Nottingham Trent University Course Specification

	Basic Course Information	
1.	Awarding Institution:	Nottingham Trent University
2.	School/Campus:	ADBE City
3.	Final Award, Course Title and Modes of Study:	BSc (Hons) Architectural Technology Full-time Sandwich
4.	Normal Duration:	3 or 4 years
5.	UCAS Code:	K101 (SW) / K130 (FT)

6.	Overview and general educational aims of the course

This challenging and dynamic course, explores new design ideas and technological advances in a stimulating studio-based setting. Through a project-driven learning experience, you'll design and detail small to complex built forms whilst considering how new and existing buildings will have an impact on the environment.

As a specialist in Architectural Technology, you'll be the link between concept and reality. You'll learn to identify, assess and challenge client and user requirements, translating ideas and possibilities, into effective and practical building solutions.

The course adopts a teaching and learning culture that reflects a professional architectural practice. In addition to subject knowledge, you'll develop key interpersonal and transferable skills appropriate to a career in Architectural Technology.

The course is uniquely, triple accredited by three professional bodies; CIAT (Chartered Institute of Architectural Technology), CIOB (Charted Institute of Building) and the RICS (Royal Institute of Chartered Surveyors).

According to the QAA subject benchmark statements for Architectural Technology (Oct 2014)

"Architectural Technology is a subject that is integral to the design of buildings and structures. It is rooted in science and engineering knowledge applied to the design of buildings to achieve optimum functionality; efficient and effective construction; and robust, durable and sustainable design solutions that perform over time".

In addition to your degree, you can take a year-long work placement, helping you to better appreciate the demands of a professional and commercial environment. The 4-year sandwich course enables you to obtain a Diploma in Professional Practice by undertaking a minimum 36 weeks placement during your third year. The Diploma extends your understanding of the context of Architectural Technology in terms of the relationship between theory and professional practice.

The BSc (Hons) Architectural Technology course is offered as either a 3 year full-time course or a 4 year sandwich course. In order to suit your personal circumstances, it is possible to change route after starting your studies.

The degree routes are as follows:
* BSc (Hons) Architectural Technology: = 3 years full-time
* BSc (Hons) Architectural Technology = 4 years sandwhich

As a graduate you will be able to work as part of a team that deliver the building design process from start to finish. From detailing, communicating, monitoring designed solutions and administering procurement strategies and contract procedures. You will be able to specify materials, components and assemblies, and co-ordinate building services to satisfy agreed briefs and standards in terms of time, cost and quality, integrating technology with design.

The Architectural Technology course at Nottingham Trent University strives to:

- Inspire students: developing enthusiastic, motivated students and attracting committed applicants from the UK and overseas.
- Engender professionalism: providing the necessary technical skills and qualities to enable you to take up positions of responsibility in a multi-disciplinary construction industry.
- Develop transferable skills: enabling you to acquire the appropriate skills to support your chosen career, with the possibility of continuing professional development and postgraduate study associated with lifelong learning.

The course has the following aims at its core: **Design, Technology, Management and Procurement** and will enable you to:

- Understand how buildings work: developing theoretical and practical knowledge of architectural science integrating technology with design through projects shared with other disciplines.

- Managing the building design process: selecting, testing and defining design solutions in the context of contemporary practice and procedures and the application of statutory regulations and other essential controls relating to the creation of new buildings.

- Promoting industry understanding: fostering critical awareness from the earliest stages of the mechanisms, professionals and stakeholders involved in the construction industry, including the selection of appropriate procurement strategies and contract documentation.

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:

1. Generate a comprehensive awareness of the realm and context of design within the built environment and of the different customs and practices within interrelated disciplines. (A & B)

2. Determine, assess and challenge factors used to establish the fundamental link between design and the technological, environmental, cultural, economic and social parameters within the built environment. (A & B)

3. Analyse and contrast processes related to Architectural Technology as the technology of Architecture ontologies, forms, functions, concepts and contexts to develop design briefs and present detailed project designs. (A & B)

4. Assemble design, construction and environmental sustainability strategies. In the context of their impact on users, market needs, cost, quality, environmental impact, safety, reliability, appearance, including accessibility, inclusive design, life cycle, maintenance and refurbishment. (A & B)

