**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 management  Business continuity  Penetration testing  Security management  Information assurance  Network security design  Information Security consultancy  Security architecture  Incident management  Disaster recovery  Information Systems Audit & control  Computer forensics | Banks and financial institutions  Consulting firms  Small, medium and large Enterprises  Private and governmental organizations  Carriers & Internet Service Providers |
| **Electronic & Mobile Commerce**  Customer Relationship Management Systems  Mobile commerce integration  E/M commerce application developers  Web site design and application developer  Content developer  Web programming and application developer  Database administrator  Webmaster  Digital content delivery  Telemetry services  Network infrastructure | E-business model organizations  Click and mortar organizations  Banks and financial institutions  E-government departments  Virtual organizations  B2B, B2C, B2E service industries |
| **PROGRAMMING**  Systems  Scientific Applications  Business Applications  Business Intelligence and Data Mining  Data Warehousing  Information Delivery  Maintenance  Project Planning Management | Computer vendors  Software and computer companies  Any large organization including:  Banks, retail chains, manufacturers,  universities, and government agencies  Management consulting firms  Contract and temporary employers  Research laboratories |
| **SYSTEMS DEVELOPMENT**  Systems Analysis  Systems Design  Technical Support  Systems Re-engineering  Quality Assurance  Specialty Systems  Database Systems  Client-Server Applications  Expert Systems  Artificial Intelligence Applications | Banks and financial institutions  Insurance companies  Consulting firms  Manufacturers  Local, state, and federal government  Computer companies  Research 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**  Programming  Software Design  Systems Analysis  Hardware Production  Web Page Design | Network access points  Backbone operators  Online service providers  Internet service providers  Computer/equipment vendors  Internet-related companies including:  Browsers  Search engines  Website design services  Large businesses |
| **CONSULTING**  System Installation  System Implementation  Training | Consulting firms  Self-employed |
| **EDUCATION**  Teaching  Instructional Technology | Public and private schools, K-12  Colleges and universities |
| **NON-TECHNICAL**  Customer/Product Support  Technical Writing  Sales and Marketing | Software/hardware manufacturers  Retail stores  Software 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 |  |