

## Courses Description

**College:** Prince Alhusein Bin Abdullah The Second For Information Technology

**Department:** Computer Information Systems(Cis)

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**Course ID:** 1002111      **Description:** Object-Oriented Programming (1)

**Full Course Description:** Object oriented concepts via c++ programming language, classes, objects, messages, inheritance, overloading, virtual functions, polymorphism templates, and reading& writing to files.

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**Course ID:** 1002112      **Description:** Object Oriented Programming (1)/Lab

**Full Course Description:** Using c++ language to develop object oriented programs including classes, object, messages, inheritance, overloading, virtual functions, polymorphism templates, and reading& writing to files.

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**Course ID:** 1002201      **Description:** Introduction to Computer Information systems

**Full Course Description:**

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**Course ID:** 1002210      **Description:** Object Oriented Programming

**Full Course Description:** Object oriented concept using java, Generics, Collections, Object Oriented databases, Object oriented networks ,GUI programming, Reusable components ,Object Oriented for Web sites, Methods , messages , relations, inheritance and polymorphism templates .

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**Course ID:** 1002211      **Description:** Object-Oriented Programming (2)

**Full Course Description:**

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**Course ID:** 1002212      **Description:** Object Oriented Programming (2)/Lab

**Full Course Description:** Using Java language to develop object oriented programs including classes, object, messages, inheritance, overloading, Graphical User Interface (GUI) , and reading& writing to files.

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**Course ID:** 1002221      **Description:** Management Information Systems

**Full Course Description:** Information system development, file organization and database management, information system feasibility, information system design, and information system implementation.

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**Course ID:** 1002281      **Description:** Introduction to Database Systems

**Full Course Description:** Database management, database system architecture, introduction to relational databases, an introduction to SQL, domain, relations , relational algebra, views, functional dependencies, normalization.

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**Course ID:** 1002310      **Description:** Web Programming

**Full Course Description:** Internet concepts and principles, graphics and image formats, HTML, scripting languages (client-side scripting and server-side scripting), and web multimedia components.

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**Course ID:** 1002311      **Description:** Web Programming

**Full Course Description:**

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**Course ID:** 1002361      **Description:** Artificial Intelligence

**Full Course Description:** Gives a broad introduction to the rapidly-developing fields of artificial intelligence (AI). Covers general knowledge representation techniques and problem solving strategies. Topics will include search techniques, rule-based systems, prepositional and first order logic, fact representation in logic and logic programming. Also, gives discussion on some important application areas in AI: natural language Processing, machine learning, expert systems, reasoning, neural network.

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**Course ID:** 1002381      **Description:** Foundation of E-commerce

**Full Course Description:**

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**Course ID:** 1002382      **Description:** Foundation of E-Commerce

**Full Course Description:** E-Business models, Internet marketing, online monetary transactions, computer and network security, web page creation packages, Active Server Pages (ASP), XML.

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**Course ID:** 1002384      **Description:** Advanced Database Systems

**Full Course Description:** Concurrency control (introduction, concurrency problems, locking, deadlock, serializability, Isolation level), security (introduction discretionary and mandatory access control, statistical databases, data encryption), temporal databases (introduction temporal data, problems, interval, interval types, scalar operators on intervals, aggregate operators on intervals, relational operators, constraints) and object-oriented database.

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**Course ID:** 1002460      **Description:** Image Processing

**Full Course Description:** Principles of image processing, image formats operations (restoration, compression, segmentation, transformation, representation and warping), displaying and filtering images, homogeneous point processing, direct convolution, edge detection, morphological filtering, and boundary

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**Course ID:** 1002462      **Description:** Image Processing

**Full Course Description:**

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**Course ID:** 1002463      **Description:** Neural Networks

**Full Course Description:** Introduction to Neural Networks , neurons, single layer perceptions (least mean square algorithm, learning curves, learning rates), multilayer perceptions (back-propagation algorithm, heuristic for improving the back-propagation algorithm), other types of neural processing, and neural network applications.

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**Course ID:** 1002481      **Description:** System Analysis and Design

**Full Course Description:** System development life cycle , preliminary investigation items , Fact findings , planning analysis , design implementation , documentation and a real world case study ( project ) .

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**Course ID:** 1002483      **Description:** Distributed Database Systems

**Full Course Description:** Distributed data storage, network transparency, distributed query processing, distributed transaction model, commit protocols, coordinator selection, concurrency control, deadlock handling and multidatabase systems.

