



Yarmouk University

Faculty of Educational Sciences

PhD in Mathematics Curriculum and Instruction

Program Overview

The PhD program in Mathematics Curriculum and Instruction aims to prepare specialized researchers and academics capable of developing and designing advanced and effective mathematics curricula. The program focuses on enhancing students' theoretical and practical knowledge, and developing their skills in using modern instruction and technology in mathematics education. Through advanced coursework, which includes curriculum theory, advanced instruction, and the use of technology in education, the program seeks to improve the quality of mathematics education. Upon graduation, students can work in academic settings, curriculum design, teaching, and educational consulting, thereby contributing to the improvement of education in the community.

Program Vision

At both the local and Arab levels, we excel in training specialized leaders in mathematics curricula, teaching, and learning, along with producing top-notch experts in scientific research in the field of mathematics education.

Program Mission

Providing a successful environment for high-quality learning in mathematics curricula and teaching, and enhancing the professional development of mathematics teachers to meet the standards of performance quality in education. This includes integrating cognitive, professional, and ethical aspects, as well as offering opportunities for conducting scientific research in the field of mathematics education.

Program Objectives

The PhD program in Mathematics Curriculum and Instruction has the following objectives:

- Provide deep knowledge that qualifies graduates to succeed in local, regional, and global environments characterized by challenge, competition, and technological advancement.
- Enhance the professional development of graduates and strengthen their educational leadership competencies for career opportunities in mathematics education.
- Develop graduates' inquiry skills based on research and educational practices.
- Enhance graduates' competencies in designing effective mathematics curricula, considering the quality of mathematics education that meets the requirements of the 21st century.
- Provide opportunities for graduates to adhere to the ethics of scientific research.
- Develop a balanced knowledge base in the field of mathematics pedagogy for graduates.
- Prepare faculty members for local and Arab colleges and universities, educational leaders, and researchers in the field of mathematics education.

Program Outcomes

Upon completing the PhD program in Mathematics Curriculum and Instruction, the student is expected to be able to:

- Engage in research activities that benefit the mathematics community.
- Observe and distinguish the role of different cultures in the development of mathematics.
- Practice advanced mathematical thinking skills and apply analytical skills to solve and model mathematical problems.
- Use various effective educational technologies in teaching mathematics.
- Integrate mathematical knowledge with mathematics pedagogy.
- Analyze performances in mathematics in cognitive, affective, and metacognitive domains.
- Apply appropriate research methodologies, analyze data, and draw conclusions for research issues in the field of mathematics.
- Gain expertise in conducting research through databases, writing, and presenting ideas in seminars, or defending a doctoral dissertation.

Program Importance

The PhD program in Mathematics Curriculum and Instruction plays a vital role in improving the quality of education by preparing specialists capable of designing innovative curricula and using advanced instruction. The program enhances students' abilities to conduct advanced scientific research that contributes to knowledge development and offers new solutions to challenges in mathematics education. Additionally, it meets the needs of schools and universities for specialized personnel, thereby enhancing academic education standards in the community. Moreover, the program supports the integration of modern technology in mathematics education, promoting student interaction and understanding, making the teaching process more effective and engaging.

Targeted Groups and Accepted Majors

To be admitted to this program, the applicant must:

1. Meet the requirements set out by the Higher Education Council.
2. Hold a bachelor's or master's degree in a subject that qualifies them for specialized study in the department they wish to join, according to the department's criteria.
3. Hold a bachelor's degree in mathematics, statistics, or mathematics education.

4. Hold a Master's degree in Mathematics Curricula and Instruction, Mathematics, or Statistics.
5. Pass the required language proficiency test for admission to the program, as determined by the Higher Education Council.
6. Fulfill any other conditions set by the relevant committees and councils.

Job Areas

The PhD program in Mathematics Curriculum and Instruction provides graduates with employment opportunities in various fields, including:

- Faculty member at universities and institutes.
- Employment in ministries of education and educational institutions.
- Developer and designer of mathematics curricula for different educational levels.

Credit Hours and Tuition Fees

The program requires students to successfully complete (54) credit hours.

The cost per credit hour is:

For Jordanian students is 100 Jordanian dinars.

For non-Jordanian students is 350 US dollars.

Study Plan Overview

The program requires students to complete (36) credit hours from courses at the doctoral level (700 level), in addition to any additional courses deemed necessary by the department that were not covered in the student's previous studies. Additionally, students are required to pass a comprehensive examination after completing the courses.

Furthermore, students are required to register for the thesis, comprising (18) credit hours, during which they conduct field research, prepare the thesis, and successfully defend it. Before defending their thesis, students must also pass the acceptance for publication of a research paper in one of the university's peer-reviewed and approved journals, derived from their theses.

Contact Information

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