

SWITCH YOURSELF OVER TO ICT

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course in ICT at DBS



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ICT SKILLS CONVERSION PROGRAMMES 2016

Dublin Business School (DBS) is delighted to announce that it will be offering a **Level 8 conversion award for a Higher Diploma in Science in Computing** in the specialist streams of **Software Development, Web & Cloud Technologies, IT Infrastructure & Networking** and a **Higher Diploma in Science in Data Analytics** as part of the Springboard+ 2016 initiative.

Springboard+ 2016 has just been launched with the largest offering of free part-time and full-time higher education places to provide reskilling and upskilling opportunities for up to 9,000 jobseekers.

Springboard+ 2016 incorporates part-time Springboard courses and full-time and part-time ICT skills conversion programmes and will provide for 180 courses at 36 higher education institutions across Ireland.

DBS is offering a wide range of courses across the areas of Information & Communication Technology, International Financial Services, Cross Enterprise Skills, Skills for Enterprise to Trade Internationally as well as a number of ICT skills conversion programmes.

Announcing the 5,825 free places Minister Bruton said: “I am delighted to announce that this year, the ICT Conversion courses will also be available to eligible participants on a pilot part-time, two year option. This is due to the continuing demand for high quality ICT graduates”.

In 2016, priority has been given to ICT, high-level manufacturing, entrepreneurship and international financial services. Also included are new courses in culinary skills in order to address emerging skills gaps in that area.

Since 2011, 20,000 jobseekers have participated on Springboard courses with a €85 million investment from the Exchequer.

Dublin Business School (DBS) in conjunction with Microsoft Ireland, their Partner Network and other Industry Partners under the Government Springboard initiative is providing participants the opportunity to reskill or cross skill for FREE under an approved and accredited Level 8 conversion award for a Higher Diploma in Science in Computing. Our programme has been identified as providing specialised ICT training that will offer graduates a realistic prospect of a graduate level entry into the ICT sector and produce graduates that genuinely satisfy the needs of industry.

We currently offer a Level 8 Higher Diploma in Science in Computing in the specialist streams of Software Development, IT Infrastructure & Networking and Web & Cloud Technologies. The programme is awarded by

Quality & Qualifications Ireland (QQI). The full-time course is 10 months with students typically attending classes Monday – Friday (9.00am-5.00pm). Upon successful completion of the 7 months taught programme, participants will engage in a minimum 3 month work placement with a relevant industry partner. The part-time course is 2 evenings per week over 2 academic years. The part-time courses do not incorporate a work placement programme and students will complete an industry project.

With over 80% of our ICT graduates to date securing full time employment, this is an opportunity you won't want to miss. Become part of the ICT success story with DBS today!

For more information & to apply visit www.springboardcourses.ie. Alternatively, contact the DBS Admissions Office directly on 01 4177500 or by emailing ictskills@dbs.ie

Why Choose DBS?



Reputation as Ireland's Leading College

DBS is Ireland's largest independent third level college. With over 9,000 students, DBS provides a comprehensive range of full-time and part-time undergraduate, postgraduate, professional and executive education programmes in the Schools of Business, Law and Arts. Established in 1975, the College quickly established an excellent reputation for teaching quality and standards, offering flexible and innovative learning opportunities that reflect and match the needs of students and employers.

Commitment to World Class Teaching

Over the last 40 years DBS has built a considerable reputation for the quality of its teaching. As an institution we focus our main research activity on the constant improvement of the learning experience of our students. Evidence of the success we have achieved has come in many different ways. One particular example of this is the success achieved by our students in the examinations of the professional accountancy bodies where over 1000 DBS students have achieved worldwide and national individual prize-winner success.

Internationally Recognised Education Experience

Over the last 40 years DBS has established a considerable international reputation for the quality of its programmes. This recognition has been achieved both at government level and on an individual student basis. The College has created a unique learning environment with students from over 70 countries participating in its programmes.

Student Centered Approach

In DBS we take a holistic view to college life. Academia should be integrated with a stimulating social scene. The work/study balance is something we regard at DBS as being important. ICT programme participants can avail of the full range of social, sports and developmental activities offered through our dedicated Student Services department. The appointed programme leader will also assist and facilitate students throughout their period of academic study.

Recognition and Accreditation

Our certificate, degree and postgraduate programmes are awarded by Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC). All of the above awards are recognised by the Department of Education, employers and all of the major higher education institutions for postgraduate study. Additionally, for those graduates wishing to seek professional qualifications, DBS relevant degrees are awarded recognition and exemption from professional bodies such as the Institute of Chartered Accountants in Ireland (ICAI), the Association of Chartered Certified Accountants (ACCA), the Chartered Institute of Management Accountants (CIMA), the Psychological Society of Ireland (PSI) and the Irish Association for Counselling and Psychotherapy (IACP).