5. Evaluate and advise on the implications of complying with statutory constraints and regulatory control, and the significance of commercial and legal practice relevant to the construction industry. (A & B)

6. Critically evaluate, select and integrate concepts, principles and theories associated with detailed design solutions for the selection of building materials, construction methods and building engineering services. (A & B)

7. Defend the principles, values and ethics and appreciate the role and responsibilities of the Architectural Technologist in the context of design management, project procurement and process, construction and contract management in relation to practice and employment. (A & B)

8. Analyse and test integrated computer-aided design, 3D modelling, information and communication technology and building information modelling, new and emerging technologies, processes, modelling, knowledge management, information management, enterprise and infrastructure architecture in the context of BIM level 2. (A, B & C)

9. Assemble and evaluate project feedback, recommend improvements and specify maintenance information and guidance and proposed solutions. (A & B)

10. Integrate research and scholarship skills in the structure of a strategy for discovery, learning and its dissemination. (A & B)

Skills, qualities and attributes
By the end of the course you should be able to:

11. Communicate clearly and effectively at different levels and with different parties involved in the design process within the built environment. (A & B)

12. Integrate literacy and numeracy skills appropriate to a career in Architectural Technology. (A & B)

13. Produce creative design solutions utilising high-quality architectural 2D or 3D presentations, artefacts and parametric models through the application of various methodologies. (A, B & C)

14. Develop, monitor and evaluate progress, critically reflect on their performance (individually or in a group situation) in using the relevant skill, and adapt their strategy, as necessary, to achieve the quality of outcomes required. (A & B)

15. Establish, review and test client requirements and user factors; identify challenges and preferences in order to develop the design brief and formulate proposals that respond to the brief. (A & B)

16. Assemble designs into built form through the generation of detailed technical solutions that respond to complex and unfamiliar situations. (A & B)

17. Formulate legal and regulatory requirements to achieve inclusive and sustainable buildings using building regulations, health and safety, quality assurance and control systems. (A & B)

18. Test and utilise diagnostic methods in the identification of structural elements and the general condition, evaluation of building survey information and assessing a building scope when considering refurbishment or other work. (A & B)

19. Assemble technical and performance requirements and methods for specifying materials and components including implementation of manufacturers' literature, design and technical guides, material certification. (A & B)

(A) Indicates outcomes that have been mapped to the QAA Architectural Technology benchmarks.
(B) Indicates outcomes that have been mapped to the QAA Construction, Property and Surveying benchmarks.
(C) Indicates the emerging learning outcomes that are being developed by the BAF (BIM Academic forum).

8. Teaching and Learning Methods

The course strives to develop a teaching and learning culture allied to that of professional Architectural Technology practice. Theoretical knowledge gained from all study areas is applied through studio-based projects encouraging integration between technology and design. Subject modules are introduced via briefing sessions, and then delivered using a range of teaching and learning methods appropriate to the subject area/topic.

These methods include lectures, seminar debates, studio and practical workshop sessions and study group and individual tutorials, as well as study trips and site visits. Group tutorials are structured to replicate team meetings often found in professional practices. You are encouraged to articulate your proposals in an objective and critical manner and to develop the interpersonal communications skills, which are invaluable to any walk of professional life.

Practical sessions, emphasising the application of fundamental principles of Architectural Technology, focus on problem solving and development of technical solutions to design problems. Simulation exercises based on real work problems reflect the modern world of the professional architectural technologist.

Teamwork is a fundamental part of being an Architectural Technologist. Modules are structured to develop extensive collaborative team activity with some projects being planned to integrate students across all levels of the course and also from different subject areas replicating a professional working environment.

The contact hours and directed learning activities are balanced against independent learning and research to encourage you to take an active approach to the progression of your work within a nurturing and supportive environment.

The course is supported by external professional practitioners ensuring that your learning is continuously enhanced through exposure to real world perspectives in a rapidly changing industry.