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**Course ID:** 1002495      **Description:** Special Topics in Computer Information Systems CIS

**Full Course Description:** This course allows the department to cover one of the recent topics in the field of computer information systems.

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**Course ID:** 1002498      **Description:** Practical Training

**Full Course Description:** The Bsc degree in (CS / CIS / SWE) requires 8 weeks of continuous training inside Jordan or 6 weeks continuous training outside Jordan.The training must be conducted within private or public sectors working in the IT field,wich requires the approval of the department.

A final report is also required,training can be replaced by a recognized certificate in the IT field.

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**Course ID:** 1002499      **Description:** Information System Project

**Full Course Description:** Students divided into groups, design and develop an information system in one of the computer information systems fields.

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**Course ID:** 111002240      **Description:** Introduction to Database Systems

**Full Course Description:** f

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**Course ID:** 111002241      **Description:** Introduction to Database Systems Lab

**Full Course Description:** f

## Courses Description

**College:** Prince Alhusein Bin Abdullah The Second For Information Technology

**Department:** Computer Information Systems(Cis)

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**Course ID:** 111002342      **Description:** Advanced Database Systems

**Full Course Description:** g

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**Course ID:** 111002350      **Description:** Data Warehousing Technologies

**Full Course Description:** g

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**Course ID:** 111002351      **Description:** Data Mining

**Full Course Description:** g

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**Course ID:** 111002372      **Description:** Information Retrieval Systems

**Full Course Description:** g

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**Course ID:** 111002374      **Description:** Management of Information System

**Full Course Description:** f

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**Course ID:** 111002375      **Description:** E-Commerce

**Full Course Description:** f

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**Course ID:** 111002377      **Description:** Information Technology Systems

**Full Course Description:** g

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**Course ID:** 111002410      **Description:** Advanced Internet-Applications Programming

**Full Course Description:** f

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**Course ID:** 111002420      **Description:** Network Management

**Full Course Description:** f

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**Course ID:** 111002470      **Description:** System Analysis & Design

**Full Course Description:** d

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**Course ID:** 111002471      **Description:** Information Systems Security

**Full Course Description:** f

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**Course ID:** 111002473      **Description:** Decision Support Systems

**Full Course Description:** f

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**Course ID:** 111002474      **Description:** Introduction to E-Learning

**Full Course Description:** GG

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**Course ID:** 111002481      **Description:** Distributed Systems

**Full Course Description:** f

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**Course ID:** 111002490      **Description:** Practical Training

**Full Course Description:** f

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**Course ID:** 111002491      **Description:** Special Topics in Computer Information Systems

**Full Course Description:** f

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**Course ID:** 111002492      **Description:** Graduation Project (1)

**Full Course Description:** f

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**Course ID:** 111002493      **Description:** Graduation Project (2)

**Full Course Description:** de

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**Course ID:** 151002221      **Description:** Information Technology Centers Management

**Full Course Description:** د

## Courses Description

**College:** Prince Alhusein Bin Abdullah The Second For Information Technology

**Department:** Computer Information Systems(Cis)

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**Course ID:** 151002231      **Description:** E-Customer Relationship Management

**Full Course Description:** bh

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**Course ID:** 151002240      **Description:** Introduction to Database Systems

**Full Course Description:** This course is on the design and implementation of relational database systems. Topics include Database users and fundamental concepts, relational database model and constraints, conceptual modeling and database design, ER/EER to relational mapping, functional dependencies, and normalization of the relational database. SQL is also an integral part of the course which includes mainly DDL and DML commands. Case studies of real-life scenarios are used to illustrate how relational database technology can support organizations in advances their business.

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**Course ID:** 151002241      **Description:** Introduction to Database Systems Lab

**Full Course Description:** This course is on the design and implementation of relational database systems. Topics include Database users and fundamental concepts, relational database model and constraints, conceptual modeling and database design, ER/EER to relational mapping, functional dependencies, and normalization of the relational database. SQL is also an integral part of the course which includes mainly DDL and DML commands. Case studies of real-life scenarios are used to illustrate how relational database technology can support organizations in advances their business.

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**Course ID:** 151002310      **Description:** Programming of Internet Applications

**Full Course Description:** This course is on the design and implementation of Web-based applications. Topics include building Client-side applications using HTML5, CSS, and Javascript, building Server-side programs using PHP languages, and interaction with the relational database; MYSQL. The course also demonstrates the best practice in developing HTML pages with a focus on Readability, Maintainability, and reusability. Case studies of real-life scenarios are used to illustrate that websites of good design can have more visitors and increase their engagement in the business.

