Bachelor of Science (Honors) in Computer Science

The Computer Science Program intends to combine between the academic courses and their practical applications. It prepares students with the necessary academic and professional experiences that enable them to write and practice various computer programs (software). The program also incorporates emphasis on related topics to the computer science field and the environment.

- The courses are designed over a semester basis. Ten semesters are required for the B.Sc. (Hons.) Graduation in computer science.
- The required 201 credit hours are distributed over ten semesters at an a average load of 21 credit hours / semester.

Program Structure

Course Title	Credit Hour
Semester 1	
ICDL	3
Calculus & Analytic Geometry I	2
Physics I	3
Introduction To Psychology	2
Arabic Language I	2
English Language I	2
Religious Studies I	2
Sudanese Studies	2
Communication Skills	2
Semester 2	
Structural Programming with Pascal	3
Calculus & Analytic Geometry II	2

Course Title	Credit Hour
Physics II	3
Arabic Language II	2
Basic Mathematics	3
English Language II	2
Religious Studies II	2
Semester 3	
Discrete Mathematics	3
Modern Physics	2
Introduction to Statistics	2
Arabic Language III	2
English Language III	2
Religious Studies III	2
Circuit Theory 1	3
Data Structure	3
Calculus & Analytic Geometry III	2
Semester 4	
Computer – Human Interaction	3
Electronics 1	3
Probability Theory	2
Linear Algebra	3
Graph Theory	2
Introduction to Economics	2
Communication Skills	2

Course Title	Credit Hour
Semester 5	
Internet Technology & Web Design I	3
Differential Equations	3
Digital Logic System Design	2
Environmental Studies	2
Database Systems	3
Programming Language I	3
Analysis & Design of Algorithms	3
Semester 6	
System Analysis & Design	3
Programming Language II	3
Analysis & Design Of Algorithms II	3
Concept Of Programming Languages	3
Numerical Computing	2
Semester 7	
Software Engineering I	3
Introduction to Artificial Intelligence	3
4th Generation Language	3
Parallel Processing	3
Software Applications	3
Semester 8	
Image Processing	3
Software Engineering II	3

Course Title	Credit Hour
Operating Systems	3
Semester 9	
Introduction To Of Compilers	3
Security & Cryptography	3
Data Mining & Machine Learning Systems	3
Evaluation Of Computer Systems Performance	3
Computer Animation	3
Semester 10	
Multimedia Information System.	3
Selected AI Applications	3
Virtual Reality	3
Digital Libraries	3
Special Topics In Computer Science	3
Total Credit Hour 162	