Student Support Services

Feedback from students indicates that they value the student focus that our lecturers and support staff offer. At DBS, this is the key factor in our service delivery. We recognise that you may need different types of support as you progress through your studies, be it academic direction, career advice, mentoring or personal attention. We offer a comprehensive service in these areas to all our students.

Career and Personal Development Focused Education

All of our ICT Skills programmes have been designed and developed in collaboration with industry and professional bodies so that on graduation in addition to your academic qualifications, you will have the skills and knowledge for a successful career.

City Centre Location

A mere two minute walk from St. Stephens Green, the Luas and all main bus routes, DBS is truly in the heart of Dublin city. Our educational sites in the prime city centre locations of Aungier Street, George's Street, Balfe Street, and Dame Street are all within a few minutes walking distance of each other and provide students with access to all of the infrastructure capabilities of a vibrant modern capital city.

DBS can offer participants the following resources to assist with the success of the ICT Skills Programme:

- A dedicated Programme Leader who is responsible for the overall management and development of the programme and the management and support of participants on the Programmes.
- A range of learning support services to accommodate the participant such as; Careers Office, Employer Liaison Officer, Student Services office, Work Placements and State-of-the-Art Library and IT Facilities.
- A pool of qualified academics with extensive industry experience in all sectors who can provide participants with guidance and support in re-entering employment in their chosen sector.
- Established links with awarding bodies such as Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC), Liverpool John Moores University (LJMU) and Professional Bodies.
- Dublin city centre campuses located on Aungier Street, South Great Georges Street (Castle House), Balfe Street and Dame Street.
- The ability to provide the programme participants with e-learning support facilities, such as Moodle. By moving some parts of the programme online, lecturers can create a learning environment which enables better use of scheduled face-to-face time with adult learners enabling the development of more complex learning skills such as critical thinking, during face-to-face time.
- Online access to vast library resources.
- Strong connections with both indigenous and international organisations with whom we have worked with over the past 40 years. Customised courses developed for:



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Read What Our Graduates Have to Say

"The Higher Diploma in Science in Computing at DBS proved to be very valuable in gaining employment in the ICT sector. The course content was well organised and it covered all relevant ICT topics. What I enjoyed most about DBS was the people I met while I was there. The staff were very helpful and always willing to assist. The facilities are second to none and the library is equipped with all the latest technology and up to date reference material.

The best thing about this programme is the relationship between staff and students. Everyone is willing to share their knowledge and experience to help ensure everyone achieves their long term career goals. Thanks to this course, I have now commenced a full time permanent position with a leading ICT company."

Martin Neary, Higher Diploma in Science in Computing



"As a recent graduate of a Higher Diploma in Science in Computing from Dublin Business School, I would describe the course as intensive, challenging and highly rewarding.

The workload and commitment of the Higher Diploma in Science in Computing required a massive amount of dedication, hard-work and adaptability from each student. After its completion I now view choosing it as one of the best decisions I have ever made. Through completing the course I have obtained a position with a well-respected large multinational organisation. Without the course and Dublin Business School's contacts in the jobs market this would not have been possible. I know I still have a lot to learn to further progress in my new career but Dublin Business School has given me the confidence and foundations, to succeed through life-long learning."

Keith O'Brien, Higher Diploma in Science in Computing

Read What Our Graduates Have to Say

"The Higher Diploma in Science in Computing is an excellent industry supported course which has helped me to develop a wide range of highly desirable IT skills. While the workload on the course is highly intensive the opportunities and skills gained from its completion are highly recommended and offer the student the maximum possibility of employment on its completion. The staff and lectures offer great support during the course and have an excellent knowledge of the subject areas. Overall a great experience and I would like to thank everyone at DBS."

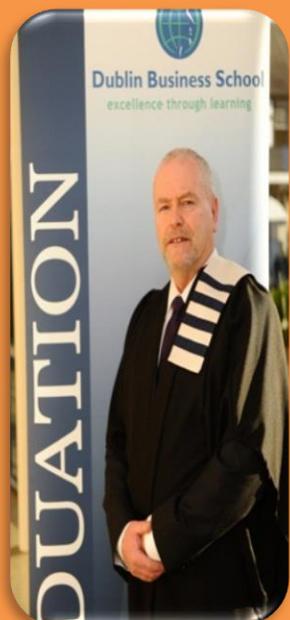
Kieran O'Connell, Higher Diploma in Science in Computing

"The Higher Diploma in Science in Computing was very focused on preparing the student for the workplace and the subjects proved to be invaluable within the company that I was placed in for my internship. The projects which I undertook during the course, both individual and group, were most useful in consolidating the learning experience.

