BSc (Honours) Computing and IT
Distance learning degree qualification

GLOBAL STUDY GLOBAL RECOGNITION
Qualification details

Computing and IT skills have become fundamental to the way we live, work, socialise and play. This degree course opens up the world of technology and an array of exciting careers in a wide range of sectors – from finance, government, health, education and the ‘Third Sector’, to business, gaming and commerce.

You may want to become a confident user and manager of information technologies: to administer and manage network or database systems; or to develop new software solutions to meet specific market or organisational needs. If you’re currently employed, there are valuable opportunities to incorporate work-related learning that builds on your existing role and equips you for new responsibilities.

Career relevance and employability

This degree course is relevant if you already work, or would like to work, with computing and IT systems and are looking for a qualification that gives you a sound grasp of the principles of hardware-based, software-based, or systems-based technologies – along with an ability to apply your knowledge and skills in a broad range of industries and organisations. Depending on your choice of modules, you’ll gain a good preparation for employment in software engineering, communications, networks or web technologies.

Designing, developing and deploying IT systems are not solitary activities: they require outstanding teamwork and ‘people management’ skills, along with knowledge of how businesses and organisations operate. The BSc (Honours) Computing and IT will give you the opportunity to gain experience of working in a team to tackle an appropriate development task. You’ll also undertake a project to demonstrate your ability to undertake a substantial piece of work on a topic you’ve selected.

You’ll gain a range of highly valuable transferable skills in: communication, time management, numeracy and analysing and solving problems.

Entry requirements

There are no formal entry requirements to study this degree, although you will need to have a proficiency in English as all course material, exams and tutor support is in English.

Credit for previous study elsewhere

If you have already completed some successful study at higher education level at another institution you may be able to transfer credit for this study and count it towards an Open University qualification. If you wish to apply to transfer credit you must do so as soon as possible, and before you register for your chosen qualification. If you are awarded credit for study completed elsewhere, you may find that you need to study fewer OU modules to complete your qualification with us.

Course duration

Typically it takes six years part-time study to complete this qualification, but you can take anything from four (full-time study equivalent) to 16 years.

Modules and pathways

As part of your registration you can choose a pathway. Pathways are different sets of module options, allowing you to specialise in certain subjects to complete your degree.

To complete your degree you need to achieve 360 credits; 120 credits at Level 1, 120 at Level 2, and 120 at Level 3; with each module being 30-60 credits.

There is currently only one pathway for this qualification available to international students:

> Software and solutions development pathway

The following pages provide a selection of modules you could study depending on the pathway chosen.

To see a complete list of modules within each pathway please go to www.openuniversity.edu and click on the Courses section to find your degree, and then select from the list of pathways shown to view the module options available.

For a full list of modules available, please refer to our website, www.openuniversity.edu.

Assessment:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>My digital life (TU100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits:</td>
<td>60 at Level 1</td>
</tr>
<tr>
<td>Assessment:</td>
<td>6 TMAs, 7 ICMA</td>
</tr>
</tbody>
</table>

While you’re learning about tomorrow’s technology why not help create it? My digital life takes you on a journey from the origins of information technology through to the familiar computers of today, and on to tomorrow’s radical technologies. You’ll get hands-on experience of the ubiquitous computing approaches that will become increasingly common over the next decade. You’ll also learn about the profound social and technological changes associated with information technology.

Using mathematics (MST121)

| Credits: | 30 at Level 1 |
| Assessment: | 5 TMAs, 1 CMA, 1 Examination |

This course shows how mathematics can be applied to answer some key questions from science, technology, and everyday life. You will study a range of fundamental techniques, including calculus, recurrence relations, matrices and vectors and statistics, and use integrated specialist mathematical software to solve problems.

Last presentation of this course will be October 2013. It will be replaced by MST124 which has its first presentation February 2014.

Discovering mathematics (MU123)

| Credits: | 30 at Level 1 |
| Assessment: | 5 TMAs, 5 CMAs |

This course will help you to integrate mathematical ideas into your everyday thinking and build your confidence in using and learning mathematics. You’ll cover statistical, graphical, algebraic, trigonometric and numerical concepts and techniques, and be introduced to mathematical modelling. Formal calculus is not included and you are not expected to have any previous knowledge of algebra.
Influential and strategic technologies, supporting a large variety of applications and services, both in the private and public sectors. There is a growing need for management and decision makers to gain a clearer understanding of the application development process, from planning through to deployment and maintenance. This course will give you an insight into architectures, protocols, standards, languages, tools and techniques; an understanding of approaches to more dynamic and mobile content; and demonstrate how you can analyse requirements, plan, design, implement and test a range of web applications.

**Designing applications with Visual Basic (M1264)**

**Credits:** 30 at Level 2

**Assessment:** 4 TMAs

This course in object-oriented programming will teach you how to design and write small applications using Visual Basic Express. Software applications discussed in the course range from a very simple traffic survey application, to more complex applications that are linked to a database. Roughly one third of the course consists of important practical Visual Basic Express programming exercises, using web-based units. You’ll also use printed course books that use a design language similar to Visual Basic (VB), to learn essential programming skills. You should be ready to study computing at Level 2 and ideally have some programming experience.

