Source. (All chapters except 7,8,19-23)

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