The Microsoft Technical Associate (MTA) accreditation also added value to the course as I had been placed with an IT company which is a Microsoft Gold Partner that customises Microsoft Dynamics CRM systems. I gained great work experience during the placement and I was rewarded with a job offer at the end of the internship.

This course was a great opportunity for me to make a career transition into the world of IT and has given me the skills I need to be successful."

Ray Sherlock, Higher Diploma in Science in Computing



Higher Diploma in Science in Computing (Software Development)

Full-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	10 months incorporating 3 month placement
Study Mode	Full-Time
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Higher Diploma in Science in Computing (Software Development)

Part-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	2 Academic Years (September - May)
Study Mode	Part-Time, 2 Evenings Per Week
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Introduction

Dublin Business School (DBS) in conjunction with Microsoft Ireland, their Partner Network and other relevant industry partners have developed an intensive Full and Part-Time Level 8 conversion award for a Postgraduate Higher Diploma in Science in Computing (Software Development). This programme is specifically designed to address the demand for graduates with ICT skills in areas including Software Development and Software Engineering.

Programme Structure & Content

The full-time programme is intentionally intensive in nature, with teaching and laboratory activities timetabled between 9.00am and 5.30pm five days per week to reflect the working week. The programme contains a deliberate mix of professional certification in relevant industry skills, personal development and academic content. The learner will spend a significant portion of each day in the laboratory environment. There are three distinct elements to the programme, comprising two taught academic semesters and a minimum 3 month period of work placement (full-time).

The part-time programme will run over 2 academic years, 2 evenings per week and over 4 semesters with some weekends per semester.

In **Semester 1** students will be provided with a significant grounding in core computing modules.

Core modules for Semester 1 are:

- Principles of Programming
- Database Design and Development
- Information Systems Development & Management
- Object-Oriented Programming
- Web Design and Development
- Operating Systems & Networks

In Semester 2 students will pursue a specialisation stream in Software Development. This element is a focused set of modules and project work designed to bring candidates quickly to the industry entry standard for graduates in their chosen field of specialisation.

Core modules for Semester 2 are:

- Advanced Programming
- Web and Cloud Application Development
- Mobile Application Development
- Project

Upon completion of the above full time students will engage in a minimum 3 month work placement * (Subject to academic performance)

Upon successful completion of the taught element of the course, participants will enter the work placement element of the conversion programme. This element will enable students to gain relevant experience and furthermore will allow employers to field test potential recruits. Part-time students will complete an industry based credit bearing project.

Personal Development Programme

To complement the academic programme, learners will follow a skills based Personal Development Programme (PDP). The programme has been designed in collaboration with industry to ensure that graduates are able to demonstrate the personal skills and aptitudes employers have highlighted as requirements and to assist graduates of the programme to integrate effectively into the work place. The PDP will be delivered across all three semesters.

Programme Aims & Objectives

According to the National Skills Bulletin (2013) and as outlined in the Forfas/EGFSN (2013) report 'Addressing Future Demand for High-level ICT Skills', research findings indicate that the immediate skills recruitment difficulties being experienced relate primarily to positions requiring high level ICT skills at Level 8 or above. The demand in terms of positions includes Software Engineers for the design and development of applications and systems. Specific skillsets required include: Programming languages – Java, JavaScript, C#, C++, Visual Basic, .Net, Objective-Oriented Programming (OOP). Web Development – Understanding of Web 2.0 development, XML, Microsoft ASP.Net, Personal homepage Tools (PHP), Microsoft SharePoint family of software products and other web page development skills (HTML, CSS, XHHTML).

Following completion of the Higher Diploma in Science in Computing (Software Development), participants will be able to:

- Design and build mobile applications using Google's Android open-source platform
- Design, implement, test & document advanced Object-Oriented Programs
- Apply advanced data structures
- Construct event-driven Graphical User Interfaces
- Evaluate platforms in order to create, design and develop a server side web application with database integration
- Demonstrate proficiency in document mark-up languages particularly XML
- Develop Web-based applications using .NET framework and specifically ASP.NET

Teaching & Assessment

DBS teaching and learning strategies are intended to facilitate students to take ownership of, and responsibility for, their own learning in partnership with the academic faculty. A wide range of teaching and learning methods are used in the programme to ensure all learning styles are accommodated. Methods will include formal lectures, seminars,

workshops, lab tutorials, on-line video demonstrations, and presentations that will emphasise student participation and application to case studies and relevant computing and business issues.

The focus of the programme is on the application of learning to the real-life environment and therefore a significant proportion of this programme is computer based. Learners will be required to practice taught skills and elements of the course via self directed learning. Intellectual skills are developed through project work, tutorial work and coursework assignments. In addition to the accredited modules learners will be timetabled to participate in personal development activities. Learners will therefore gain the necessary additional applied skills in order to expedite their integration into the workplace.

