Your Degree in IT…What Next?

An IT degree is a valuable qualification. Computer technology is a vital engine driving and supporting everything that touches our lives from banking to medical systems, to the ways businesses and government departments operate and deal with us.

Understanding different dimensions of computing is part of the essential skill set for all graduates of the 21st century.

Expertise in IT offers rewarding and challenging possibilities. You have a foundation of knowledge, problem solving and logical thinking that will serve as a competitive advantage to you in your career, in whatever field you choose.

Degrees in CIT include:

BSc Software Development
BSc Software Development & Computer Networking
BSc IT Management
BSc Web Development
BSc Computing
BSc Information Technology Support
BA Multimedia

As an IT Graduate you will have some or all of the following skills:

A knowledge of and ability to deploy computers systems and networks to address a wide range of information technology challenges across a range of industry sectors.
A knowledge of the theory, concepts and methods needed for the design and development of new software applications and networks.
An ability to critically evaluate and apply current tools & techniques in high level computer programming, networking, mathematics, computer architecture and database in the process of system design, development and maintenance.
The ability to analyse problems from various problem domains, design appropriate system solutions, and implement and document the solution to agreed standards.
The ability to project manage a system development project, making the required architectural, networking and software selections or trade-offs, including negotiating with equipment suppliers and vendors, within agreed environmental and financial constraints.
The ability to draw upon a substantial set of diagnostic, technical, design, planning, modelling, implementation and test tools and skills, to justify their use and to apply these creatively in a variety of application domains.
The ability to work ethically and professionally as an individual or within a team with a capacity for leadership.

The ability to use appropriate research techniques and commit to on-going l within the software and networking industry.
Practical skills such as building and using database management systems and other sophisticated software tools.
A knowledge and awareness of the uses to which computers are put, recognizing issues to do with security, safety, etc…
An in-depth knowledge of programming, software engineering and web development skills, content optimisation principles, and communication and information management technologies.
The ability to manage a web development software project through all stages of development, evaluating user requirements, design, compatibility, and technology selections within agreed environmental and financial constraints.
The ability to work effectively on any stage of a web development project as an autonomous individual or as a part of a multidisciplinary development team, recognising the different roles within a team and the different ways of organising (and leading) those teams.
The ability to coordinate and supervise the configuration, testing and deployment of computer systems and the on-going support of those systems and their users.
The ability to coordinate and supervise the development of computer systems, including software components, the deployment and maintenance of those systems.
An understanding of the theory, concepts and methods in Media Design, Media Management, Media Technology and Media Informatics relevant to Digital Media.
Apply and modify Digital Media tools and techniques to solve complex design problems through research, analysis, design, development, communication and management.

Essential Employability Skills required to work in the IT sector include:

 What employers say…

"Companies planning on hiring again in 2013 will opt for candidates that are commercially focused, are able to multi-task and can demonstrate that they can add real value to an organisation."   Brightwater Recruitment Annual Survey 2013

The IT Sector in Ireland – Key Activities:

- Over 200 International ICT Companies

- 600 Irish Software companies and growing

Ireland has developed one of the highest concentrations of ICT activity and employment in the world. The Sector in Ireland attracts global investment with all of the 10 US ICT companies operating here, manufacturing hardware and software. Ireland is one of the biggest exporters of software in the world. There are over 200 IDA supported ICT companies, directly employing 38,500 people. They represent 22% of total exports, estimated at €35 billion, and this is set to grow as companies take advantage of our

competitive opportunities and knowledge-based economy. The Irish software industry is thriving. Six hundred small to medium-sized indigenous companies are bringing innovative and creative products to the world.

The ICT Sector includes an enormous range of technology and activities which include;

Software
Web-Based
Business Process Outsourcing
IT Services/Systems Integration
Shared Services of ICT Company
Automation and Process Control
Electronics Hardware
Financial Ops of ICT Companies
Electronics/IC Design
Storage
Data Supply

IT – Employment Trends

Over the last two years Ireland has attracted foreign investment from big names such as Intel who spent $500 million upgrading its facilities in Leixlip Co. Kildare (IDA).

Paypal created 350 customer support positions at its base in Blanchardstown in 2011 followed by a further 500 positions at a new site in Dundalk in 2012.

Newer social media and games companies such as Twitter and Zynga have established their European Headquarters in Ireland (IDA, 2011). Other new information technology companies that have come to Ireland include Quest Software and LANdesk.

Alongside these newcomers companies such as Google, Citrix, Facebook and McAfee which already have operations here have recently expanded their presence.

