هيئة اعتماد مؤسسات التعليم العالي وضمان جودتها

Accreditation and Quality Assurance Commission for Higher Education Institutions

المركز الوطني للاختبارات

كفايات برنامج وتخصصات علوم الحاسوب وتكنولوجيا المعلومات

1 - تخصص أمن وحماية الشبكات والمعلومات

Plan, design, implement, analyze, integrate, and troubleshoot simple and complex networks.

Demonstrate comprehensive understanding for information and network security; planning, risk management, security technologies, and personnel.

Perform two-factor authentication methods by analyzing intrusions and gather information and evidence about attacks in a legal forensically matter.

Given a computer network engineering problem, apply critical thinking, problem-solving techniques and effective communications skills to find solutions to the problem.

Ability to apply in-depth knowledge of wireless communications principles, systems, and networks to the solution of wireless engineering problems.

2 - تخصص هندسة البرمجيات

Create software products based on the quality models and apply software engineering when solving problems.

Be able to demonstrate an understanding of advanced knowledge of the practice of software engineering, from vision to analysis, design, validation and deployment.

Plan, run, monitor, control, document and finish any software project.

Design the quality plan and introduce the processes that control and guarantee the quality of any software product

Identify, formulate, and solve software engineering problems, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements.

Ability to elicit, analyze and specify software requirements through a productive working relationship with various stakeholders of the project.

Ability to evaluate the impact of potential solutions to software engineering problems in a global society, using their knowledge of contemporary issues and emerging software engineering trends, models, tools, and techniques.

Apply coherent and advanced knowledge of software engineering in diverse contexts and domains using critical thinking and judgment.

Apply problem solving, design and decision-making methodologies to identify and provide innovative solutions to complex problems with intellectual independence.

Apply abstraction, modeling and software engineering methods to the scoping, analysis, design, construction and operation of a software system.

An ability to apply knowledge of computing and mathematics in the development of computer algorithms and solutions.
Write programs that are well structured, modular, well documented, efficient, and correct with respect to a specification.
Apply relational database concepts, principles, and theories to designing and creating information systems.
An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems.
Apply operating system and hardware concepts and principles to problem solving in the context of computer systems.
Apply knowledge of networking concepts and principles to solving problems related to networked computer systems.

4 - تخصص نظم المعلومات الحاسوبية
Apply analytical and critical thinking skills for solving organizational problems.
Solve problems (programming networking, database, and Web design) in the Information Technology environment.
Ability to analyze, design, and implement an information system.
Identify the potential global impact of information systems solutions.
Evaluate and implement organizational planning, design, and integration of information systems solutions in competitive environment.
Identify innovative and efficient solutions to solve organizational problems.
Ability to improve the effectiveness of group processes and work products
Develop an understanding of the best practices and standards and their application.
Understand legal and information security associated with information systems.

5 - تخصص نظم المعلومات الإدارية
Plan, develop, implement, deploy and evaluate high quality applications, interactive websites, and procedural components of a data processing system in a business environment.
Explain and apply the core aspects of information technology principles and tools, and manage their implementation in a business context.
Demonstrate the ability to search, analyze, and synthesize current information systems and solutions in the rapidly changing information technology profession.
Work independently and cooperatively to deliver and design reports, programs, projects, databases and other deliverables that document a business organization's information technology requirements.
Understand the characteristics of operation research and its best practices, standards and tools that used to achieve effective solutions.
Understand ethical, legal, and information security, base decisions and professional guidelines and practices associated with business information technology.
Encourage an innovative, creative, compassionate attitude that inspires employees to follow the entrepreneurial outlook of a well organized manager

6 - تخصص الرسم الحاسوبي
علوم الحاسبات و الخوارزميات
البرمجة
مكونات الحاسوب الرئيسية
الرسم الحاسوبي
تطبيقات وعلوم المعلومات

7 - تخصص الوسائط المتعددة
علوم الحاسبات
البرمجيات
الوسائط المتعددة
مكونات الحاسوب والشبكات
تطبيقات وعلوم الوسائط المتعددة

8 - تخصص تكنولوجيا الإنترنت
أساسيات في علوم الحاسوب
تطوير نظم الانترنت وادواتها
أنظمة الانترنيت وتطبيقاتها
الشبكات السلكية واللاسلكية وأمن المعلومات
إدارة المعرفة: (قواعد بيانات، النظم الموزعة)

9 - تخصص نظم الشبكات
قواعد البيانات
تنظيم ومعمارية الحاسوب
نظم التشغيل
تراكيب بيانات و الخوارزميات
هندسة برمجيات
شبكات الحاسوب
برمجة كينونية و برمجة مرئية
أمن الشبكات