Nottingham Trent University Course Specification

	Basic Course Information	
1.	Awarding Institution:	Nottingham Trent University
2.	School/Campus:	School of Science and Technology/Clifton
3.	Final Award, Course Title and Modes of Study:	BSc (Hons) Information and Communications Technology / Full-time or Sandwich
4.	Normal Duration:	Full-time 3 years / Sandwich 4 years
5.	UCAS Code:	GH56 BSc/ICT

6. Overview and general educational aims of the course

The BSc (H) Information and Communications Technology degree is aimed at providing the essential knowledge and skills necessary to advance your career into the field of ICT. The advances being made within the electronic industry will revolutionise the way we live over the coming years. As a graduate of this course, you will be part of the ICT revolution by defining the way in which we interact and communicate in the future.

The course will provide theoretical explanations as well as practical laboratory-style sessions to develop the key skills required for the industry. You will study the principles of communication and thus gain a comprehensive understanding of the transfer of information from a source to a destination.

The curriculum provides skills development for your progression into the world of employment. These transferable skills will also enable you to adapt to the ever-changing market climate and progress with your career.

The salaried placement year is an important feature of the course. It is optional, but if chosen it will give you a distinct advantage on graduating, and we have an excellent placements office to provide support in finding a placement that is right for you.

Graduates of this course will be well placed to address the internationally recognised skills shortage in the ICT design, implementation, and support industries; and will be suitable for employment in positions requiring the knowledge of information systems, software and application development, image processing, human machine interface design, rich media and telecommunications.

In brief the programme aims to:

- Equip you with the knowledge and skills for a range of careers in technology and computer-based industry.
- Equip you with the expertise in the key areas of information systems, rich media, mobile communication and computer networks.

- Enable you to develop a range of transferable skills in preparation for general graduate employment and an ever-changing job market
- Provide you with the foundation for postgraduate study

Flexibility is built into the course design with options for 1/6 of study at level 6. Options include business and other computing modules, work-based learning or communicating science and technology. Also, the first year (Level 4) of the course is common with BSc (Hons) Information Systems, BSc (Hons) Digital Media Technology and BSc (Hons) Computing. This will allow for transfer between any of these courses at the end of the first year.

7. **Course outcomes**

Course outcomes describe what you should know and be able to do by the end of your course if you take advantage of the opportunities for learning that we provide.

Knowledge and understanding

By the end of the course you should be able to:

- Demonstrate knowledge of the fundamental characteristics and constituents of information systems and the way information is processed, stored and communicated (B).
- Apply engineering principles (including analysis, design and evaluation) to the solution of practical information processing and communication problems (B).
- Describe the role of the ICT professional in the development of information-based systems (B).
- Appraise the context and application of information and communication systems in industry.
- Contribute to the analysis and solution of research and development problems in information-based systems.

Skills, qualities and attributes

By the end of the course you should be able to:

- Perform system integration and configuration for interfacing and communications (B).
- Program and implement ICT systems using the tools of the ICT professional e.g. compilers, databases, operating systems and multimedia packages (B).
- Design an effective ICT system based on the most effective use of data, components and sub-systems e.g. Wireless networks (B).
- Evaluate requirements; define, analyse and solve problems; and evaluate potential and existing solutions (B).
- Gather, organise and interpret technical information demonstrating a high level of IT competency and numeracy (B).
- Work effectively as part of a team and work and learn independently (B).
- Communicate effectively via reports and presentations and develop a reasoned argument (B).

- Organise your work and apply project management techniques to work in a task/deliverable-orientated way (B).

(B) indicates that the outcome has been mapped to the Computing benchmark standards.
http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/computing.pdf

The Computing benchmark standards provide a national framework for describing the content and standards of a bachelors degree with honours in Computing disciplines.

8. Teaching and Learning Methods

The teaching methods used on this course have evolved over a number of years based on feedback, review and reflection. Our approach is to use practical illustration and first-hand experience to enhance learning wherever possible.

Learning is facilitated in a range of different ways. Most modules involve a series of lectures to explain and develop the subject concepts to you. These are accompanied by either seminars or laboratory sessions or sometimes a combination of both. In these you apply the theory from the lectures. This leads to a more thorough understanding of the subject and the development of any practical skills associated with it. The seminars and laboratories are also often used to help you in coursework assignments, which in themselves also help to embed knowledge and develop skills. In the laboratory sessions, staff will help you to explore and use the technology, and give you feedback on your practical work. They will also discuss links between theory and practice in these sessions. Some modules also have optional surgery sessions to support learners. These are student-driven in that students bring to the sessions questions on any aspects of the module that they are finding difficult.

The university runs an online resource to support teaching and learning, a virtual learning environment known as the NTU Online Workspace (NOW). All modules are represented on NOW and most use it to provide you with the material associated with the module. Our aim is to support your development into an autonomous independent learner.

