



# UNIVERSITY OF LINCOLN

## Programme Specification

Title:

### Architectural Science and Technology

Final Award: **Bachelor of Science with Honours (BSc (Hons))**

With Exit Awards at:

**Certificate of Higher Education (CertHE)**

**Diploma of Higher Education (DipHE)**

**Bachelor of Science with Honours (BSc (Hons))**

To be delivered from: 1 Sep 2019

<b>Level</b>	<b>Date</b>
Level 1 or Certificate of Higher Education (CertHE)	2019-20
Level 2 or Diploma of Higher Education (DipHE)	2020-21
Level 3 or Bachelor of Science with Honours (BSc (Hons))	2021-22

## Table Of Contents

<b>1. Introduction</b>	3
<b>2. Basic Programme Data</b>	4
<b>3. Programme Description</b>	5
3.1 Overview	5
3.2 Aims and Objectives	6
3.3 Variations to Standard Regulations and Guidance	9
<b>4. Programme Outcomes</b>	10
4.1 Knowledge and Understanding	10
4.2 Subject Specific Intellectual Skills	10
4.3 Subject Specific Practical Skills	11
4.4 Transferable Skills and Attributes	11
<b>5. Learning, Teaching and Assessment Strategies</b>	12
5.1. Learning and Teaching Strategy	12
5.2. Assessment Strategy	12
<b>6. Programme Structure</b>	14
<b>Appendix I - Curriculum Map</b>	15
<b>Appendix II - Assessment Map</b>	18
<b>Appendix III - Benchmark Analysis</b>	25
<b>Appendix IV - Benchmark Statements(s)</b>	28

## **1. Introduction**

This document describes one of the University of Lincoln's programmes using the protocols required by the UK National Qualifications Framework as defined in the publication *QAA guidelines for preparing programme specifications*.

This programme operates under the policy and regulatory frameworks of the University of Lincoln.

## 2. Basic Programme Data

<b>Final Award:</b>	Bachelor of Science with Honours (BSc (Hons))
<b>Programme Title:</b>	Architectural Science and Technology
<b>Exit Awards and Titles</b>	Certificate of Higher Education (CertHE) Diploma of Higher Education (DipHE) Bachelor of Science with Honours (BSc (Hons))
<b>Subject(s)</b>	Architectural Science and Technology
<b>Mode(s) of delivery</b>	Full Time Part Time
<b>Is there a Placement or Exchange?</b>	
<b>UCAS code</b>	K130
<b>Awarding Body</b>	University of Lincoln
<b>Campus(es)</b>	Lincoln Campus
<b>School(s)</b>	Lincoln School of Architecture and the Built Environment
<b>Programme Leader</b>	Amira Elnokaly (AElnokaly)
<b>Relevant Subject Benchmark Statements</b>	
<b>Professional, Statutory or Regulatory Body Accreditation</b>	
<b>Programme Start Date</b>	2019-20

## 3. Programme Description

### 3.1 Overview

The LSABE BSc (Hons) Architectural Science and Technology degree aims to meet the global challenges of population growth, rapid urbanisation and climate change, which requires skilled professionals to produce efficient, effective construction and robust sustainable design solutions that perform and endure over time.

Chartered Architectural Technologists are specialists in the science and technology of building design and construction. They form a strategic link between concept design and realisation, and ensure compliance with relevant legislation, such as building codes and regulations. Their technical skills are underpinned by knowledge in construction science, building technology, environmental science, digital engineering and architectural design.

Our programme is designed to be distinct and reflects the interdisciplinary nature of our profession. Aligned with our school's built environment disciplines, where our students are taught alongside students from Architecture and Construction Science and Management, in addition to students from the Business school.

On this course, students have the opportunity to develop their skills in our dedicated studio spaces with access to specialist equipment and advanced computer software.

The identity of the Lincoln School of Architecture and the Built Environment rests on the necessity to design and build tomorrow's buildings and cities that are socially, economically and environmentally sustainable. Courses and projects therefore address design and construction challenges in both national and international contexts.