9. Assessment Methods

The course uses a combination of coursework and examination for assessment of subject specific knowledge and transferable skills. Tasks set within the modules are structured to enable you to address the course learning outcomes, ensuring that assessment is directed towards the achievement of those outcomes. The range of assessment methods includes coursework in the form of technical drawings and models, essays and reports, seminar debates and presentations. You will use laboratory experiments to develop a range of practical skills to review outcomes associated with hypothesis testing, data capture and interpretation. All modules make use of staged formative evaluation to provide you with feedback indicating your performance levels within the module. These indicators are not used to determine the final grade, but serve as an opportunity to identify areas of strength and those for further development and study in order to advance and develop your work. It is crucial for your progress that you demonstrate appropriate levels of understanding to complete each year of the course. This is evidenced in the body of work created at each level.

You are required to meet the learning outcomes of the placement to achieve the diploma; the experience gained on your year out can also contributes to your chartered status.

10.	**Course structure and curriculum**

The course is offered in a full-time (3 year) or sandwich (4 year) mode. Within the 4-year sandwich mode you have an opportunity to enrol for the Placement Diploma in Professional Practice, which is undertaken in year three.

The first two years of the course (Levels 4 and 5) focus on the introduction and integration of technological and design theory into simulated practice. Whilst most students wish to consolidate this introduction by undertaking a period of professional practice placement in their third year, it is possible to proceed directly into the final year and complete your studies on a full-time basis. All modules have been designed to meet the QAA benchmarks associated to the course.

Level 4 (Year 1)	Credit Points (CP)
Technology and Design Studio 1	40
Construction Technology 1	20
Architecture in Context for Architectural Technology	20
Architectural Science and Building Engineering	20
Integrated Design Communication 1	20
Total	**120**

Level 5 (Year 2)	Credit Points (CP)
Technology and Design Studio 2	40
Construction Technology 2	20
Planning, Development and Surveying	20
Integrated Design Communication 2	20
Contract Administration: Control and Finance	20
Total	**120**

Sandwich Year 3
Work Placement Certificate of Professional Practice
Working in conjunction with the work placement office, you are assisted in identifying appropriate work placement opportunities, which are then secured though a process of application and competitive interview. In order to qualify for the Diploma of Professional Practice you will normally have:

- Completed 36 weeks (minimum requirement) of Professional Practice Placement with an approved organisation.
- Received a satisfactory report from the employer
- Successfully completed the Professional Practice logbook and presentation and met the learning outcomes.

Further information regarding the placement-learning framework can be found by visiting the Placement Information area of the NOW Workspace.

Level 6 Final Year (Year 3 Full-time / Year 4 Sandwich)	Credit Points (CP)
Technology and Design Studio 3	40
Construction Technology 3	20
Professionalism and employability	20
Integrated Design Communication 3	20
Research Project for Architectural Technology	20
Total	**120**
Total Credit Points	**360**

You need to obtain 360 CPs (120 CPs in each of the years of study) to obtain the honours degree award. Students who do not obtain 360 credit points may be eligible for one of the following awards:

- Certificate of Higher Education – 120 CPs at Level 4
- Diploma of Higher Education – 120 CPs at Level 4 and 120 CPs at Level 5
- Ordinary degree – 120 CPs at Level 4, 120 CPs at Level 5 and 60 CPs at Level 6

In accordance with the University's Common Assessment Regulations progression requires you to successfully achieve 120 credit points. Your degree classification is calculated on 20% of Level 5 work and 80% of Level 6 work.

11.	**Admission to the course**

The course welcomes applications from students from all backgrounds. Those applying with non-standard entry profiles will be considered on an individual basis.

Standard entry profiles:
The entry requirements into the course are 260 UCAS points at A, AS or other equivalent levels. Applicants are required to achieve a minimum of Grade C at GCSE Mathematics and English. Non-UK qualifications will be assessed in comparison to their UK equivalents. Entry profiles are available on the UCAS website. Applications can be made though UCAS Route A.

Applicants may also be considered for entry beyond the beginning of the course if they possess appropriate prior qualifications or experience. All potential applicants will be invited to attend open days.

Competence in written and spoken English is essential. Applicants from overseas need to have a minimum score of either IELTS 6.5 (with minimum of 5.5 in reading, listening, speaking and writing) and for TOEFL (IBT) 83 (with minimum reading:18, listening: 17, speaking: 20, writing: 17) unless their previous studies were undertaken in English.