Career Opportunities/Progression to Further Study

This programme is specifically designed to address the demand for graduates with ICT skills in areas including Software Development and Software Engineering. Career opportunities in the field include; Software Applications Developer, Software Engineer, Computer/Systems Support, Data Analyst and Database Developer.

Participants will gain relevant skills that employers respect and enable them to obtain employment in the ICT industry. A feature of the programme is the opportunity for the learner to engage in a work placement. The work placement provides learners with relevant work experience with an industry partner for a minimum period of three months. In addition to acquiring new skills, learners will have an opportunity to apply and reinforce the academic knowledge and practical, applied skills they have acquired during the taught element of the programme.

Upon successful completion of the programme, graduates of the Higher Diploma in Science in Computing will be eligible to apply for entry into specialist computing MSc programmes across the country. DBS offers its own MSc in Information Systems with Computing awarded by Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC).

DBS are also providing the participants on this programme with access to gain Professional Certification during and after completion of the programme. DBS have identified a number of suitable Microsoft Technology Associate (MTA) Certificates that directly relate to the areas of learning. This Professional Certification is intended to enhance the employability of the graduates of the programme.

Entry Requirements

To be considered for admission to this programme, applicants must hold a Primary Honours Degree (Level 8) in a cognate discipline from a recognised third level institution or equivalent qualification. In addition, an IELTS score of a minimum 6.0 or equivalent is required, where full-time study has been conducted in a language other than English or for applicants whose first language is not English.

Candidates will ideally be able to demonstrate technical or mathematical problem solving skills as part of previous programme learning. Typically holders of more technical, numerate degrees are likely to gain a higher ranking in any order of merit in selection for the programme.

Typical disciplines which would fall into this category would be:

- Engineering
- Architecture
- Mathematics
- Physics

Some candidates will also have gained a Level 8 qualification in a programme with a significant IT component and/or significant numerate element. Such programmes vary greatly in mathematical and information technology content and assessment would be by detailed examination of subject content, assessments and syllabi.

Typical programmes which would fall into this category could include:

- Management Information Systems
- Accounting
- Business
- Management

Eligibility

For the one-year full-time ICT Conversion courses you may be eligible irrespective of your employment status (i.e. whether you are employed or unemployed) and regardless of whether you are in receipt of income support from the Department of Social Protection.

For the two year part-time ICT Conversion courses you may be eligible if you are employed. If you are unemployed and in receipt of a jobseekers payment (including Farm Assist and Qualified Adults of Working Age) you are not eligible for the two year ICT Conversion courses. However, if you are in receipt of other social protection payments, e.g. One Parent Family or Disability Allowance, you may be eligible for the two year part-time Conversion programmes

Recognition of Prior Learning (RPL)

Learners may also access this course on the basis of recognition of prior learning or by assessment of prior experiential learning/informal learning. For this particular programme applicants will be considered on a case by case basis based upon their educational record, work experience, their ability to demonstrate technical or mathematical problem solving skills and a capacity to successfully participate in the programme.

Application Procedure

Apply online via the Springboard portal www.springboardcourses.ie

Higher Diploma in Science in Computing (Web & Cloud Technologies) Full-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	10 months incorporating 3 month placement
Study Mode	Full-Time
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Higher Diploma in Science in Computing (Web & Cloud Technologies) Part-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	2 Academic Years (September -May)
Study Mode	Part-Time, 2 Evenings Per Week
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Introduction

DBS in conjunction with Microsoft Ireland, their Partner Network and other Industry Partners have developed an intensive Full and Part-Time Level 8 conversion award for a Postgraduate Higher Diploma in Science in Computing (Web & Cloud Technologies). This programme is specifically designed to assist participants in obtaining jobs such as Web Developers, Cloud Support Consultants or Analysts.

Programme Structure & Content

The full-time programme is intentionally intensive in nature, with teaching and laboratory activities timetabled between 9.00am and 5.30pm five days per week to reflect the working week. The programme contains a deliberate mix of professional certification in relevant industry skills, personal development and academic content. The learner will spend a significant portion of each day in the laboratory environment. There are three distinct elements to the programme, comprising two taught academic semesters and a minimum 3 month period of placement/internship.

The part-time programme will run over 2 academic years, 2 evenings per week and over 4 semesters with some weekends per semester.

In Semester 1 students will be provided with a significant grounding in core computing modules.

Core modules for semester 1 are:

- Principles of Programming
- Database Design & Development
- Information Systems Development & Management
- Object-Oriented Programming
- Web Design & Development

- Operating Systems and Networks

In **Semester 2** students will pursue a specialisation stream in Web & Cloud Technologies. This element is a focused set of modules and project work designed to bring candidates quickly to the industry entry standard for graduates in their chosen field of specialisation.