This undergraduate programme has been designed to meet the requirements of accreditation by the Chartered Institute of Architectural Technologists (CIAT) and reflects the global and interdisciplinary nature of the built environment professions.

A combination of lectures, design studio, seminars, tutorials, practical exercises, site visits, field trips, and workshops with industry experts, will prepare Students for a broad range of career paths within the architectural technology sector. Chartered Architectural Technologists have the skills to play several roles in the design and procurement process, including Project Inception, Project Planning, Detailed Construction Design, Building Control, Project Documentation, Site Management, and BIM coordination / management.

### PROGRAMME STRUCTURE

The Architectural Science and Technology programme is designed around the Subject Benchmark Statement for Architectural Technology (2014) and the CIAT Mandatory Thresholds Standards. The Architectural Science and Technology programme covers the main four subject areas as outlined by the CIAT, ensuring that students are conversant with the four main subject areas:

- Design
- Technology
- Management
- Practice.

In addition to this, the programme covers innovative technologies and a competitive understanding of ICT and BIM.

Modules like Introduction to the Built Environment, AST Research Methods and AST Dissertations cover the four main subject areas, in addition to the 30 non-credit hours in year 1 and 2 and the optional placement year.

Exit Routes: There are 2 early exit points for the AST Program

- After Level 4 – 120 credits – Certificate in Higher Education
- After Level 5 – 240 credits – Diploma in Higher Education
- Successful Completion (360 Credits) – BSc (Hons) Architectural Science and Technology

Structure:

Year 1/ Level 4:

Fundamental Science & Technology  
Introductory Architectural Design and Technology Studio  
Introduction to the Built Environment  
Health, Safety and Law  
Personal and Professional Skills  
Construction ICT

Year 2 / Level 5:

Environmental Science & Technology  
Architectural Design and Technology Studio  
Construction Economics  
Procurement, Estimating and Measurement  
Construction Contracts and Law  
BIM Design & Applications

\* 30 hrs non-credit bearing module for our 1st and 2nd year students to have work placement/ mentoring scheme in practice

Placement Year (Optional): Placement (Student to identify the organisation / practice) University / Staff will try to support allocation but not compulsory

Year 3 /Level 6

Environmental Science Design Project  
Advanced Architectural Design and Technology Studio  
Professional Context  
AST Research Methods  
AST Dissertation

### **3.2 Aims and Objectives**

Our vision for Architectural Science and Technology at Lincoln is to be a significant global player in the education of tomorrow's leaders in this field. Our Architectural Science and Technology provision will nurture Architecture Technologists that are specialists in the Science, technology and art of Architecture. Our graduates will form the link between concept design and construction, providing high level design skills and innovation in projects of all types and scale.

The Architectural Science and Technology programme is designed to be distinct and reflects the interdisciplinary nature of our profession.

The Programme is designed to be fully integrated with other programmes in the School of Architecture and the Built Environment and therefore aligned with our School vision to nurture students who are leaders in science and technology. Reflecting on the interdisciplinary nature of our construction industry, our students are taught alongside students from Architecture, Construction Science and Management, and Business.

Students are encouraged to engage with industry from the commencement of the programme. We have embedded a 30 hours non-credit bearing module for our 1st and 2nd year students to have a work experience and mentoring where we also provide a direct link to our University Estates Department.

We encourage our full-time students to undertake an optional structured placement year within the construction industry between the second and third years of the programme. A placement year can give students access to professional contacts and experience. It may lead directly to final-year sponsorship and significant potential for graduate employment. Tutors will provide support and advice to students throughout this active learning process.

This programme has been designed to meet the requirements of accreditation by the Chartered Institute of Architectural Technologists (CIAT) and reflects the global and interdisciplinary nature of the built environment professions. Chartered Architectural Technologists are specialists in the science and technology of building design and construction. They therefore form a strategic link between concept and construction, and they ensure compliance with relevant legislation, such as building codes and regulations. Their technical skills are underpinned by knowledge in construction science, building technology, digital engineering and architectural design.

