

دليل كلية الهندسة وتقنية المعلومات  
Faculty of Engineering and Information Technology  
قسم الهندسة الميكاترونيات والروبوتات

**FIRST YEAR**

*1 Semester*

Code	Course Name	LH	TH	PH	CH
	Arabic language I	2	-	-	2
	English Language I	2	-	-	2
	Islamic Culture	2	-	-	2
	Mathematics I	3	2	-	4
	Physics I	2	2	2	4
	Introduction to Computers	2	-	2	3
	Engineering Drawing I	2	2	-	3
<b>Total semester hours</b>		<b>15</b>	<b>6</b>	<b>4</b>	<b>20</b>

*2<sup>nd</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Arabic language II	2	-	-	2
	English Language II	2	-	-	2
	Mathematics II	3	2	-	4
	Physics II	2	2	2	4
	Engineering Mechanics	2	2	-	3
	Programming Fundamentals	2	1	2	3
	Engineering Drawing II	2	-	3	3
<b>Total semester hours</b>		<b>15</b>	<b>7</b>	<b>7</b>	<b>21</b>

## SECOND YEAR

### *1<sup>st</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Technical English	3	-	-	3
	Computer Applications	2	-	2	3
	Mathematics III	3	1	-	3
	Electrical Circuits I	2	2	2	4
	Thermal and Fluid Science	2	2	2	4
	Digital Logic	3	-	2	4
<b>Total semester hours</b>		<b>15</b>	<b>5</b>	<b>8</b>	<b>21</b>

### *2<sup>nd</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Mathematics IV	3	1	-	3
	Electrical Circuits II	2	1	2	3
	Signals Analysis and Systems	3	-	1	3
	Assembly Language and Microprocessors	2	-	2	3
	Strength of materials	2	2	1	3
	Electronics I	2	1	2	3
<b>Total semester hours</b>		<b>14</b>	<b>5</b>	<b>8</b>	<b>18</b>

## THIRD YEAR

### *1<sup>st</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Numerical Methods	2	-	2	3
	Design of Machine Elements	2	2	-	3
	Mechanics of Machinery	2	2	1	3
	Electronics II	2	2	2	4
	Electrical Machines (Mech. and Mechatronics Engineering) I	2	1	2	3
<b>Total semester hours</b>		<b>13</b>	<b>8</b>	<b>7</b>	<b>19</b>

### *2<sup>nd</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	System Dynamics and Vibrations	3	2	1	4
	Modeling and simulation of Dynamics Systems	2	1	2	3
	Measurements and Instrumentation <b>Transducers</b>	3	1	2	4
	Control Systems	2	2	1	3
	Introduction to Robotics	2	1	-	3
	Electrical Machine - II	2	1	2	3
<b>Total semester hours</b>		<b>14</b>	<b>8</b>	<b>8</b>	<b>20</b>

## FOURTH YEAR

### *1<sup>st</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Design of Hydraulic and Pneumatic Systems	2	2	1	3
	Robotics	2	2	-	3
	Embedded Systems	3	-	2	4
	Engineering Economic Analysis	3	1	-	3
	Elective Course	3	-	-	3
<b>Total semester hours</b>		<b>13</b>	<b>5</b>	<b>3</b>	<b>16</b>

### *2<sup>nd</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Cost Accounting and Feasibility Study	2	1	-	2
	Modern Control Systems	2	2	-	3
	Power Electronics	3	1	-	3
	Introduction to Mechatronics	3	-	-	3
	Seminar in Mechatronics and Robotics	2	-	-	2
	Elective Course	3	-	-	3
<b>Total semester hours</b>		<b>15</b>	<b>4</b>	<b>-</b>	<b>16</b>

## One Month Summer Training

## FIFTH YEAR

### *1<sup>st</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Mechatronic System Design I	2	-	2	3
	Robotics and Automation	3	-	-	3
	Elective Course	3	-	-	3
	Mechatronics Graduation Project	-	-	5	2
<b>Total semester hours</b>		<b>8</b>	<b>-</b>	<b>7</b>	<b>11</b>

### *2<sup>nd</sup> Semester*

Code	Course Name	LH	TH	PH	CH
	Mechatronic System Design II	2	-	2	3
	Programmable Logic Controller	2	1	2	3
	Elective Course	3	-	-	3
	Mechatronics Graduation Project	-	-	7	3
<b>Total semester hours</b>		<b>7</b>	<b>1</b>	<b>11</b>	<b>12</b>
<b>Total Credit Hours = 20+21+21+18+19+20+16+16+11+12 = 174</b>					