Core modules for semester 2 are:

- Cloud Infrastructure and Virtualisation
- Web and Cloud Application Development
- Advanced Web Technologies
- Project

Upon completion of the above full time students will engage in a minimum 3 month work placement

Upon successful completion of the taught element of the course, full-time participants will enter the work placement element of the conversion programme. This element will enable students to gain relevant experience and furthermore will allow employers to field test potential recruits. Part-time students will complete an industry based credit bearing project.

Programme Aims & Objectives

Recent work carried out by the Expert Group on Future Skills Needs and as outlined in the National Skills Bulletin (July 2011) has identified ICT skills demand for Computer Software Engineers with specialist knowledge in Cloud Computing & Web Development. According to the National Skills Bulleting (2013) the demand for IT skills in Cloud Computing is forecasted to be strong as organisations introduce new or migrate existing systems to increasingly sophisticated online and/or cloud platforms. Strong demand is also confirmed in recent job announcements over the last year, particularly in the areas of cloud computing (e.g. Feed Henry, Zendesk), industry specific software applications development (e.g. food manufacturing (Opensky) and IT security (e.g. FireEye, Zurich IT & Security Services).

This programme has been designed to address the significant gaps as identified by Microsoft Ireland, their Partner Network and other industry and enterprise partners. The intensive nature of the first semester will also develop the organisational skills of the learner and their time management and administrative skills. The second semester continues with the intensive development of the learner and provides an opportunity for the learner to specialise in the Web and Cloud Technology field.

Following completion of the Higher Diploma in Science in Computing (Web & Cloud Technologies), participants will be able to:

- Demonstrate an understanding of how underlying virtualization technologies function
- Critically evaluate multi-tenancy and deployment models
- Evaluate data storage models & have up-to-date knowledge on established and emerging cloud technologies
- Evaluate platforms in order to create, design and develop a server side web application with database integration
- Demonstrate proficiency in document mark-up languages particularly XML
- Develop Web-based applications using .NET framework and specifically ASP.NET
- Design, configure & manage a switched network. Implementing a hierarchical structure, loop avoidance, switch convergence and VLANS
- Design & Implement an IP addressing scheme for a network.
- Understand and describe the operations & functions of a router & its critical role within networking.
- Demonstrate in-depth understanding of WAN technologies, from Frame Relays to MPLS to Metro Ethernet

Teaching & Assessment

DBS teaching and learning strategies are intended to facilitate students to take ownership of, and responsibility for, their own learning in partnership with the academic faculty. A wide range of teaching and learning methods are used in the programme to ensure all learning styles are accommodated. Methods will include formal lectures, seminars, workshops, lab tutorials, on-line video demonstrations, and presentations that will emphasise student participation and application to case studies and relevant computing and business issues.

The focus of the programme is on the application of learning to the real-life environment and therefore a significant proportion of this programme is computer based. Learners will be required to practice taught skills and elements of the course via self-directed learning. Intellectual skills are developed through project work, tutorial work and coursework assignments. In addition to the accredited modules learners will be timetabled to participate in personal development activities. Learners will therefore gain the necessary additional applied skills in order to expedite their integration into the workplace.

Career Opportunities/Progression to Further Study

This programme is specifically designed to assist participants in obtaining employment in the specialised field of Web & Cloud Technologies. Career opportunities in the field include Web Analysts, Cloud Administrators, Data Operations Engineer and Windows Administrators. This programme will provide a new entry point for participants to jumpstart their career aspirations. Participants will gain relevant skills that employers respect and enable them to obtain employment in the ICT industry. A feature of the programme is the opportunity for the learner to engage in a work placement. The work placement provides learners with relevant work experience with an industry partner for a minimum period of three months. In addition to acquiring new skills, learners will have an opportunity to apply and reinforce the academic knowledge and practical, applied skills they have acquired during the taught element of the programme.

Upon successful completion of the programme, graduates of the Higher Diploma in Science in Computing will be eligible to apply for entry into specialist computing MSc programmes across the country. DBS offers its own MSc in Information Systems with Computing awarded by Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC). Additionally, participants may also want to progress with Microsoft Certification examinations. Learners will be encouraged to undertake additional MTA and MCTS certification to enhance their employability.

Entry Requirements

To be considered for admission to this programme, applicants must hold a Primary Honours Degree (Level 8) in a cognate discipline from a recognised third level institution or equivalent qualification. In addition, an IELTS score of a minimum 6.0 or equivalent is required, where full-time study has been conducted in a language other than English or for applicants whose first language is not English.

Candidates will ideally be able to demonstrate technical or mathematical problem solving skills as part of previous programme learning. Typically holders of more technical, numerate degrees are likely to gain a higher ranking in any order of merit in selection for the programme.