Underpinning this course is a commitment to educate graduates who have an appreciation of architectural design, and a solid understanding of the science of buildings, including their assembly and environmental performance. The programme has been designed so that core subjects are studied across multiple levels, including environmental science, construction technology, construction IT and architectural design. This programme is supported by the School's Professional Advisory Board (PAB) comprising prominent senior professionals from the architectural profession and construction industry. These connections enable us to ensure that our programmes are future focused and relevant, as well as creating opportunities for site visits, placements and internships.

Outline and Educational Aims of the Programme:

The specific aims of the provision of the BSc (Hons) Architectural Science and Technology Programme is provided in order to reflect the ever-changing configuration of the construction industry; recognising the increasing professional diversity within architectural technology to equip

students to meet the future global challenges as well as to take advantage of current thinking as to best practice in education. The ever-increasing professional diversity within Architectural Technology is recognised in the delivery of the Programme.

The specific course aims are as follows:

1. to ensure that the BSc (Hons) Architectural Science and Technology Course at the University of Lincoln maintains a position at the forefront of Higher Education by satisfying the requirements of the Construction Industry and Profession at both national and international levels
2. to satisfy the academic requirements of the Chartered Institute of Architectural Technologists (CIAT) for our graduates to gain the benefits of gaining chartered status in a professional institution
3. to provide students with the education and training necessary for entry into the construction and property industry as a professional Architectural Technologist.
4. to provide an up to date curriculum which meets the needs of the Architectural Technology profession in order that graduates will succeed in their chosen career direction
5. to enable students to apply their expertise to the design of cost-efficient and sustainable buildings, whilst having the opportunity to develop their creativity through a thorough understanding of the materials, components, structural systems and environments in the built environment
6. to allow the students a wide range of academic attainments to achieve their academic and personal development potential
7. to provide opportunities for students to study alongside peers from other built environment related disciplines in integrated project work and other common modules which simulate the environment in which they will work upon graduation

### Programme Learning Outcomes

A student who successfully completes the BSc (Hons) Architectural Science and Technology programme will have achieved the following Programme Learning Outcomes which are directly mapped to the QAA Architectural Technology (2014) benchmark statement and the Relevant Mandatory Threshold Standards for the accreditation by the Chartered Institute of Architecture Technologist covering the four key subject areas: Design; Technology; Management and Practice.

#### Design:

- ¥ an awareness of the context, and the political, economic, environmental, social and technological aspects that inform and influence the practice of Architectural Technology nationally and internationally
- ¥ an ability to problem solve to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations
- ¥ an ability to successfully complete a sustainable, cost efficient, and inclusive design project, systematic review or systematic case study, informed by current understandings in the discipline

#### Technology:

- ¥ an awareness of building elements, components, systems, and methods relevant to different building typologies
- ¥ an awareness of current practice which informs the discipline of Architectural Technology including new and emerging technologies

#### Management:

- ¥ an awareness of project and design management, project procurement and process, construction



## and contract management

### Practice:

¥ an ability to identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks

¥ an ability to work independently, and as a member of a team, identifying personal development needs and to plan to meet these needs through relevant and appropriate methods

### Innovative Technologies:

- an awareness of the ever-changing innovative technologies in the and available tools for the construction industry and a competitive understanding of ICT and BIM.

- an awareness of the greater need for modelling, coordination and cohesion of the whole-life building process.

### The programme key features:

- Innovative curriculum with a unique focus on environmental sustainability, climate change resilience, digital engineering and technology, construction technology innovation, urban growth and population dynamics
- Designed around the CIAT mandatory thresholds standards to be professionally accredited by the Chartered Institute of Architecture Technologists (CIAT), with a clear professional path
- Unique emphasis on the equal consideration of the science of buildings, the management of the construction process and the system thinking of architectural technologists
- Opportunities for placement work and internships through close collaboration with local industry
- An opportunity for one year industry placement after level 5.
- An opportunity for early engagement within the industry for a 30 hrs non-credit bearing module for our 1st and 2nd year students to have work placement/ mentoring scheme in practice
- Integration of students of architecture science and technology with other built environment students as a reflection of the real world

## 3.3 Variations to Standard Regulations and Guidance

## 4. Programme Outcomes

Programme-level learning outcomes are identified below.