ICT services were Ireland's largest export in 2010, valued at €28.2 billion according to the latest CSO figures.

Irish software firms increased their exports to over €900 million in 2011, an increase of 12% from the previous year (Enterprise Ireland, 2012). The indigenous ICT sector is also increasingly moving into d areas such as social media and cloud related platforms (Enterprise Ireland, 2012). The tech industry in Ireland is a major component of the economy employing over 90,000 people. Over 20,000 of these are employed in hardware segments and 70,000 in software and ICT services (Action Plan on Jobs, 2012). The sector continues to cement itself as the one of the centre-pieces of the Irish economy with over 4,000 new jobs having been announced since January 2012. The sector now employs more people in Ireland than the PharmaChemical industry.

One of the big areas of growth is **cloud computing**. Global spending on cloud services is set to exceed $36 billion in 2012, growing at four times the rate of the ICT industry as a whole (SiliconRepublic, 2012).

Ireland is beginning to establish itself as a centre for cloud computing with Microsoft and Google owning two of the 23 data centres spread around Dublin city (IDA, 2012). Microsoft claim that cloud computing has the potential to create up to 8,000 jobs in Ireland in the next 2 years (Action Plan on Jobs, 2012).VM Ware , Trend Micro and xxxxx are key employers in the Cork area.

Job titles and skills in short supply include:

"A skills shortage in candidates 'with knowledge of Java, NET and C++, as well as IT skills specific to individual industries." (Hays, 2011)

-Software applications developers **(Java, C++, C#, VB, Ruby, Perl, Python), network and security experts (.net, SharePoint, encryption, cloud computing, virtualisation (VMware)), system administrators (Oracle, J2EE, SQL Server), web developers (PHP, JavaScript, XML, HTML, Flex, ColdFusion),** business analysts and IT project managers.

- The demand for IT skills span a variety of sectors, from ICT (HP Ireland, Avaya, Quest Software) to gaming (PopCap Games), on-line gambling(Paddy Power) and energy (e.g. Endeco Technologies), with the financial sector featuring prominently as an employer of IT skills (Fidelity Investments, Monex, Fidessa, Murex).

-Jobs span managerial, professional and technician levels, with a significant majority in software development. The installation and integration of Smart Technology and Information Systems in businesses' and organizations spanning every spectrum is on the increase.

This is expected to further expand the use of **SaaS (software as a service)** and cloud computing platforms.

Increased use of the internet **for digital marketing, advertising, sales, networking and communication** (blogs and social networks) and recruitment purposes throughout the economy is also driving the demand for ICT skills. (Ref: National Skills Bulletin 2011.)

Job Titles in the IT sector include;

Software Development

(JEE / .NET)
Mainframe Developer
C / C++ Developer
.Net / C# Engineer
JEE Developer

Web Services Developer
Android / IOS Developer
Ruby on Rails Developer
Cold Fusion Developer
PHP Developer
Python Developer
SharePoint Developer
Engineering / Development Manager
Technical Architect
Senior Engineer / Technical Team Lead

Security / Anti-Fraud

Interim IT Security Consultant
Interim IT Auditor
Interim IT Compliance Specialist

System Analysis

Software Test / QA Engineer
QA Automation Engineer
Business Intelligence Consultant
IT Management Consultant
Business Systems Analyst / Consultant
QA / Test Manager
QA / Test Lead
Principal Engineer / Systems Architect
Data Warehousing Consultant

Support / Administration

Database Administrator (Oracle / SQL Server / Sybase)
Unix / Linux Administrator
Network / Systems Administrator
Network Engineer
Help Desk Support
Application Support Consultant
Service Delivery Manager

QA / Technical Writing / Localisation

Localisation Project Manager
Localisation Engineer
Localisation QA Engineer
Technical Writer / Editor

ERP Consultancy / Specialist Roles

SAP Consultant (Functional / Technical)
SAP Basis Consultant
Oracle Application (Functional / Technical)

IT / Project Management

Programme Manager
Senior Project Manager
Project Manager
Product Manager
Management Consultant

Creative / Design

UI / UX Engineer
Multimedia / Graphical / Web Designer
3D Modeller / Designer
Games Designer
Art Director
Creative Manager
Interactive Designer

Job hunting

http://jobs.makeitincork.com

www.itcork.ie

Employers Job Vacancies

 Professional Organisations

http://bestconnected.enterprise-ireland.com/its-happening-here

http://computingcareers.acm.org

http://www.supportingcareers.ie/industry-insight