Typical disciplines which would fall into this category would be:

- Engineering

- Architecture
- Mathematics
- Physics

Some candidates will also have gained a Level 8 qualification in a programme with a significant IT component and/or significant numerate element. Such programmes vary greatly in mathematical and information technology content and assessment would be by detailed examination of subject content, assessments and syllabi.

Typical programmes which would fall into this category could include:

- Management Information Systems
- Accounting
- Business
- Management

Eligibility

For the one-year full-time ICT Conversion courses you may be eligible irrespective of your employment status (i.e. whether you are employed or unemployed) and regardless of whether you are in receipt of income support from the Department of Social Protection.

For the two year part-time ICT Conversion courses you may be eligible if you are employed. If you are unemployed and in receipt of a jobseekers payment (including Farm Assist and Qualified Adults of Working Age) you are not eligible for the two year ICT Conversion courses. However, if you are in receipt of other social protection payments, e.g. One Parent Family or Disability Allowance, you may be eligible for the two year part-time Conversion programmes

Recognition of Prior Learning (RPL)

Learners may also access this course on the basis of recognition of prior learning or by assessment of prior experiential learning/informal learning. For this particular programme applicants will be considered on a case by case basis based upon their educational record, work experience, their ability to demonstrate technical or mathematical problem solving skills and a capacity to successfully participate in the programme.

Application Procedure

Apply online via the Springboard portal www.springboardcourses.ie

Higher Diploma in Science in Computing (IT Infrastructure & Networking) Full-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	10 months incorporating 3 month placement
Study Mode	Full-Time
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Higher Diploma in Science in Computing (IT Infrastructure & Networking) Part-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	2 Academic Years (September - May)
Study Mode	Part-Time, 2 Evenings Per Week
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Introduction

Dublin Business School (DBS) in conjunction with Microsoft Ireland, their Partner Network and other relevant industry partners have developed an intensive Full and Part-Time Level 8 conversion award for a Postgraduate Higher Diploma in Science in Computing (IT Infrastructure & Networking).

Programme Structure & Content

The full-time programme is intentionally intensive in nature, with teaching and laboratory activities timetabled between 9.00am and 5.30pm five days per week to reflect the working week. The programme contains a deliberate mix of professional certification in relevant industry skills, personal development and academic content. The learner will spend a significant portion of each day in the laboratory environment. There are three distinct elements to the programme, comprising two taught academic semesters and a minimum 3 month period of work placement.

The part-time programme will run over 2 academic years, 2 evenings per week and over 4 semesters with some weekends per semester.

In Semester 1 students will be provided with a significant grounding in core computing modules.

Core modules for Semester 1 are:

- Principles of Programming
- Database Design and Development
- Information Systems Development & Management
- IT Project Management
- Web Design and Development
- Operating Systems & Networks

In **Semester 2** students will pursue a specialisation stream in IT Infrastructure & Networking. This element is a focused set of modules and project work designed to bring candidates quickly to the industry entry standard for graduates in their chosen field of specialisation.

Core modules for Semester 2 are:

- Cloud Infrastructure and Virtualisation
- System Administration
- Advanced Networks and Security
- Project

Upon completion of the above full time students will engage in a minimum 3 month work placement * (Subject to academic performance)

Upon successful completion of the taught element of the course, participants will enter the work placement element of the conversion programme. This element will enable students to gain relevant experience and furthermore will allow employers to field test potential recruits. Part-time students will complete an industry based credit bearing project.

Personal Development Programme

To complement the academic programme, learners will follow a skills based Personal Development Programme (PDP). The programme has been designed in collaboration with industry to ensure that graduates are able to demonstrate the personal skills and aptitudes employers have highlighted as requirements and to assist graduates of the programme to integrate effectively into the work place. The PDP will be delivered across all three semesters.

Programme Aims & Objectives

Recent work carried out by the Expert Group on Future Skills Needs and as outlined in the National Skills Bulletin (2013) has identified ICT skills demand for Network Specialists & Engineers. In order to address and respond to this ICT skill shortage, DBS have developed a Higher Diploma in Science in Computing (IT Infrastructure and Networking). Specific skills include Server Message Block, Wireless sensor testing, collaboration functions, router configuration and management, experience with scripting language Java, C+ and network configurations.

Closely linked with this specialist stream, is the increasing demand for ICT security technologies and skills. As outlined in the EGFSN/Forfas report (Nov 2013), it is estimated that spending on IT security products in 2013 was around €25 billion globally and growing at more than 7% over the next three years. The move towards cloud solutions have strengthened the growing need to invest in security as sensitive information may no longer reside on dedicated hardware and the mode of access changes. The ‘Computer Security’ module embedded on the IT Infrastructure stream with the core concepts of computer security includes various tools and techniques for vulnerability discovery and threat analysis. Participants also develop best practice tools and techniques, standards and trends related to computer security.