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**Course ID:** 151002311      **Description:** Programming of Internet Applications Lab

**Full Course Description:** □  
Design web pages and the client side using HTML, JavaScript, CSS, and the sever-side using the PHP language. Installing the Apache and MySql servers and connecting them to the internet and accessing through the internet the web pages and the client server applications that are on the Apache server.□

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**Course ID:** 151002342      **Description:** Advanced Database Systems

**Full Course Description:** This course aims to provide students with advanced topics in the database, the student will be able to understand the transactions and its properties, recoverable and serializable schedules, the two major concurrency control techniques which are 2PLP and Timestamp ordering, database recovery techniques, distributed DB and centralized DB, and data mining concepts.

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**Course ID:** 151002350      **Description:** Data Warehousing Technologies

**Full Course Description:** In this course, students are presented with the basic concepts, fundamental issues, and techniques for the design of a data warehouse or data mart. Students examine all phases and tasks of the data warehouse design process, including business modeling, entity relationship diagramming, dimensional □ database administration, and data warehousing are provided. The importance of these concepts in support to the decision making process within the organization. Further, topics in data availability, database change management, and disaster planning are discussed.□  
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**Course ID:** 151002351      **Description:** Data Mining

**Full Course Description:** Data mining is concerned with the extraction of novel knowledge from large amounts of data. This course introduces and studies the concepts, issues, tasks and techniques of data mining. Topics include data preparation and feature selection, association rules, classification, clustering, evaluation and validation, scalability, spatial and sequence mining, and data mining applications. The practical side of this course will introduce students to learn and use the open source Weka data mining too.

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**Course ID:** 151002352      **Description:** Geographical Information Systems

**Full Course Description:** An introduction to the Geographical Information System (GIS) concepts and techniques, obtain the knowledge of geographical data in digital form. The importance of GIS and Remote Sensing (RS) system in the applications and to perform the basic analysis operations. Demonstrate developing programming skills into GIS applications, spatial database and data processing algorithms.

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**Course ID:** 151002372      **Description:** Information Retrieval Systems

**Full Course Description:** Functional view of information retrieval, types of IRS, design issues of IRS (keyword-based retrieval, file structures, thesaurus construction, etc.), IR data structures and algorithms (lexical analysis, stemming, term weighting, associative indexing, Boolean operations, string searching and matching techniques, etc.), relevance feedback and query modification, applications and case studies

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**Course ID:** 151002374      **Description:** Information Systems Managment

**Full Course Description:** An introduction to the knowledge, skills, and tools needed in the successful management of operational database systems. The concepts for data quality and data integration, data and database administration, and data warehousing are provided. The importance of these concepts in support to the decision-making process within the organization. Further, topics in data availability, database change management, and disaster planning are discussed.

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**Course ID:** 151002375      **Description:** E-Commerce

**Full Course Description:** Overview of Information Systems and Electronic Commerce, E-Marketplaces, Retailing and Consumer behaviour, Multi stage channel of E-Commerce Model, B2B E-Commerce, B2B Exchange and E-Supply chain, E-Government, applications, and government strategy, E-Learning and software on building e-courses, Mobile Computing and Mobile Commerce perspectives, E-Commerce Software, Establishing Website, Web server, E-Commerce Software, E-Auctions, E-Commerce Security, Electronic Payment, E-Commerce strategy, The future of e-commerce in Jordan, Legal and Ethical issues in EC. ASP server side and XML.

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**Course ID:** 151002377      **Description:** Information Technology Systems

**Full Course Description:** The course starts by enabling students to differentiate between data, information, and knowledge. The course then introduces students to concepts precisely related to data and information management. The students will learn about the technologies involved in such management. These include hardware technologies, software technologies, database management systems as well as networking technologies. This course introduces the essential of Information Systems. All phases from long-range or strategic information systems planning to development and operation (maintenance). Impact that has on decision making, managing computing and communication resources, security of information systems, enterprise applications, data warehousing, health information systems, data mining security, data reduction and privacy in information systems. Tools and applications will be used to master skills on a live project assignment. Information services will be studied as a separate topic. Finally, the students will learn how these technologies could be integrated into different classes of systems including transaction processing systems, decision support systems and intelligent systems

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**Course ID:** 151002410      **Description:** Advanced Internet - Applications Programming

**Full Course Description:** Application of server-side scripting programming, Implementation of Web servers, SQL & MySQL, Database Interfaces (DBIs), Advanced ActiveX Data Objects (ADO.NET), Active Server Pages.NET (ASP.NET), programming using Perl, Common Gateway Interface (CGI), PHP, Python, Java Servlets and JSP.