Refer to *Appendix I – Curriculum Map* for details of how outcomes are deployed across the programme.

### 4.1 Knowledge and Understanding

On successful completion of this programme a student will have knowledge and understanding of:

- 1 Knowledge and understanding which underpins the holistic design of buildings and structures, as both a product and a process, to provide through whole life cycle approach, value for money and avoid premature building degradation and failure
- 2 Principles of the long-term performance of buildings and structures, based upon knowledge and understanding of the science and engineering behaviour of materials and components, with consideration of durability, robustness and knowledge of the life span and characteristics of building systems, materials and components.
- 3 Understanding of history and context, design of buildings including new buildings and alteration, extension and conservation of existing buildings
- 4 Design and construction process and systems efficiency, effectiveness, economic and environmental sustainability and environmental impact assessment, user and market needs, cost, quality, safety, reliability, appearance, fitness for purpose including accessibility and inclusive design, life cycle, maintenance and refurbishment
- 5 Legal and regulatory requirements including health and safety, business and organisation structures, continuous improvement and quality assurance techniques
- 6 Science and engineering of materials and components related to design for production and performance, tectonics, design and technical guides, material certification, realisation of design from concept to construction
- 7 Computer-aided design, three-dimensional modelling, information and communication technology and building information modelling, new and emerging technologies, knowledge and information management, enterprise and infrastructure

### 4.2 Subject Specific Intellectual Skills

On successful completion of this programme a student will be able to:

- 8 An awareness of the context, the political, economic, environmental, social and technological aspects that inform and influence the practice of architectural science and technology nationally and internationally
- 9 an awareness of the technological theories that inform and influence the practice of architectural technology to successfully complete a sustainable and inclusive design project, through systematic review or systematic case study, informed by current understandings in the discipline
- 10 An awareness of building elements, components, systems, and methods used for different building typologies and an ability to identify appropriate methodologies for dealing with

complex problems

- 11 An awareness of project and design management, project procurement and process, construction and contract management, identifying relevant legislation and legal and regulatory frameworks
- 12 An ability to identify hazards and risks and develop and maintain safe systems of work

### **4.3 Subject Specific Practical Skills**

On successful completion of this programme a student will be able to:

- 13 Produce creative and holistic design solutions utilising high-quality architectural 2D or 3D presentations, artefacts and parametric models through the application of various modes and methodologies
- 14 Apply legal and regulatory requirements to achieve inclusive and sustainable buildings using building regulations, system design, health and safety, quality assurance and control systems
- 15 Establish client and context requirements and user factors; identify challenges and preferences in order to develop the design brief and formulate proposals that respond to the brief in an holistic approach
- 16 Realise the design into built form through the generation of detailed technical solutions that respond to complex situations. utilising diagnostic methods, evaluation techniques, assessing a building scope when considering refurbishment or other work
- 17 Utilise technical and performance requirements and methods for specifying materials and components including implementation of manufacturers' literature, design and technical guides, material certification and other relevant information

### **4.4 Transferable Skills and Attributes**

On successful completion of this programme a student will be able to:

- 18 Present architectural technology information and articulate arguments clearly and correctly, in an appropriate format to a range of audiences
- 19 An ability to work independently and as a member of a team, developing critical discussion and analysis of complex concepts, identifying personal development needs and to plan to meet these needs through relevant and appropriate methods
- 20 Develop a strategy for using the relevant key skill over an extended period of time, plan how this will be achieved, monitor progress, critically reflect on their performance in using the relevant skill, and adapt their strategy, as necessary, to achieve the quality of outcomes required

For details of each module contributing to the programme, please consult the module specification document.