Following completion of the Higher Diploma in Science in Computing (IT Infrastructure & Networking) participants will be able to:

- Design, configure & manage a switched network. Implementing a hierarchical structure, loop avoidance, switch convergence and VLANS.
- Design & Implement an IP addressing scheme for a network.
- Understand and describe the operations & functions of a router & its critical role within networking.
- Demonstrate in-depth understanding of WAN technologies, from Frame Relays to MPLS to Metro Ethernet.
- Demonstrate basic system administration tasks such as user management & modifying file permissions.

- Write & execute UNIX/Linux bash scripts which perform common system administration tasks.
- Demonstrate advanced knowledge in the area of virtualization & how underlying virtualization technologies function.
- Identify & analyse several security threats to given computer applications.
- Specify and apply security requirements to counter security problems for given applications.
- Identify several security tools and techniques to develop appropriate security mechanisms for the protection of computer systems.

Teaching & Assessment

DBS teaching and learning strategies are intended to facilitate students to take ownership of, and responsibility for, their own learning in partnership with the academic faculty. A wide range of teaching and learning methods are used in the programme to ensure all learning styles are accommodated. Methods will include formal lectures, seminars, workshops, lab tutorials, on-line video demonstrations, and presentations that will emphasise student participation and application to case studies and relevant computing and business issues.

The focus of the programme is on the application of learning to the real-life environment and therefore a significant proportion of this programme is computer based. Learners will be required to practice taught skills and elements of the course via self-directed learning. Intellectual skills are developed through project work, tutorial work and coursework assignments. In addition to the accredited modules learners will be timetabled to participate in personal development activities. Learners will therefore gain the necessary additional applied skills in order to expedite their integration into the workplace.

Career Opportunities/Progression to Further Study

This programme is specifically designed to address the demand for graduates with ICT skills in IT Infrastructure & Networking. Career opportunities in the field include; Network Specialists, IT Support Engineers, Applications Support, Software Support Technician and Network Engineers. Participants will gain relevant skills that employers respect and enable them to obtain employment in the ICT industry. A feature of the programme is the opportunity for the learner to engage in a work placement. The work placement provides learners with relevant work experience with an industry partner for a minimum period of three months. In addition to acquiring new skills, learners will have an opportunity to apply and reinforce the academic knowledge and practical, applied skills they have acquired during the taught element of the programme.

Upon successful completion of the programme, graduates of the Higher Diploma in Science in Computing will be eligible to apply for entry into specialist computing MSc programmes across the country. DBS offers its own MSc in Information Systems with Computing awarded by Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC). DBS are also providing the participants on this programme with access to gain Professional Certification during and after completion of the programme. DBS have identified a number of suitable Microsoft Technology Associate (MTA) Certificates that directly relate to the areas of learning. This Professional Certification is intended to enhance the employability of the graduates of the programme.

Entry Requirements

To be considered for admission to this programme, applicants must hold a Primary Honours Degree (Level 8) in a cognate discipline from a recognised third level institution or equivalent qualification. In addition, an IELTS score of a minimum 6.0 or equivalent is required, where full-time study has been conducted in a language other than English or for applicants whose first language is not English.

Candidates will ideally be able to demonstrate technical or mathematical problem solving skills as part of previous programme learning. Typically holders of more technical, numerate degrees are likely to gain a higher ranking in any order of merit in selection for the programme.

Typical disciplines which would fall into this category would be:

- Engineering
- Architecture
- Mathematics
- Physics

Some candidates will also have gained a Level 8 qualification in a programme with a significant IT component and/or significant numerate element. Such programmes vary greatly in mathematical and information technology content and assessment would be by detailed examination of subject content, assessments and syllabi.

Typical programmes which would fall into this category could include:

- Management Information Systems
- Accounting
- Business
- Management

Eligibility

For the one-year full-time ICT Conversion courses you may be eligible irrespective of your employment status (i.e. whether you are employed or unemployed) and regardless of whether you are in receipt of income support from the Department of Social Protection.

For the two year part-time ICT Conversion courses you may be eligible if you are employed. If you are unemployed and in receipt of a jobseekers payment (including Farm Assist and Qualified Adults of Working Age) you are not eligible for the two year ICT Conversion courses. However, if you are in receipt of other social protection payments, e.g. One Parent Family or Disability Allowance, you may be eligible for the two year part-time Conversion programmes

Recognition of Prior Learning (RPL)

Learners may also access this course on the basis of recognition of prior learning or by assessment of prior experiential learning/informal learning. For this particular programme applicants will be considered on a case by case basis based upon their educational record, work experience, their ability to demonstrate technical or mathematical problem solving skills and a capacity to successfully participate in the programme.