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**Course ID:** 151002420      **Description:** Network Management

**Full Course Description:** يركز هذا المساق على سمات إدارة الشبكات مثل إدارة الأخطاء، إدارة التكوين، إدارة الأداء، إدارة الحماية، إدارة المحاسبة . كما يتم التعرف بمتطلبات بناء الشبكات وتوسعتها المستقبلية يقدم هذا المساق دراسة للبروتوكولات الحديثه لتجهيز أنظمة الاتصال والتراسل بإدارة الشبكة . الدراسة تقدم التحليل والتصميم والتطبيق في متعدد الأنظمة الغير متجانسة. كما تقدم المادة تعريفاً بالأدوات المستخدمة في إدارة الشبكات □

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**Course ID:** 151002440      **Description:** Database Languages & Tools

**Full Course Description:** A selected DB Language such as Oracle; Additional support tools for business applications: DDL ,TCL and DML commands, Oracle developer (Forms, and Reports design), PL/SQL :functions, procedures, and triggers, database Connectivity using (ODBC or JDBC Technologies), using DBMS tools like database backup (export and import), and database recovery. Case study. Weekly practice in the lab.

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**Course ID:** 151002470      **Description:** System Analysis & Design

**Full Course Description:** Analysis of requirements for information systems. Elicitation/fact-finding, problem analysis, decomposition, and the requirements document. Concepts, methods, techniques, and tools for systems analysis, modeling and simulation, and prototyping. Structured and object-oriented analysis. Role of the systems analyst in the organization. Gaining user commitment and fulfilling user needs. Concepts, tools, and techniques for systems design. Design principles, quality factors, decomposition of complex systems, and modularization techniques. Design methods such as object-oriented and function-oriented design. Comparison of analysis and design techniques.

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**Course ID:** 151002471      **Description:** Information Systems Security

**Full Course Description:** The course covers security architecture, security attacks, security mechanisms, symmetric ciphers, Classical encryption techniques, data encryption standards (DES), primary numbers, introduction to number theory, public-key cryptosystems, RSA algorithm, message authentication, digital signature and Hash function

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**Course ID:** 151002473      **Description:** Decision Support Systems

**Full Course Description:** k

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**Course ID:** 151002481      **Description:** Distributed Systems

**Full Course Description:** This course addresses some of the basic principles behind distributed systems (collection of independent components that appear to the users as a single coherent system) and reviews some of the main paradigms used to organize them. This course aims to present the fundamental concepts and techniques about the design and construction of distributed systems. Topics to be covered are: models of distributed systems, networking and internetworking, concurrency control and synchronization, distributed programming, distributed operating systems and case studies of networking software.

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**Course ID:** 151002490      **Description:** Practical Training

**Full Course Description:** b

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**Course ID:** 151002491      **Description:** Selected Topics In Computer Information Systems

**Full Course Description:** This course allows the department to cover one of the recent topics in the field of computer information systems that is not offered within the courses offered by the department.

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**Couse ID:** 151002492      **Description:** Applied Project (1)

**Full Course Description:** This course along with the scientific research 2 course aim to prepare students to be ready to develop information system and document it in a standard method. Students divided into groups and each group is supervised by a lecturer. This group designs and develops an information system in one of the computer information systems fields. In this course, Project in computer information systems 1, students make a literature survey, study the problem to be solved, make a feasibility study, user requirements, and design the solution to the problem.

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**Couse ID:** 151002493      **Description:** Applied Project (2)

**Full Course Description:** This course is a continuation to the scientific research 2 course. The students implement the design of the system, make testing using real data, conclude the project and recommend a future expansion to this project. Finally, the students document the project and submit it to the exam committee.

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**Couse ID:** 151002495      **Description:** Special Topics In Business Information Technology

**Full Course Description:** f

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**Couse ID:** 151002496      **Description:** Project In Business Information Technology (1)

**Full Course Description:** dd

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**Couse ID:** 151002497      **Description:** Project In Business Information Technology (2)

**Full Course Description:** cc