## **5. Learning, Teaching and Assessment Strategies**

### **5.1. Learning and Teaching Strategy**

The aims of this distinctive and innovative programme reflect the current challenges faced by built environment professions. This resonates strongly with the School's and College's strategies to enable our students to become skilled, knowledgeable, motivated and ambitious graduates, who will be highly employable and will meet industry's needs. The programme is developed and will be operated with the support of the Professional Advisory Board (PAB) and this external public engagement is an essential component of the curriculum. Students will be encouraged to engage in their own learning and in the delivery of the programme through the student-as-producer initiative which links undergraduate study with research. The vast majority of staff involved in the delivery of this programme will have a teaching and research profile which supports this strategy.

The teaching and learning strategy adopted within the BSc(Hons) Architectural Science and Technology programme centres on the exploration, analysis and interpretation of a range of issues critical to the discipline, and in realising a building concept to final build, within a series of themes running throughout the programme: contextual design, environmental sustainability, environmental science and technology, systems thinking, building information technology and management, information technology, health & safety, legislation, construction and project management, and research principles and practice.

Students on this programme learn from academic staff who are engaged in research and professional practice. Contact time will be in workshops, practical sessions, seminars or lectures and may vary from module to module and from academic year to year. Our teaching evolves around studio projects; group projects; lectures; tutorials; one-to-one tutorials (available by prior appointment or during office hours); guest lecturers and external site visits to construction sites, and completed exemplar buildings. Tutorial sessions and project supervision can take the form of one-to-one engagement or small group sessions.

It is still the case that students read for their degree and this means that in addition to scheduled contact hours, students are required to actively engage in independent study. This allows you to read around a specific topic and to prepare for lectures and seminars through wider reading, or to complete follow up tasks such as assignments or revision. As a general guide, the amount of independent study required by students at the University of Lincoln is that for every hour in class you are expected to spend at least two to three hours in independent study.

### **5.2. Assessment Strategy**

The assessment strategy adopted within the BSc(Hons) Architectural Science and Technology:

- The programme includes a variety of assessment types, both individual assessments and group assessments. These include project reviews (critiques), reports, essays, presentations, Personal Development Portfolios, project portfolios, assignments and reflective essays, a research dissertation and practical exercise reports.
- Assessment is both formative (work is reviewed and feedback given but which does not count towards the module assessment grades) and summative (the assessed mark counts towards the module assessment grades awarded). Formative assessment is important as it encourages students and supports their overall learning.
- In most cases, students will be required to present their final project work to their peers and tutors in a formal pin up in order to obtain formative assessments, feedback, and feedforward in order to

modify their work prior to final submission and summative portfolio assessments.

- Feedback to students on summative assessment is vitally important. The method used will vary depending on the task that was undertaken but staff realise the need for it to be timely, constructive and supportive.
- On completion of a module the module coordinator submits the marks to the end of year Examination Board for ratification and approval. Where a module is assessed through more than one assignment the proportions of marks for each assignment are specified in the assignment briefings.
- External Examiners will monitor the assessment strategy, will have copies of all project/assessment briefs and will review the assessment process at the end of the year in order to ensure that the assessment process has been carried out fairly and in accordance with the University Regulations.
- All project/assessment briefs will have clearly identified criteria for what is required and a clear indication of how the marking will be carried out.
- Assessment is based on the extent to which the student has fulfilled the learning outcomes that are included as part of all module descriptions. The learning outcomes for each module have each been mapped against the assessment requirements in order to ensure that students can demonstrate that they are able to achieve these outcomes.
- The final stage in the process of assessment involves External Examiners inspecting samples of assessed work from all modules and advising on standards and parity with other similar accredited courses.
- A School and College Examination Board considers the degree classification and makes the award.
- The programme regulations require all graduates to pass all modules to receive the BSc(Hons) Architectural Science and Technology degree

There are intermediate awards for students who only partially complete the programme modules as follows:

Certificate of Higher Education (After successful completion of Level 4)

Diploma of Higher Education (After successful completion of Level 5)

## 6. Programme Structure

The total number of credit points required for the achievement of Certificate of Higher Education (CertHE) is 120.

