

# Master of Information Systems in Health Management

كلية العلوم والهندسة  
College of Science & Engineering  
جامعة حمد بن خليفة  
HAMAD BIN KHALIFA UNIVERSITY



# Master of Information Systems in Health Management

The Master of Information Systems in Health Management (MIS HM) is a unique program designed to prepare students for professional roles in the design and management of information systems and services in healthcare organizations.

While Qatar has already started the digitization of health records and implementation of digital-based data collection and storage systems, there is limited access to expertise in the implementation and management of such health information systems. The Master of Science in Information Systems for Health Management addresses the shortage of skilled resources with expertise in health information systems, which is urgently required, as highlighted in the National E-Health and Data Management Strategy commissioned by the Ministry of Public Health in 2015.

Graduates of this program will be able to pursue a variety of career paths in different healthcare settings, including hospitals, clinics, primary care facilities, national health services, physician offices, insurance providers, long-term care organizations, pharmacies, IT companies, industries linked to health information and management functions, health information and research centers.

## Program focus

The Master of Information Systems in Health Management emphasizes teaching principles and methodologies of information system management, health informatics, health record systems, and health data management.

The program develops students' technical and managerial skills to organize and implement information-based healthcare systems. Through active collaboration with healthcare sectors and government ministries in Qatar, the program will provide industry-based projects and internships to students.

## Graduates of this program are equipped to:

- ▶ demonstrate advanced knowledge of the technological infrastructure needed to deploy healthcare solutions including quality of services, privacy, and security aspects.
- ▶ assess the information technology resources needed to deploy healthcare solutions, that meet the needs of the local community.
- ▶ analyze, design, implement, and test technical solutions that include database and data communication components.
- ▶ evaluate the performance of technical solutions to guarantee the delivery of services over time.
- ▶ manage technical solutions given local constraints, organizational context, and policies relating to health.

## Curriculum

**A 33-credit program taught over two years that includes:**

- ▶ Four core courses (12 credits)
  - ▶ Information Technology Project Management
  - ▶ Information Systems Analysis and Design
  - ▶ Information Systems Management
  - ▶ Healthcare Information Systems
- ▶ Five elective courses (15 credits), covering the fundamentals of storing, accessing, processing, and protecting health information that will help students to apply effective data integration and implementation – such as advanced data management systems, security risk analysis, biostatistics and bioinformatics, principles of health informatics, data science tools and applications, interaction design for healthcare, computer and network security, network forensics, data warehousing, security of clinical information systems, enterprise systems, and decision analysis and decision support systems.
- ▶ Industrial project (6 credits), offers a route for students to further develop real-world, practical problem-solving experience.
- ▶ One graduate research seminar.

## Admission and application requirements

Applicants seeking admission to the Master of Information Systems in Health Management program at HBKU should have a strong academic record (minimum 3.0 GPA out of 4.0) from a recognized university. They should have a bachelor's degree, and must have also majored in one of the following disciplines: Computer science, information systems, electrical engineering, mathematics, statistics or related fields. Applicants from health and medical fields may be considered provided they have some knowledge of computer programming and relevant work experience.

Applicants are required to submit an IELTS score of 6.5 or TOEFL score of 79 to demonstrate their proficiency in English.

Further details about the language proficiency requirement and the process to seek exemption (where this is an option) are available at [admissions.hbku.edu.qa](https://admissions.hbku.edu.qa).

While the GRE is not required for admission to the master's programs at the College of Science and Engineering, a strong GRE score will help strengthen the applicant's admission material. Prior research experience will be seen as favorable.

Further information about admission requirements is available: [admissions.hbku.edu.qa](https://admissions.hbku.edu.qa)

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## Application requirements

A completed online application form:

[admissions.hbku.edu.qa](https://admissions.hbku.edu.qa)

### Academic transcripts

Official electronic copies of transcripts should be submitted as part of the online application. Final transcripts and graduation statements are required for all previous university studies. All transcripts submitted should include an explanation of the grading system. For those who have not completed their current studies, transcripts must include results from the last completed semester of coursework. Transcripts in languages other than English or Arabic must be accompanied by an official translation. Applicants who are admitted to the program based on copies of or incomplete transcripts will be required to provide original transcripts upon enrollment in order to register for courses.

### Standardized test results

Official copies (where required) must be sent directly to HBKU. Please refer to the institutional codes below:

- ▶ GRE: 7551
- ▶ GMAT: H6S
- ▶ TOEFL: 4981
- ▶ IELTS: No code required. Students should ask the IELTS center where they tested to send the IELTS TRF to Hamad Bin Khalifa University.

Applicants should also submit copies of their test scores with the online application.

### Letters of recommendation

Applicants should submit two letters of recommendation, one of which must be from an academic referee. Applicants should include their referees' names and email addresses in the online application. Referees will receive an email requesting them to complete their references.

### Personal statement of interest

Applicants should submit a personal statement (300-500 words) as part of the online application. The statement should explain why the candidate is applying to the program, and how their studies will contribute to the achievement of their personal objectives, including information about the applicant's research interests and achievements. Personal statements that are incomplete or below the minimum word count will not be accepted.

### Resume/Curriculum vitae

Applicants should submit a copy of their current resume or curriculum vitae as part of the online application.

This should include the following information:

- ▶ Academic qualifications
- ▶ Professional experience
- ▶ Publications
- ▶ Research projects
- ▶ Academic awards or honors
- ▶ Conference presentations

### Identification document

All applicants should submit an electronic copy of their passport as part of the online application. Nationals and residents of Qatar should also submit their valid Qatari ID.