Application Procedure

Apply online via the Springboard portal www.springboardcourses.ie

Higher Diploma in Science in Data Analytics

Full-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	10 months incorporating 3 month placement
Study Mode	Full-Time
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Higher Diploma in Science in Data Analytics

Part-Time

Awarding Body	Quality & Qualifications Ireland (QQI)
Duration	2 Academic Years (September - May)
Study Mode	Part-Time, 2 Evenings Per Week
Course Commencing	September 2016
Award Level	Level 8 NFQ
ECTS Credits	60

Introduction

Dublin Business School in conjunction with Microsoft Ireland, their Partner Network and other relevant industry partners have developed an intensive Full and Part-Time Level 8 Graduate Conversion programme leading to a Higher Diploma in Science in Computing in Data Analytics award. Ireland is likely to face an average increase in demand for high-level ICT skills of around 5% a year out to 2018 with the employment of ICT professionals anticipated to rise to just over 91,000.

The Higher Diploma in Science in Data Analytics will provide graduates with the theoretical and practical skills required to meet the demands of industry. The proposed programme will enable learners to apply those transferable skills developed as part of their original degree to specific IT and Data Analytics areas. The current and projected skills shortages are increasing the demand for graduates with a skillset that embeds new technologies with existing established core computing skills. Use and implementation of technologies are changing fast and therefore so are the demand for specific technology skills. A strong core technology education will form a good basis upon which skills in the current and future cutting edge technologies can be built.

Programme Structure & Content

This programme aims to provide graduates with the aforementioned skills, knowledge and competences in the area of data analytics. In semester 1, participants will undertake a broad immersive set of modules which include:

- Databases and business applications
- Programming essentials
- Statistics for data analytics
- Data warehousing and business intelligence
- Programming for big data
- Tools for data analytics

In semester 2, participants are equipped to take data visualization and communications, data and web mining, advanced data analytics and a project.

The overall aim of the programme is to provide graduates with the underpinning academic knowledge to enhance their educational and employment opportunities and to achieve the award of a Higher Diploma in Science in Computing in Data Analytics. In addition, a feature of the programme is the opportunity for the learner to engage in a work placement. This element provides learners with relevant work experience with an industry partner for a minimum period of three months. In addition to acquiring new skills, learners will apply and reinforce the knowledge and practical skills they have acquired during the taught element of the programme.

In Semester 3 (full-time only) students will engage in a minimum 3 month work placement

Upon successful completion of the taught element of the course, full-time participants will enter the work placement element of the conversion programme. This element will enable students to gain relevant experience and furthermore will allow employers to field test potential recruits. Part-time students will complete an industry based credit bearing project.

The part-time programme will run over 2 academic years, 2 evenings per week and over 4 semesters with some weekends per semester.

Programme Aims & Objectives

Teaching & Assessment

DBS teaching and learning strategies are intended to facilitate students to take ownership of, and responsibility for, their own learning in partnership with the academic faculty. A wide range of teaching and learning methods are used in the programme to ensure all learning styles are accommodated. Methods will include formal lectures, seminars, workshops, lab tutorials, on-line video demonstrations, and presentations that will emphasise student participation and application to case studies and relevant computing and business issues.

The focus of the programme is on the application of learning to the real-life environment and therefore a significant proportion of this programme is computer based. Learners will be required to practice taught skills and elements of the course via self-directed learning. Intellectual skills are developed through project work, tutorial work and coursework assignments. In addition to the accredited modules learners will be timetabled to participate in personal development activities. Learners will therefore gain the necessary additional applied skills in order to expedite their integration into the workplace.

Career Opportunities/Progression to Further Study

There is a global shortage of the skilled professionals required to fill direct high-end jobs in this area and the report, Assessing The Demand For Big Data And Analytics Skills, identifies measures to build up the Big Data and analytics talent pool in Ireland over the period up to 2020 in line with enterprise demand. The 21,000 potential job vacancies for skilled professionals could arise under the report's high growth scenario, from both expansion and replacement demand in the period up to 2020 - comprising 3,630 for deep analytical roles and 17,470 for big data savvy roles. Role types that may be suitable for graduates include:

- Data Analysts/Engineers
- Data Analytics Manager
- Software Engineers
- Hadoop Developers

Upon successful completion of the programme, graduates of the Higher Diploma in Science in Computing will be eligible to apply for entry into specialist computing MSc programmes across the country. DBS offers its own MSc in Information Systems with Computing awarded by Quality & Qualifications Ireland (QQI) - formerly Higher Education & Training Awards Council (HETAC). Additionally, participants may also want to progress with Microsoft Certification examinations. Learners will be encouraged to undertake additional MTA and MCTS certification to enhance their employability.

Entry Requirements

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Dublin Business School reserves the right to alter or withdraw any of the modules or programmes described in this document. While every effort has been made to ensure the information contained in this document is correct, the College is not liable for any errors and omissions.