The total number of credit points required for the achievement of Diploma of Higher Education (DipHE) is 240.

The total number of credit points required for the achievement of Bachelor of Science with Honours (BSc (Hons)) is 360.

### Level 1

<b>Title</b>	<b>Credit Rating</b>	<b>Core / Optional</b>
Personal and Professional Skills (AST) 2019-20	15	Core
Construction ICT (AST) 2019-20	15	Core
Fundamental Science and Technology 2019-20	30	Core
Introduction to the Built Environment (AST) 2019-20	15	Core
Health, Safety and Law (AST) 2019-20	15	Core
Introductory Architectural Design and Technology Studio 2019-20	30	Core

### Level 2

<b>Title</b>	<b>Credit Rating</b>	<b>Core / Optional</b>
Construction Contracts and Law (AST) 2020-21	15	Core
Construction Economics (AST) 2020-21	15	Core
Procurement, Estimating and Measurement (AST) 2020-21	15	Core
Environmental Science and Technology 2020-21	30	Core
BIM Design and Applications (AST) 2020-21	15	Core
Architectural Design And Technology Studio 2020-21	30	Core
Architectural Science and Technology Industrial Placement Year 2021-22	0	Optional
AST Professional Practice and Mentoring Scheme 2020-21	0	Optional

### Level 3

<b>Title</b>	<b>Credit Rating</b>	<b>Core / Optional</b>
AST Dissertation 2021-22	30	Core
Professional Context AST 2021-22	15	Core
AST Research Methods 2021-22	15	Core
Environmental Science Design Project 2021-22	30	Core
Advanced Architectural Design and Technology Studio 2021-22	30	Core

## Appendix I - Curriculum Map

This table indicates which modules assume responsibility for delivering and ordering particular programme learning outcomes.

**Key:**  Delivered and Assessed     Delivered     Assessed

### Level 1

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Construction ICT (AST) 2019-20							✓					
Fundamental Science and Technology 2019-20												
Health, Safety and Law (AST) 2019-20					✓							✓
Introduction to the Built Environment (AST) 2019-20												
Introductory Architectural Design and Technology Studio 2019-20												
Personal and Professional Skills (AST) 2019-20												

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20
Construction ICT (AST) 2019-20								
Fundamental Science and Technology 2019-20								
Health, Safety and Law (AST) 2019-20								
Introduction to the Built Environment (AST) 2019-20								
Introductory Architectural Design and Technology Studio 2019-20								
Personal and Professional Skills (AST) 2019-20								

### Level 2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

Architectural Design And Technology Studio 2020-21			✓									
Architectural Science and Technology Industrial Placement Year 2021-22												
AST Professional Practice and Mentoring Scheme 2020-21												
BIM Design and Applications (AST) 2020-21							✓					
Construction Contracts and Law (AST) 2020-21					✓						✓	
Construction Economics (AST) 2020-21												
Environmental Science and Technology 2020-21		✓				✓			✓	✓		
Procurement, Estimating and Measurement (AST) 2020-21												

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20
Architectural Design And Technology Studio 2020-21	✓		✓			✓		
Architectural Science and Technology Industrial Placement Year 2021-22								
AST Professional Practice and Mentoring Scheme 2020-21								
BIM Design and Applications (AST) 2020-21							✓	
Construction Contracts and Law (AST) 2020-21								
Construction Economics (AST) 2020-21								
Environmental Science and Technology 2020-21								
Procurement, Estimating and Measurement (AST) 2020-21								

### Level 3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Advanced Architectural Design and Technology Studio 2021-22	✓		✓					✓		✓		
AST Dissertation 2021-22												



AST Research Methods 2021-22													
Environmental Science Design Project 2021-22	✓	✓		✓		✓				✓			
Professional Context AST 2021-22												✓	✓

	PO13	PO14	PO15	PO16	PO17	PO18	PO19	PO20
Advanced Architectural Design and Technology Studio 2021-22	✓	✓	✓	✓		✓	✓	✓
AST Dissertation 2021-22		✓						✓
AST Research Methods 2021-22							✓	
Environmental Science Design Project 2021-22			✓	✓	✓			
Professional Context AST 2021-22								

## Appendix II - Assessment Map

This table indicates the spread of assessment activity across the programme. Percentages indicate assessment weighting.

