

## Program Structure

Course Title	Credit Hour
Semester 1	
Physics I	3
Calculus I	3
Arabic Language I	2
English Language I	2
Religious Studies I	2
Sudanese Studies	2
Introduction to ICDL	3
Human Organization	2
Chemistry	3
Semester 2	
Calculus II	3
Physics II	3

Course Title	Credit Hour
Electricity & Magnetism	3
Statistics and Probability	3
Arabic Language II	2
English Language II	2
Religious Studies II	2
Structural Programming with C	3
Engineering Drawing(I)	3
<b>Semester 3</b>	
English Language III	2
Signals and System	3
Religious Studies III	2
Circuits Analysis I	3
Linear Algebra	3
Data Structure	3
Material Science	3
Discrete Mathematics	3
Arabic Language III	2

Course Title	Credit Hour
Modern Physics	3
<b>Semester 4</b>	
Differential Equations	3
Circuits Analysis II	3
Semiconductor Physics and Devices	3
Programming Language I	3
Heat Transfer and Thermodynamics	3
Communication Skills	2
<b>Semester 5</b>	
Fluid Mechanics	3
Electromagnetic Theory	3
Engineering Economics	2
Digital System II	3
Electronic Circuits I	3
Analog Communications	3
Programming Language II	3
<b>Semester 6</b>	

Course Title	Credit Hour
Computer Organization	3
Digital Communications	3
Mechanics of Materials	3
Environmental Studies	2
Basic Training	3
Semester 7	
Principles of Management	2
Computer System & Assembly Language	3
Microelectronics Technology	3
Digital Signal Processing	3
Transmission System	3
Semester 8	
Switching and Traffic	3
CAD of Circuits and Systems	3
Control Systems Design and Simulation	3
Microprocessor and Interfacing	3
Design Project	2

Course Title	Credit Hour
Wave Propagation	3
<b>Semester 9</b>	
Computer Architecture	3
Information Theory and Coding	3
Microwave Technologies	3
Antennas	3
Neural Network and Fuzzy Logic	3
Optoelectronics	2
Project I	3
Mobile Communication	3
<b>Semester 10</b>	
Radar & Sonar Engineering	3
Satellite Communication	3
Telecommunication Network Design	3
E- Commerce	3
Optical Communication	3
<b>Total Credit Hour 193</b>	