



Al-Warith Al-Anbiya University
Scientific Plan of the College of Science
(Medical Physics Department – Forensic
Evidence Department)
Academic Year 2025–2026


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This scientific plan aims to enhance academic excellence and applied research in the fields of medical and forensic sciences, promote interdisciplinary learning, and strengthen collaboration between academia and health and judicial institutions. It seeks to prepare graduates capable of keeping pace with scientific and technological advancements and contributing effectively to community service.

A. Vision

To establish an advanced scientific environment that integrates rigorous academic education with applied scientific research in medical physics and forensic sciences, in order to prepare qualified scientific professionals who contribute to the development of the health and justice sectors.

B. Strategic Objectives

- Promote a culture of scientific research and innovation in medical and forensic sciences.
- Support interdisciplinary education linking physics, medicine, and forensic science.
- Strengthen collaboration with hospitals, judicial institutions, and research centers.
- Develop scientific solutions that enhance medical diagnosis and support the administration of criminal justice.
- Employ modern technologies such as artificial intelligence, data analytics, and medical imaging.

C. Core Pillars

1. Academic Excellence and Curriculum Development

Flexible Curricula: Introduce and integrate modern courses such as:

- Medical Radiation Physics
- Medical Imaging
- Digital Forensic Analysis
- Biophysics
- Artificial Intelligence in Medical Diagnosis



Blended Learning: Integrate e-learning methodologies with laboratory and clinical training.

Applied Graduation Projects: Implement collaborative projects in partnership with hospitals and forensic departments.

2. Scientific Research and Development

Establishment of Specialized Laboratories:

- Radiation Measurement Laboratory
- Medical Imaging Laboratory
- Forensic Evidence and DNA Analysis Laboratory
- Materials and Trace Evidence Analysis Laboratory

Support for Student Research Projects in:

- Radiation Therapy
- Early Disease Detection
- Forensic Evidence Analysis

Formation of Interdisciplinary Research Teams:

Joint research initiatives between physics, medicine, and forensic sciences.

3. Partnership with the Health and Justice Sectors

- Engage experts from hospitals, forensic medicine departments, and forensic evidence institutions in curriculum development.
 - Provide field training programs in hospitals, radiology centers, and forensic laboratories.
 - Establish an applied scientific center within the university to provide consultancy services.
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4. Scientific Innovation and Research Leadership

- Support the development of low-cost medical devices.
 - Encourage innovation in digital and biological evidence analysis technologies.
 - Promote the registration of scientific patents.
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5. Sustainability and Social Responsibility

- Promote a culture of radiation safety.
 - Organize public health and community awareness campaigns.
 - Support projects aligned with the Sustainable Development Goals (SDGs) in health and justice.
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6. Professional Skills and Holistic Development

- Train students in medical and forensic professional ethics.
 - Develop competencies in scientific and forensic report writing.
 - Strengthen scientific analytical skills and decision-making abilities.
 - Implement academic exchange programs with universities and research centers.
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D. Evaluation and Performance Indicators

1. Student Achievements

- Employment of graduates in health and judicial institutions.
- Increase in applied research projects.

2. Research Outputs

- Publication of research articles in peer-reviewed scientific journals.
- Acquisition of competitive research grants.

3. Societal Impact

- Improvement of medical diagnostic services.
- Support for scientifically grounded criminal investigations.



4. International Collaboration

- Establish partnerships with international universities and research centers.

Conclusion

Through the implementation of this plan, the College of Science will become a specialized scientific center in medical physics and forensic evidence sciences, capable of preparing qualified scientific professionals who contribute to the advancement of the health sector, the achievement of justice, and the service of society.



Approved by the Dean of the College of Science

Assoc. Prof. Dr. Shaymaa Hussein Nowfal

