

# HEALTH MANAGEMENT, MASTER OF DATA ANALYTICS

The Master of Data Analytics in Health Management (MDA-HM) program is the first of its kind in the world and aims to train talented scientists and researchers to effectively contribute to the design and implementation of data analytic tools in health care systems in Qatar and beyond. The HBKU MDA-HM program aims to equip students with knowledge of the latest advances in the tools and principles of big data handling and analysis and their application in managing the ever-growing health data.

For more information, click here (<https://www.hbku.edu.qa/en/cse/md-analytics-health-management/>).

## Requirements

Minimum hours required to complete program 33 CH

Code	Title	Hours
<b>Core Courses</b>		
ICT 660	Principles of Health Informatics	3
ICT 665	Artificial Intelligence and Machine Learning in Healthcare	3
ICT 666	Computational Bioinformatics	3
GPM 601	Research Methods and Ethics in Health and Genomics	3
Subtotal		12
<b>Elective Courses</b>		
Select four of the following:		12
Free elective: Students can take one course from any HBKU program		
CSE 602	Statistics for Science and Engineering	
CSEG 710	Advanced Algorithms and Data Structures	
DSEG 660	Applied Deep Learning	
DSEG 733	Advanced Data Management System	
DSEG 735	Learning from Data	
DSEG 760	Machine Learning	
ICT 620	Computer Graphics	
ICT 668	Medical Image Processing	
ICT 671	Information Systems Management	
ICT 675	Healthcare Information Systems	
ICT 676	Information Systems Analysis and Design	
ICT 690	Special Topics	
ICT 705	Applied Data Analytics	
ICT 706	Independent Studies	
ICT 716	Data Science Tools and Applications	
ICT 736	Interactive Design for Health care	
GPM 604	Advanced Genetics	
GPM 720	Pharmacogenomics	
CLS 726	Proteomics in Precision Medicine	
EPID 700	Introduction to Epidemiology	
Subtotal		12
<b>Seminar</b>		
Must pass one time		
ICT 701	Graduate Research Seminars	0
Subtotal		0
<b>Thesis or Project</b>		
Select one of the following:		0-9

ICT 695	Master's Thesis Hours	
ICT 698	Industrial/ Project (+ One elective from list above)	
Subtotal		9
<b>Non-Course Requirements</b>		
699	Thesis Defense	0
<b>Total</b>		<b>33</b>

## Study Plan Project

Course	Title	Hours
<b>First Year</b>		
<b>First Semester</b>		
GPM 601	Research Methods and Ethics in Health and Genomics	3
ICT 666	Computational Bioinformatics	3
ICT 701	Graduate Research Seminars	0
Elective 1		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Semester</b>		
ICT 660	Principles of Health Informatics	3
ICT 665	Artificial Intelligence and Machine Learning in Healthcare	3
Elective 2		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>First Semester</b>		
Elective 3		3
Elective 4		3
Elective 5		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Semester</b>		
ICT 698	Industrial/ Project	6
<b>Semester Hours</b>		<b>6</b>
<b>Total Hours</b>		<b>33</b>

## Thesis

Course	Title	Hours
<b>First Year</b>		
<b>First Semester</b>		
GPM 601	Research Methods and Ethics in Health and Genomics	3
ICT 666	Computational Bioinformatics	3
ICT 701	Graduate Research Seminars	0
Elective 1		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Semester</b>		
ICT 660	Principles of Health Informatics	3
ICT 665	Artificial Intelligence and Machine Learning in Healthcare	3
Elective 2		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>First Semester</b>		
ICT 695	Master's Thesis Hours	3
Elective 3		3
Elective 4		3
<b>Semester Hours</b>		<b>9</b>
<b>Second Semester</b>		
ICT 695	Master's Thesis Hours	6
<b>Semester Hours</b>		<b>6</b>
<b>Total Hours</b>		<b>33</b>