A full list of all English language qualifications accepted by the University is available on our website www.ntu.ac.uk/englishlanguage.

12.	**Support for Learning**

An induction course at the beginning of the first year will introduce you to the university, give you an overview of the way the course runs, and explain how to use the library and IT resources. You will receive a handbook, which contains the essential information about the course, the method of delivery and the expectations that academic staff have of you, together with the support that we provide for your learning.

As well as managing the academic administration of the course, the course leader will provide the important pastoral care needed to help you while you are here at the university.

During the year, on-going academic support is given through a variety of staged formative and evaluative sessions for each module. All the academic staff on the course have professional expertise in relevant subject areas and many are involved in on-going research, which helps to ensure currency in the delivery of the subject. Academic support from specialist subject areas is also available within the School of Architecture, Design and the Built Environment.

Each module is supported by a comprehensive module guide, which clearly describes the module expectations, delivery structure and precise assessment outputs which are required from you. The guide, along with other relevant module information that is constantly updated, is also made available via the University's online working resource (NOW) is used to provide course and module information to assist your learning.

The Library and Learning Resources (LLR) and IT facilities are regularly updated to meet the teaching and learning requirements of the course. Additional support in this area is provided by dedicated information specialists for the subject area. Further information can be accessed from http://www.ntu.ac.uk/llr/index.html

The Student Support Service offers extensive support and advice on a range of personal and academic matters. Further information can be obtained from http://www.ntu.ac.uk/sss/index.html

13. Graduate destinations / employability

Career opportunities for an Architectural Technologists within the construction industry are extensive and exist in design practices, design and build construction companies and property development or management businesses. We have a good graduate employment record in this discipline, and some graduates have successfully ventured into other sectors because of the transferable skills gained on this course. Other graduates continue in academia and go on to study for higher degrees.

NTU is consistently placed close to the top of the league table of all UK Universities for graduate employment and has an extensive employability team dedicated to graduate employment, placements and careers. NTU Employability Group

14. Course standards and quality

Systems for quality management of the curriculum within the School of Architecture, Design and the Built Environment are well established; these are based on observations and feedback from students, staff, external examiners and commercial practice/industry. Feedback is reported, recorded and acted upon in a variety of ways.

Course committee meetings
Course committee meetings, attended by student representatives and academic staff, consider matters in connection with the course and provide the opportunity for you to raise issues relating to the course.

Student feedback questionnaires
At various stages in the academic year, you are invited to review and evaluate your learning experience. The intention of these exercises is to gauge your satisfaction with the organisation and delivery of your teaching and learning, providing an opportunity to acknowledge good practice, but also offering insights into areas needing improvement. All feedback comment is reported to the course committee for consideration. In addition to these formal systems, informal tutorials and social gatherings also provide valuable feedback.

External examiner's report
An external examiner submits an annual report on the standards and quality of the course, based on his/her review of student work, and discussions with students and staff.

Visiting lecturers' feedback
External contributors to modules including visiting academics and/or practitioners are invited to comment both on student progress and on their involvement with the course. Their views play a critical role in ensuring the focus and relevance of the course in the context of commercial practice.

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:

Assessment criteria are linked to module learning outcomes. Assessment methods are appropriate to the achievement and/or demonstration of the learning outcome/s and may involve examinations, individual and group presentations as well as the submission of textual and two and/or three-dimensional work for marked assessment. Wherever possible, coursework submission dates will be carefully staggered to spread your workload across the academic year. In accordance with the University's Common Assessment Regulations progression requires you to successfully achieve 120 credit points at each level although students are allowed to carry referrals into the next level at the discretion of the examination board.

16.	**Additional Information**

Collaborative partner(s):
Course referenced to the following   QAA Architectural Technology Benchmarks (2014
Benchmark Statements: QAA Construction, Property and Surveying (2008
Course recognised by: CIAT / CIOB / RICS

Extended Study Visit
The course includes an extended residential study visit. As well as providing an opportunity to broaden the academic investigation of diverse cultural activity this is often a memorable highlight of your university experience.

Collaborative Projects
The course may include design projects involving students from other levels of the Architectural Technology degree, and/or from other degree pathways.

V5 updated 10/03/15