**WHAT CAN I DO WITH THIS DEGREE?**

**COMPUTING & INFORMATION SYSTEMS (CIS)**

**INTRODUCTION**

The College of Information Technology at University of Dubai offers a Bachelor Degree in Computing and Information Systems (CIS) that is accredited by the Ministry of Higher Education and Scientific Research in the UAE. The CIS program is also internationally accredited by the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET). ABET accreditation is an international assurance and recognition that the CIS program meets the quality standards set by the computing profession in the USA and worldwide. Students have the option to enroll either in the general CIS program or specialize in one of the following two concentrations: **Information Systems Security** and **Electronic & Mobile Commerce**.

**WHAT CAN I DO WITH A MAJOR IN CIS?**

The College of Information Technology (CIT) at University of Dubai (UD) offers a Bachelor Degree in Computing and Information Systems (CIS). This degree offers an undergraduate program of study that has courses which emphasize strategies and technologies in deploying and managing modern information systems to satisfy the requirements of the newly emerging economic sectors.

The undergraduate degree in CIS helps graduates to understand the role of information systems within a business organization and develop and use such systems for decision-making purposes. The CIS program provides ways to integrate theoretical knowledge and practical skills to effectively plan, design, develop, test, evaluate and manage information systems. In the table below some representative CIS study areas and their corresponding career opportunities are presented.

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| --- | --- |
| **CIS Study Areas** | **Career Opportunities** |
| **INFORMATION SYSTEMS SECURITY**Risk managementBusiness continuity Penetration testing Security management Information assurance Network security design Information Security consultancy Security architectureIncident managementDisaster recovery Information Systems Audit & control Computer forensics  | Banks and financial institutionsConsulting firmsSmall, medium and large Enterprises Private and governmental organizationsCarriers & Internet Service Providers  |
| **Electronic & Mobile Commerce** Customer Relationship Management SystemsMobile commerce integrationE/M commerce application developersWeb site design and application developer Content developer Web programming and application developer Database administrator WebmasterDigital content delivery Telemetry servicesNetwork infrastructure  | E-business model organizationsClick and mortar organizationsBanks and financial institutionsE-government departments Virtual organizations B2B, B2C, B2E service industries  |
| **PROGRAMMING**SystemsScientific ApplicationsBusiness ApplicationsBusiness Intelligence and Data MiningData WarehousingInformation DeliveryMaintenanceProject Planning Management | Computer vendorsSoftware and computer companiesAny large organization including:Banks, retail chains, manufacturers,universities, and government agenciesManagement consulting firmsContract and temporary employersResearch laboratories |
| **SYSTEMS DEVELOPMENT**Systems AnalysisSystems DesignTechnical SupportSystems Re-engineeringQuality AssuranceSpecialty SystemsDatabase SystemsClient-Server ApplicationsExpert SystemsArtificial Intelligence Applications | Banks and financial institutionsInsurance companiesConsulting firmsManufacturersLocal, state, and federal governmentComputer companiesResearch institutions |
| **NETWORK TECHNOLOGY**Network Administration & Support Network Management Network Design Network Maintenance | Small, medium and large enterprises Carriers and internet service providers Private and governmental organizations  |
| **INTERNET**ProgrammingSoftware DesignSystems AnalysisHardware ProductionWeb Page Design | Network access pointsBackbone operatorsOnline service providersInternet service providersComputer/equipment vendorsInternet-related companies including:BrowsersSearch enginesWebsite design servicesLarge businesses |
| **CONSULTING**System InstallationSystem ImplementationTraining | Consulting firmsSelf-employed |
| **EDUCATION**TeachingInstructional Technology | Public and private schools, K-12Colleges and universities |
| **NON-TECHNICAL**Customer/Product SupportTechnical WritingSales and Marketing | Software/hardware manufacturersRetail storesSoftware vendors |

**GENERAL INFORMATION AND STRATEGIES**

* Complete informational interviews with the current CIS faculty and professionals to help establish career goals.
* Having related experience is critical to most employers that hire CIS majors. Visit the Internship & Career Development Center (ICDC) at UD to know more about work placements during study and post graduation.
* Technology Certifications available through the Technology Center (TC) at UD may increase job marketability in some areas of Information systems, such as security, networking and databases.

More details available on <http://www.ud.ac.ae/new/tc/index.php>

* Obtain vendor specific certifications to gain a competitive edge.
* Develop strong interpersonal, communication, and other “soft skills.” Learn to work well on a team.

GENERAL SKILLS Developed by studying a COMPUTING & INFORMATION SYSTEMS DEGREE

* Ability to analyze business problems
* Effective communication
* Consultation and mediation skills
* Communication and project management skills
* Team and Interpersonal skills
* Ability to synthesize and summarize complex business challenges
* Development of objective analyses, proposals and solutions
* Creative and abstract thinking
* Strategic planning
* Quantitative analysis skills
* Awareness of legal and technical opportunities and constraints
* Systematic and logical approaches to problem solving
* Motivation/initiative/drive
* Familiarity with application tools and technologies

**ICDC MAJOR SELECTION RESOURCES**

1. **Occupational Handbooks**

The Occupational Handbooks are available as five separate booklets (in accordance with UD programs namely Acct. F&B; Mktg.; Mgmt. &CIS). These booklets will serve as a road map for the students on the occupation choices available for the majors they would specialize in and will broaden their perspective on the skills which are required from them in each major. Furthermore, they identify training areas for the students in light of a particular job and highlight salary packages associated with each industry while making their career choices. Contact ICDC for your copy.

1. **SIGI 3 – Self Assessment Software**

SIGI 3 is well-known educational and career planning software that integrates self-assessment with in-depth and up-to-date career information. This software has been made available to UD students through use of a username and password and students conduct assessments during their ‘Career Exploration’ Course and otherwise in the UD library. Contact ICDC for log in information.

1. **UD Library**

Access over 37 Career Related Books and 20 Videos at UD Library. Contact ICDC for printed book list.

**FURTHER INFORMATION**

* [Association for Computing Machinery](http://www.acm.org/) ([www.acm.org](http://www.acm.org))
* Association for Information Systems (*www.aisnet.org*).
* Association of Information Technology Professionals (AITP)
* [Institute for Certification of Computing Professionals](http://www.iccp.org/) (www.iccp.org)
* [Computing Research Association](http://cra.org/) (www.cra.org)
* Information Systems Audit and Control Association.( www.isaca.org)
* Dean, College of Information Technology, University of Dubai (UD), 971-4-2072648.
* ICDC Manager, ICDC, University of Dubai (UD), 971-4-2072671/662.

**TYPICAL CIS JOB TITLES**

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| --- | --- | --- |
| Information Systems Manager | Business Systems Analyst | E-marketing/E-commerce specialist |
| E-business technologists/specialist | Database Analyst/Developer/administrator | Lead Software Application Developer |
| Web/e-commerce System Developer | Business Intelligence Analyst | Computer Security Specialist |
| Information Security Manager/officer | Computer Support Specialist | IT Auditor |
| IT Project Manager | Network Administrator/Architect/Manager | IT Consultant |
| IT specialist | E-business integrators |  |