The nature of the subject means that much of your learning will be computer-aided. As well as using development environments and packages for coursework implementation tasks, you will also use some computer-aided learning packages and techniques such as online discussion groups. Again, we aim for you to become an engaged learner who takes responsibility for your learning.

The development of your independent learning skills will culminate in the undertaking of the final year project. This involves you working on a topic that you choose in consultation with your project supervisor. You will see your supervisor throughout the final year and they will guide you in your work.

9. Assessment Methods

Modules are either assessed via coursework, exam or a combination of both. Coursework makes up over half of the total assessment for the programme.

Coursework assessments can take many forms. You will often be given a practical task to do for the assignment which you then write up in a report. You may also have to demonstrate what you have done or give a presentation on it. Some modules involve an element of seminar contribution in the assessment and some others use computer-based assessment. Your final year project will give you an opportunity to specialise in an area of Information Technology that interests you. You will undertake practical work which you will demonstrate and report on in a dissertation.

The range of assessment methods aims to give students a variety of ways in which to demonstrate achievement as well as encouraging the development of the communication skills valued by employers.

10. Course structure and curriculum

The course is studied over 4 years for the sandwich mode, or 3 years full time. On the sandwich route you have a paid placement with a company working for 9 months or more between your second year and your final year. The placement will be in the ICT industry. In full time mode, you will go directly to the final year after Level 5.

You will study a programme of modules as indicated below. These develop your knowledge and skills to meet the learning outcomes of the course. The mapping between the modules and the course outcomes is known as a curriculum map and is available should you be interested to see this.

Development of employability is a key strength of the course. This is achieved through the technical and personal skills you develop which are sought after by employers. Preparation for work is covered in the professional development theme where you learn about c.v. writing and career planning.

You need to obtain 360 cp (credit points), 120cp per year, to gain the honours qualification. Your degree classification will be based upon your Level 5 (second year) mark (20%) and your Level 6 (final year) mark (80%).

Students who do not obtain enough credit points may be eligible for one of the following awards: Certificate of Higher Education (120 cp), Diploma of Higher Education (240 cp) or Ordinary degree (300 cp).

Successful completion of the year of industrial experience is necessary for you to gain the sandwich award. You will write a report detailing the work undertaken by you and evaluating your part in the overall company context. You will also receive a Diploma in Professional Practice.

Year 1 (Level 4)

Foundation in Computing and Technology	40cps
Web-based Programming	20cps
Internet Technology	20cps
Systems Analysis and Design with Professional Development	40cps

Year 2 (Level 5)

Communications Technology	20cps
Internet Applications Development	20cps
Interface Technology and Design	20cps
Rich Media Technology	20cps
Understanding the IT Industry	20cps
Practical Project Management and Professional Development	20cps

Year 3 - Industrial Placement year for Sandwich students

Year 3/4 (Level 6)

Project	40cps
Wireless and Mobile Communications	20cps
Mobile Platform Development	20cps
Advanced Imaging and Display Technology	20cps

options:

You will now have a choice of two possible routes :

Route A – choice of one computing/technical based 20cps module from the following :

Security Technologies	20cps
Business Analysis	20cps
Information Systems Management	20cps
Serious Games	20cps

Or

Route B – The following module will be of interest to you if you wish to explore teaching as a career route as it involves working with teachers in a school setting:

Communicating Science and Technology	20cps

11. Admission to the course

Entry requirements.

For current information regarding all entry requirements for this course, please see the 'Applying' tab on the NTU course information web page.

12. Support for Learning

We will work with you to ensure that you settle into your new academic environment

and that your studies go well, and you will find that there are lots of people to support you at Nottingham Trent University.

All students at Nottingham Trent University have full access to Student Support Services. In addition, School based support networks are in place to offer you support, guidance and advice on academic and personal issues. Within the course, students experience the full support of the Computing and Technology Academic Team. The Academic Team Leader, with support from the Course Manager, Course Leader(s), Module Leader(s), and Personal Tutor, takes responsibility for student support and guidance. The Module Leader will offer guidance and support to students taking each specific module

As a new student you will experience a minimum of a 3 day induction period at the commencement of your first academic year. Induction will inform you about:

- Student Support Services at University, School and Course level;
- University policies and procedures on academic systems;
- Personal development planning;
- Timetable issues, room allocations and location;
- University, School and Course Handbooks;
- Enrolment procedures;
- Computing, IT and Library services;
- Health and Safety procedures.

You receive a course handbook which contains the essential information about the course and the support we provide for your learning. You also meet your personal tutors and year tutors. There is also a special induction programme for direct entrants to level 5 / level 6.