**Stage 3**

**Ebusiness technologies: foundations and practice (T320)**

**Credits:** 30 at Level 3

**Assessment:** 3 TMAs, 1 EMA

Ebusiness is booming as organisations strive to gain efficiencies through improved workflows, resource management, just-in-time provisioning and business relationships. This course explores the driving forces behind such developments, introducing fundamental technologies and protocols upon which new systems and services can be built – including Service Oriented Architectures (SOA), web services, XML, and associated security standards.

**Fundamentals of interaction design (M364)**

**Credits:** 30 at Level 3

**Assessment:** 4 TMAs, 1 Examination

From websites and phones to video games, ATM machines and drinks dispensers, interactive products are very much part of everyday life. But how many are easy, satisfying and enjoyable to use? Fundamentals of interaction design studies the factors, techniques, tools and theories that affect the design of such products. You’ll learn about the theory underlying interaction design, and acquire practical skills that will equip you to analyse, design, and evaluate the interactive products you use every day.

**Developing concurrent distributed systems (M362)**

**Credits:** 30 at Level 3

**Assessment:** 3 TMAs, 1 Examination

The computing systems that support any large enterprise now use concurrency and distribution. In this course, you’ll look at the theory and practice of developing such systems, and learn about the advanced use of Java – such as Java’s concurrency features and the layered approach for building large enterprise systems – using Java Enterprise Edition as a practical illustration. You’ll also examine heterogeneous and mobile systems and security.

**Software engineering with objects (M363)**

**Credits:** 30 at Level 3

**Assessment:** 3 TMAs, 1 Examination

Designing, building and testing software systems can be a complicated process, so where do you begin? This course will provide you with the intellectual tools to make such tasks easier. Building on Software development with Java (M256), you’ll examine the disciplined approach needed to satisfy all user requirements and expectations. Using CASE tools, you’ll study topics including analysis and design in UML and managing the software development process. You will also explore how systems can be delivered in a timely and economical manner and be resilient to changes introduced during their operational lifetime.

**Natural and artificial intelligence (M366)**

**Credits:** 30 at Level 3

**Assessment:** 4 TMAs, 5 ICAs, 1 Examination

Don’t expect a conventional computing course with this one! It deals with one of humanity’s oldest dreams: creating machines with powers and mental abilities similar to our own. You’ll examine work at the forefront of research in computing, where ideas from biology are inspiring computer scientists to find new solutions to old problems – particularly in the quest to build truly intelligent computer systems. The course begins with a survey of traditional and modern approaches to artificial intelligence, bringing out the concepts that underlie them, and then explores the theory and applications of two classes of system inspired by biology: neural networks and evolutionary computation.

**Relational databases: theory and practice (M359)**

**Credits:** 30 at Level 3

**Assessment:** 3 TMAs, 1 EMA

This advanced computing course offers perspectives on relational databases. It introduces database management systems and the facilities required to store and access large collections of data in a shared user environment. This is followed by a theory of relations, underpinning topics such as data modelling and database architecture; the database language SQL; and the development of a practical database system. Also considered are issues surrounding the on-going development and application of relational database technologies, including the role of JAVA and XML.

**Technologies for digital media (T325)**

**Credits:** 30 at Level 3

**Assessment:** 4 TMAs, 1 EMA

Downloading mp3 music files; exchanging digital photos; reading, watching and listening to news and entertainment on the web or your mobile phone … digital technologies are changing the way we conduct our private, social and business lives, and transforming our experience of media out of all recognition. This course investigates how this has come about, looking at the technologies behind digital media as well as some of the social, ethical and legal issues they raise.

**The computing and IT project (TM470)**

**Credits:** 30 at Level 3

The computing and IT project enables you to explore computing, information and communications technologies in substantial depth and it is the compulsory project module for our computing and IT qualifications. It offers you practical experience of independent learning and reflective practice. You will apply advanced principles and techniques to produce a solution to a problem which you have defined and write up your experience and findings in a substantial report.

For more information and to register go to www.openuniversity.edu, or call +44 845 241 6555
Can I study in any country? This course is not available in all countries. Please check the Course Finder menu at www.openuniversity.edu to see what courses are available in your country.

Is an OU qualification recognised in my country? An OU degree is equal in academic standard to a degree from any other British university. The University is subject to the same quality assurance procedures, through the Quality Assurance Agency (QAA), as all other British universities, and uses external assessors and examiners to ensure comparability of standard and level in its courses. A leaflet is available on how you can apply for formal recognition in your country. To download the leaflet, please go to www.openuniversity.edu/brochures/recognition.pdf.

