Master of Biomedical Sciences (MBS)

The Ministry of Education (MOE) approved two-year Graduate Program which is open to both male and female students, Saudi and non-Saudi, allows students to choose to join one of six tracks. All tracks are Thesis Option.

- *Analytical Biochemistry:* The program aim is to provide graduates with an understanding of fundamental biological processes at a molecular level; it also contributes to solving of medical problems and drug discovery and disease curing.
- *Biotechnology:* The program includes courses dealing with the advanced techniques of molecular biology, genetic engineering, applications of nanotechnology, and special topics such as nanomedicine and its applications in disease diagnosis, drug formulation, and drug delivery.
- *Clinical Anatomy:* The program is focused on the study of gross anatomy, histology, neuroanatomy, and embryology. It deals with the clinical application of anatomical disciplines. The program offers a broad range of fundamental courses including techniques of molecular biology, biostatics, and research methodology. It is also research intensive and provides several basic science laboratory exercises as well as practical research experience in molecular biology, cell biology and medical education.
- *Clinical Embryology & Reproductive Biology:* Graduates will be prepared to meet the rising need in the Kingdom of Saudi Arabia and the Gulf region for qualified and well-trained assisted reproductive technology (ART) professionals. Certified by Saudi Commission for Health Specialties (SCHS)
- *Infection Control:* Graduates from this program which meets international standards will have achieved the competencies for developing and leading infection prevention programs in healthcare facilities. Certified by Saudi Commission for Health Specialties (SCHS)
- *Laboratory Quality Management:* Graduate students are introduced to medical laboratory quality management along with research methods and presentation skills. This program includes a research thesis and focuses on the principles of quality management systems and their applications in a clinical laboratory. Likewise, it prepares medical technologists for the management of a clinical laboratory.
- *Molecular & Cell Biology:* The Graduate Program offers a unique environment of higher education that integrates the research and training capabilities at KFSHRC and Alfaisal University in a distinctive modern educational setting. Potential careers for graduates include the expanding market in molecular medicine, biotechnology, and biomedical research.
- *Thrombosis & Hemostasis:* This track introduces basic science concepts in thrombosis and haemostasis, while also reinforcing principles of research and presentation skills. It focuses on principles of coagulation system, biochemistry, basic genetics, laboratory testing and drugs monitoring for bleeding and anticoagulation. It also examines quality management systems and their applications in laboratory testing
- *Transfusion Medicine & Stem Cells:* This program focusses on principles of transfusion medicine, red blood cell biochemistry, basic genetics, stem cells transplantation and biology. It involves an introduction to quality management systems and their applications in the blood transfusion process. In addition, the program aims to strengthen the principles of research and presentation skills (oral and written presentation skills), as well as to improve the clinical practice.
- *Nanomedicine & Nanodiagnostics:* The program is materials-oriented with emphasis in materials chemistry, micro-electronics, photonics, and their biomedical and energy applications.
- *Cancer Nanoscience:* The program is materials-oriented with emphasis in materials chemistry, micro-electronics, photonics, and their biomedical and energy applications.
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