

**Faculty: Modern Specialized College of Medical & Technical Sciences**

**Department: Computation and Artificial Intelligence**

**Program: Internet of Things (IoT)**

### Study Plan

The bachelor of Internet of Things consists of 148 credit hours taught in eight semesters.

First Year: First Semester							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Arabic Language	MSC-01	2	0	0	0	2
2	English Language 1	MSC-02	2	0	0	0	2
3	Computer Skills	MSC-03	1	0	4	0	3
4	Communication Skills	CAI-01	2	0	0	0	2
5	Computer Programming 1	CAI-02	1	0	4	0	3
6	Mathematics 1	CAI-03	2	2	0	0	3
7	Computer Fundamentals	CAI-04	1	0	2	0	2
8	Arab Israeli Conflict	MSC-04	2	0	0	0	2
Total of Credit Hours			13	2	10	0	19
First Year: Second Semester							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Islamic Culture	MSC-05	2	0	0	0	2
2	English Language 2	MSC-07	2	0	0	0	2
3	Computer Programming 2	CAI-05	1	0	4	0	3
4	Digital Logic Design	IOT-01	1	0	4	0	3
5	Mathematics 2	CAI-06	2	2	0	0	3
6	Computer Ethics and Law	CAI-07	2	0	0	0	2
7	National Culture	MSC-06	2	0	0	0	2
8	Electrical Circuits	IOT-02	2	0	2	0	3
Total of Credit Hours			14	2	10	0	20

Second Year: First Semester							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Data Structures and Algorithms	CAI-08	2	0	2	0	3
2	Computer Architecture and Organization	IOT-03	2	0	2	0	3
3	Object-Oriented Programming	CAI-09	2	0	2	0	3
4	Discrete Mathematics	CAI-10	2	2	0	0	3
5	Linear Algebra	IOT-04	2	2	0	0	3
6	Electronics Circuits	IOT-05	1	0	4	0	3
<b>Total of Credit Hours</b>			<b>11</b>	<b>4</b>	<b>10</b>	<b>0</b>	<b>18</b>
Second Year: Second Semester							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Statistics and Probabilities	CAI-11	2	2	0	0	3
2	Operating Systems	CAI-12	2	0	2	0	3
3	Introduction to Database	CAI-13	1	0	4	0	3
4	Introduction to Internet of Things	IOT-06	2	0	4	0	4
5	Introduction to Artificial Intelligence	IOT-07	1	0	4	0	3
6	Computer Programing 3	IOT-08	1	0	4	0	3
<b>Total of Credit Hours</b>			<b>9</b>	<b>2</b>	<b>18</b>	<b>0</b>	<b>19</b>
Third Year: First Semester							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Software Engineering	IOT-09	2	0	0	0	2
2	Machine learning & Deep Learning	IOT-10	2	0	4	0	4
3	Microcontrollers & Embedded Systems	IOT-11	2	0	4	0	4
4	Introduction to Sensors	IOT-12	2	0	4	0	4
5	Mobile Applications	IOT-13	2	0	4	0	4
6	Computer Networks	CAI-14	1	0	4	0	3

7	Web Applications	IOT-14	1	0	4	0	3
8	Scientific Research Methods	MSC-08	2	0	0	0	2
<b>Total of Credit Hours</b>			<b>14</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>26</b>
<b>Third Year: Second Semester</b>							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Image processing & Pattern recognitions	IOT-15	1	0	4	0	3
2	Wireless sensor networks	IOT-16	2	0	2	0	3
3	IoT Security	IOT-17	2	0	4	0	4
4	Introduction to Cybersecurity	IOT-18	1	0	4	0	3
5	Cloud computing	IOT-19	1	0	4	0	3
6	IoT Platforms and System Design	IOT-20	1	0	4	0	3
<b>Total of Credit Hours</b>			<b>8</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>19</b>
<b>Fourth Year: First Semester</b>							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Graduation Project 1	IOT-21	0	0	0	6	3
2	Grid Computing	IOT-22	1	0	4	0	3
3	Raspberry Pi and Arduino	IOT-23	1	0	4	0	3
4	Big data analytics	IOT-24	1	0	4	0	3
5	Elective I	IOT-E1	1	0	4	0	3
<b>Total of Credit Hours</b>			<b>4</b>	<b>0</b>	<b>16</b>	<b>6</b>	<b>15</b>
<b>Fourth Year: Second Semester</b>							
No.	Courses Titles	Code / No	Course Hours				C.H.
			L	T	Lab	Tr	
1	Graduation Project 2	IOT-25	0	0	0	6	3
2	Robotics & Mechatronics	IOT-26	1	0	4	0	3
3	Elective II	IOT-E1	1	0	4	0	3
4	Field Training	IOT-27	0	0	0	6	3
<b>Total of Credit Hours</b>			<b>2</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>12</b>