What tutor support will I receive? The OU excels in its unrivalled support for students. You’ll have email and online support from a tutor and you will be able to discuss your study in online tutor group discussions, using our customised learning environment. Our community websites Platform and OpenLearn offer a different perspective on your subject, and a huge range of OU resources on websites Platform and OpenLearn offer a different perspective on your subject, and a huge range of OU resources on

Can I count previous study towards an OU qualification? Any higher-education level studies you’ve successfully completed elsewhere may count towards your OU degree or other qualification. We enable you to do this by awarding you a certain amount of ‘transferred credit’. By transferring credit gained from previous study, you can reduce the amount you need from OU study to achieve your qualification. For more information please go to www.openuniversity.edu.

How do you work towards a qualification? We measure the size of our qualifications in credits – an honours degree is 360 credits, made up of three 120-credit stages. Each stage is made up of a number of modules which cover different parts of the subject. Modules are also measured in credits and are set at different ‘levels’. Levels give an indication of a module’s relative complexity and/or depth of learning. Most modules are worth either 30 or 60 credits and are set at Levels 1, 2 and 3, which roughly equates to studying in the first, second and third year at a campus-based university. So for a typical three-stage honours degree you would study:

- 120 credits at Stage 1, taking modules worth 30 or 60 credits at Level 1
- 120 credits at Stage 2, taking modules worth 30 or 60 credits at Level 2
- 120 credits at Stage 3, taking modules worth 30 or 60 credits at Level 3.

In the example given above, each stage could consist of two 60-credit modules or one 60-credit module and two 30-credit modules, or four 30-credit modules.

How long does it take? Our qualifications are designed to be flexible. So if you want to vary the amount of time you spend studying, you can. The table below is a guide on the time required, but call us today to discuss how you can vary the study intensity and therefore the time taken to complete your course.

<table>
<thead>
<tr>
<th>Undergraduate qualifications</th>
<th>Credits required</th>
<th>Time required to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate of higher education (Cert HE)</td>
<td>120</td>
<td>1 years full-time study</td>
</tr>
<tr>
<td>Diploma of higher education (Dip HE)</td>
<td>240</td>
<td>2 years full-time study</td>
</tr>
<tr>
<td>BSc degree with honours</td>
<td>360</td>
<td>3-4 years full-time study</td>
</tr>
</tbody>
</table>

How much will it cost? If you are studying with us for the first time our standard fee for 2012/2013 is £5,000 – based on 120 credits of study – which is equivalent to a year’s full-time study at a campus-based university. Of course you don’t have to study 120 credits a year and the price you pay will be proportionate to the standard fee. So, for example, if you only study 60 credits a year, you will pay 50 per cent of the standard fee.

<table>
<thead>
<tr>
<th>Credit studied each year</th>
<th>Percentage of standard fee</th>
<th>Cost per year</th>
<th>Time taken to complete a 360-credit honours degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 credits a year</td>
<td>100%</td>
<td>£5,000</td>
<td>3 years full-time study</td>
</tr>
<tr>
<td>60 credits a year</td>
<td>50%</td>
<td>£2,500</td>
<td>6 years part-time study</td>
</tr>
</tbody>
</table>

*For illustrative purposes only – in most cases you can vary the number of credits taken per year and therefore the time taken to complete the course. Please note: prices are approximate and subject to change. Visit our website or call us for latest details.

When can I start? To give you more opportunities to start, most qualifications have two intakes a year – October and February. To start in October 2013, for example, you need to register no later than 10th September 2013.

What payment options are there? Your payment options include spreading the cost over monthly instalments with our own affordable student budget account, OUSBA (for certain EU countries). For more information please go to www.open.ac.uk/ousba.

Can I meet and network with other students? Definitely – when you start with the OU you automatically become a member of the Open University Student Association (OUSA). OUSA also runs a popular student forum site. For more information, go to www.ousa.org.uk. Once you have gained your qualification, you can join the OU Alumni Association, our vibrant and active alumni community with 280,000 members worldwide. You will enjoy many membership benefits, including regular newsletters, good networking opportunities and access to the alumni website.

How is my privacy protected? We record your personal information when you contact us and use this to manage registration, study, examination and other services. When you register, we’ll tell you more about how we process and use your personal information.

When should I apply? Apply as early as you can – particularly if you wish to claim for credit for previous study. Registration open dates are shown in the Courses section at www.openuniversity.edu.

For more information and to register go to www.openuniversity.edu, or call +44 845 241 6555.
What do I need to do next?

It takes just 2 simple steps.

Begin the process to secure your place. Here’s how easy it is.

1. Register now

Go to www.openuniversity.edu, select the Courses section and the degree you require. You will then be asked to select a pathway to register. (Pathways are different selections of course modules to complete your degree.)

Alternatively call us on +44 845 241 6555.

Don’t worry, you don’t need to pay anything at this Level.

As soon as you have registered you’ll get an email confirmation which contains your login details.

2. Choose your first module, make payment to enrol

Before you start studying you will need to choose and register on your first modules and arrange payment; instructions for this will be emailed to you.

Once complete you will officially be an Open University student – welcome!