**Curriculum of Computer Science Department**

**College of Science and Arts- Sharaurah**

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| **Level****المستوى** | **Course****Code****رمز المقرر** | **Course Title****اسم المقرر** | **Required****or Elective****اجباري أو اختياري** | **\*Prerequisite courses****مقررات متطلب سابق** | **Credit****Hours****الساعات المعتمدة** | **College or****Department****الكلية أو القسم** |
| **Level 1**المستوى (1) | 011ENG-6 | Intensive English | Required |  | 6 | College |
| 100MATH-3 | General Math | Required |  | 3 | College |
| 101CS-4 | Introduction to Computers & IT | Required |  | 4 | Department |
| 101PHYS-3 | Physics | Required |  | 3 | Department |
| 111ISL-2 | Introduction to Islamic Culture | Required |  | 2 | College |
|  |  |  |  |  |  |
| **Level 2**المستوى (2) | 012ENG-3 | English for Computer Science | Required | 011ENG-6 | 3 | College |
| 202MATH-3 | Calculus  | Required | 100MATH-3 | 3 | College |
| 202CS-4 | Structural programming using C language | Required | 101CS-4 | 4 | Department |
| 201CE-3 | Electric & Electronic Circuits | Required | 101PHYS-3 | 3 | Department |
| 112ISL-2 |  Islamic Culture 2 | Required |  | 2 | College |
| 110EDU-2 | Fundamentals of Education | Required |  | 2 | College |
| 201ARAB-2 | Language skills | Required |  | 2 | College |
| **Level 3**المستوى (3) | 303CS-4 | Object-Oriented programming using Java language | Required | 202CS-4 | 4 | Department |
| 302CE-4 | Digital Logic Design | Required | 101CS-4 | 4 | Department |
| 230CURR-2 | Curriculum | Required |  | 2 | College |
| 301IS-3 | Fundamentals of Information Systems | Required | 101CS-4 | 3 | Department |
| 303MATH-3 | Discrete Math | Required | 202MATH-3 | 3 | College |
| 113ISL-2 |  Islamic Culture 3 | Required |  | 2 | College |
| **Level 4**المستوى (4) | 403CE-3 | Computer Organization & Assembly Language | Required | 302CE-4 | 3 | Department |
| 402IS-3 | Principles of Database  | Required | 301IS-3 | 3 | Department |
| 404CS-3 | Data Structures | Required | 303CS-4 | 3 | Department |
| 221SYC-3 | Educational Psychology | Required |  | 3 | College |
| 404MATH-3 | Statistics and Probability Theory  | Required | 202MATH-3 | 3 | College |
| 114ISL-2 |  Islamic Culture 4 | Required |  | 2 | College |
| 202ARAB-2 | Arabic Writing  | Required |  | 2 | College |
| **Level 5**المستوى (5) | 505CS-3 | Compiler Design | Required | 303CS-4 | 3 | Department |
| 506CS-3 | Operating Systems | Required | 404CS-3 | 3 | Department |
| 507CS-3 | Algorithm Design & Analysis | Required | 404CS-3 | 3 | Department |
| 369SYC-2 | Guidance and Psychological Counselling | Required |  | 2 | College |
| 504CE-3 | Data Communication & Network fundamentals | Required | 101CS-4 | 3 | Department |
| 211EDU-2 | Computers in Education | Required |  | 2 | College |
| 353EDU-2 | Educational Supervision | Required |  | 2 | College |
| **Level 6**(6) المستوى | 608CS-3 | Computer Graphics | Required | 101CS-4303CS-4 | 3 | Department |
| 603IS-3 | System Design & Analysis | Required | 301IS-3 | 3 | Department |
| 609CSS-3 | Human Computer interface | Required | 303CS-4 | 3 | Department |
| 610CS-3 | Introduction to Software Engineering | Required | 303CS-4402IS-3 | 3 | Department |
| 341CURR-3 | Educational Technology | Required |  | 3 | College |
| 611CS-3 | Special topics in computer Science | Required |  | 3 | Department |
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| **Level 7**(7) المستوى | 704IS-3 | Web-Based Systems | Required | 402IS-3504CE-3 | 3 | Department |
| 352EDU-2 | School Management  | Required |  | 2 | College |
| 353CURR-2 | Strategies of Teaching Computers  | Required |  | 2 | College |
| 712CS-3 | Computer Security | Required | 504CE-3 | 3 | Department |
| 7XXCS-3 | Elective  | Elective |  | 3 | Department |
| 713CS-2 | Graduation project 1 (Proposal) | Required |  | 2 | Department |
| 151SYC-2 | Educational Evaluation | Required |  | 2 | College |
| 714CS-3 | Introduction to Artificial Intelligence | Required | 404CS-3 | 3 | Department |
| **Level 8**(8) المستوى | 823CS-4 | Graduation project 2 (Implementation) | Required |  | 4 | Department |
| 476CURR-8 | Practicum ( Educational field training) | Required |  | 8 | College |
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| Include additional years if needed.**Elective Courses:**

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| 7 | 715CS-3 | Advanced operating systems | Elective | 506CS-3 | 3 | Department |
| 7 | 716CS-3 | Advanced Software Engineering | Elective | 610CS-3 | 3 | Department |
| 7 | 717CS-3 | Advanced Computer Graphics | Elective | 608CS-3 | 3 | Department |
| 7 | 718CS-3 | Wireless and Mobile Computing | Elective | 504CE-3 | 3 | Department |
| 7 | 719CS-3 | Natural Language Processing | Elective | 609CS-3 | 3 | Department |
| 7 | 720CS-3 | Data Mining | Elective | 402ISCS-3 | 3 | Department |
| 7 | 721CS-3 | Advanced Computer Organization | Elective | 403CE-3 | 3 | Department |
| 7 | 722CS-3 | Modelling and Simulation | Elective | 404MATH-3 | 3 | Department |

**Note :** At the beginning of each academic year, the department defines the following:* Subjects to be taught in Selected Topics in Computer to overcome some deficiencies, to complete some topics courses that were taught or modern topics.
* Elective course is building on the direction of a particular path (Area - Track) described above adopted by the department.
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