

## Healthcare Informatics and Data Analytics

الخطة الدراسية لبرنامج تحليلات ومعلوماتية الرعاية الصحية:

### First Level – Semester 1 (17 Credits)

Course Code	Course Name	Cr	L	P	
02-24-00101	Linear Algebra	3	2	1	
02-24-00102	Calculus	3	2	1	
02-24-00103	Introduction to Computer Systems	3	2	1	
02-24-00104	Introduction to Data Sciences	3	2	1	
02-24-00105	Programming I	3	2	1	
02-00-000XX	Critical Thinking	2	2	0	

### First Level – Semester 2 (17 Credits)

Course Code	Course Name	Cr	L	P	
02-24-00106	Probability and Statistics I	3	2	1	
02-24-00107	Discrete Structures	3	2	1	
02-24-00108	Data Structures and Algorithms	3	2	1	
02-24-00109	Introduction to Artificial Intelligence	3	2	1	
02-24-00110	Programming II	3	2	1	
02-00-000XX	Innovation & Entrepreneurship	2	2	0	

### Second Level – Semester 3 (17 Credits)

Course Code	Course Name	Cr	L	P	
02-24-00201	Probability and Statistics II	3	2	1	
02-24-00202	Introduction to Databases	3	2	1	
02-24-00203	Numerical Computations	3	2	1	
02-24-05201	Introduction to Epidemiology	3	2	1	

02-24-05202	Anatomy and Physiology	3	2	1	
02-0X-000XX	University Elective	2	2	0	

#### Second Level – Semester 4 (17 Credits)

Course Code	Course Name	Cr	L	P	
02-24-00204	Cloud Computing	3	2	1	
02-24-00205	Machine Learning	3	2	1	
02-24-00206	Data Mining and Analytics	3	2	1	
02-24-05203	Pharmacology and Chemistry of Drugs	3	2	1	
02-24-05204	Ethics & Regulations in Healthcare	3	2	1	
02-0X-000XX	University Elective	2	2	0	

#### Second Level – Summer Semester (2 Credits)

Course Code	Course Name	Cr
02-24-05205	Field Training I	2

#### Third Level – Semester 5 (17 Credits)

Course Code	Course Name	Cr	L	P	
02-24-05301	Neuroscience and Robotics	3	2	1	
02-24-05302	Health Information Systems	3	2	1	
02-24-05303	Computer-Assisted Drug Design	3	2	1	
02-24-0X0XX	Faculty Elective	3	2	1	
02-24-0X0XX	Faculty Elective	3	2	1	
02-0X-000XX	University Elective	2	2	0	

#### Third Level – Semester 6 (15 Credits)

Course Code	Course Name	Cr	L	P	Pre-requisites
02-24-05304	National and International Healthcare Systems	3	2	1	02-24-05201
02-24-05305	Health Policy & Economics	3	2	1	02-24-05201
02-24-05306	Healthcare Market Analytics	3	2	1	—

02-24-0X0XX	Faculty Elective	3	2	1	
02-24-0X0XX	Faculty Elective	3	2	1	

### Third Level – Summer Semester (2 Credits)

Course Code	Course Name	Cr
02-24-05307	Field Training II	2

### Fourth Level – Semester 7 (18 Credits)

Course Code	Course Name	Cr	L	P	
02-24-05401	E-health, Telehealth and Telemedicine	3	2	1	
02-24-05402	Mathematical Modelling for Health	3	2	1	
02-24-05403	Clinical & Medical Care Delivery	3	2	1	
02-24-05404	Project I	3	2	1	
02-24-054XX	Program Elective	3	2	1	
02-24-054XX	Program Elective	3	2	1	

### Fourth Level – Semester 8 (18 Credits)

Course Code	Course Name	Cr	L	P	
02-24-05405	Computerized Disease Registries	3	2	1	
02-24-05406	Clinical Decision Support Systems	3	2	1	
02-24-05407	Health Psychology	3	2	1	
02-24-05408	Project II	3	2	1	
02-24-054XX	Program Elective	3	2	1	
02-24-054XX	Program Elective	3	2	1	

المقررات الاختيارية لبرنامج تحليلات ومعلوماتية الرعاية الصحية:

Course Code	Course Name	Cr	L	P	
02-24-05409	Radiation Physics	3	2	1	
02-24-05410	Cellular & Molecular Biology	3	2	1	

02-24-05411	Radiation Biology	3	2	1	
02-24-05412	Pathophysiology & Lab Data	3	2	1	
02-24-05413	Principles of Biochemistry	3	2	1	