You are assigned a personal tutor at the start of the course. They meet with you in a small group during the first year and provide you with any advice and support that you may need. Year tutors and a course leader oversee the smooth running of the course and they also serve as an additional source of support and advice for you. Every year, you will have regular time-tabled sessions with your Personal Tutor, in small groups. Your group tutorials will help you to reflect on your approaches to study and make connections between modules, integrating material from across the curriculum and encouraging you to achieve your maximum potential. You will also have an opportunity to discuss and deal with any personal or course-related issues which may be affecting your studies and get advice on what support the university can offer. Personal tutorials can also be used for personal development planning and skills development.

Towards the end of the second term of the first year (level 4), you will receive a talk on the course and module options available to you the following year.

Extensive online module information including learning materials is provided on the university virtual learning environment (NOW). This also includes course information such as the course handbook and assessment deadlines. We have excellent laboratory facilities with some 24 hour availability for IT labs.

The school operates a "one-stop-shop" administrative centre for assessment handin, handback, queries about fees and other general queries. You can also make appointments with tutors via this centre. The friendly staff in the centre are always available to help.

If you decide to opt for the sandwich award, our placements tutor will work with you to develop your c.v. and will help you to target your applications so that you get a placement that is right for you. You will be assigned a visiting tutor who will visit you at the company. Successful completion of your placement, including a written report, will enable you to receive a Diploma in Professional Practice.

We also provide you the opportunity of gaining experience in mentoring and leadership skills by applying to the Student Ambassador scheme. Selected level 5 and 6 students can develop these skills by running support sessions for students from lower levels as well as assisting on Open Days. Successful completion will enable you to be awarded the Certificate in Mentoring and Leadership Development.

The university provide Student Support Services, who offer extensive support and advice on a range of issues, e.g. financial problems, dyslexia and disability and personal problems.
http://www.ntu.ac.uk/current_students/resources/sources_support/index.html

For accommodation matters, University Accommodation Officers will provide you with information, guidance and continuing support, for example hall of residence, private rented accommodation, and the Landlord Approval Scheme. The Accommodation Services can be accessed through www.ntu.ac.uk.

13. Graduate destinations / employability

Graduate employability is fundamental to the strategic aims of Nottingham Trent University, as reflected by the fact that NTU is consistently placed close to the top of the league table of all UK Universities for graduate employment. Indeed this was highlighted by the statement recently from HEFCE concerning computing at NTU: "Computing is joint 15th for graduate employment among English universities" (HEFCE

Unistats data 2009).

In particular, graduates of the Information & Communications Technology course will be well placed to address the skills requirement in this growth area, due to the industrially relevant focus of much of the taught material, which has been informed via the many collaborative links to industry.

The emphasis of the course is on the development of knowledge and practical skills in the evaluation, implementation, and utilisation of information and communications systems (and sub-systems). This specialist knowledge is built on a broad foundation of computing and IT to equip graduates for both generic and specialist ICT future careers.

Some graduates will choose to venture into other sectors and will be equally successful in gaining employment because of the transferable skills developed on the programmes. Other graduates from the School go on to further study, or research. In addition to the expertise available within the School, the University has a comprehensive careers service open to all students to assist in securing employment. http://www.ntu.ac.uk/careers/

14. Course standards and quality

- A course committee monitors student feedback about the course and individual modules.
- You will be given feedback on all assessed work.
- There is a panel of External Examiners, who submit annual reports on the standards and quality of the course.
- The subject benchmarks of the Quality Assurance Agency have been incorporated into the course's learning outcomes.
- The teaching in the School of Science and Technology is regularly reviewed by the University. The latest review resulted in many positive outcomes and the summary can be viewed at : http://www.hero-uk.org/uk/univeristies_colleges/east_midlands/nottingham_trent_university.cfm
- The University was the subject of a successful institutional audit by the Quality Assurance Agency in November 2008 – the report is available here: http://www.ntu.ac.uk/cadq/quality_assurance/audits/index.html

15. Assessment regulations

This course is subject to the University's Common Assessment Regulations (located in its Academic Standards and Quality Handbook). Any course specific assessment features are described below:

There are no course specific exceptions from the university regulations.

16. Additional Information

Collaborative partner(s):	**KBU International College, Malaysia**
Course referenced to national QAA Benchmark Statements:	**Computing**

Course recognised by:	**British Computer Society**
Date implemented:	**September 2016**
Any additional information:	

Additional Notes :-

The common first year (Level 4) with BSc (Hons) Information Systems, BSc (Hons) Digital Media Technology and BSc (Hons) Computing allows for transfer between these courses at the end of the first year (level 4). Several modules are also shared with BSc (Hons) Computer Systems (Networks), BSc (Hons) Computer Systems (Forensics and Security), BSc/MComp (Hons) Computer Systems Engineering, BSc (Hons) Computer Science, BSc/MComp (Hons) Computer Science (Games Technology) and BSc (Hons) Software Engineering.

The address for the Computing Benchmark pdf file is :
http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/computing.pdf

The address for the BCS website is : http://www.bcs.org/