### Level 1

	01	02	03	04	05	06	07	08	09	10	11	12
Construction ICT (AST) 2019-20												
Fundamental Science and Technology 2019-20					25		25				25	
Health, Safety and Law (AST) 2019-20												
Introduction to the Built Environment (AST) 2019-20			25	25								50
Introductory Architectural Design and Technology Studio 2019-20												
Personal and Professional Skills (AST) 2019-20						40				60		
	13	14	15	16	17	18	19	20	21	22	23	24
Construction ICT (AST) 2019-20											30	
Fundamental Science and Technology 2019-20	25											
Health, Safety and Law (AST) 2019-20						50						
Introduction to the Built Environment (AST) 2019-20												
Introductory Architectural Design and Technology Studio 2019-20												
Personal and Professional Skills (AST) 2019-20												
	25	26	27	28	29	30	31	32	33	34	35	36
Construction ICT (AST) 2019-20				70								

Fundamental Science and Technology 2019-20													
Health, Safety and Law (AST) 2019-20			50										
Introduction to the Built Environment (AST) 2019-20													
Introductory Architectural Design and Technology Studio 2019-20						100							
Personal and Professional Skills (AST) 2019-20													
	37	38	39	40	41	42	43	44	45	46	47	48	
Construction ICT (AST) 2019-20													
Fundamental Science and Technology 2019-20													
Health, Safety and Law (AST) 2019-20													
Introduction to the Built Environment (AST) 2019-20													
Introductory Architectural Design and Technology Studio 2019-20													
Personal and Professional Skills (AST) 2019-20													
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)	
Construction ICT (AST) 2019-20													
Fundamental Science and Technology 2019-20													
Health, Safety and Law (AST) 2019-20													
Introduction to the Built Environment (AST) 2019-20													
Introductory Architectural Design and Technology Studio 2019-20													
Personal and Professional Skills (AST) 2019-20													

## Level 2

	01	02	03	04	05	06	07	08	09	10	11	12
Architectural Design And Technology Studio 2020-21												
Architectural Science and Technology Industrial Placement Year 2021-22												
AST Professional Practice and Mentoring Scheme 2020-21												
BIM Design and Applications (AST) 2020-21												
Construction Contracts and Law (AST) 2020-21												
Construction Economics (AST) 2020-21			50								50	
Environmental Science and Technology 2020-21				25		25				25		25
Procurement, Estimating and Measurement (AST) 2020-21												

	13	14	15	16	17	18	19	20	21	22	23	24
Architectural Design And Technology Studio 2020-21												
Architectural Science and Technology Industrial Placement Year 2021-22												
AST Professional Practice and Mentoring Scheme 2020-21												
BIM Design and Applications (AST) 2020-21											30	
Construction Contracts and Law (AST) 2020-21							50					50
Construction Economics (AST) 2020-21												
Environmental Science and Technology												

2020-21													
Procurement, Estimating and Measurement (AST) 2020-21										60			
	25	26	27	28	29	30	31	32	33	34	35	36	
Architectural Design And Technology Studio 2020-21						100							
Architectural Science and Technology Industrial Placement Year 2021-22													
AST Professional Practice and Mentoring Scheme 2020-21													
BIM Design and Applications (AST) 2020-21				70									
Construction Contracts and Law (AST) 2020-21													
Construction Economics (AST) 2020-21													
Environmental Science and Technology 2020-21													
Procurement, Estimating and Measurement (AST) 2020-21					40								
	37	38	39	40	41	42	43	44	45	46	47	48	
Architectural Design And Technology Studio 2020-21													
Architectural Science and Technology Industrial Placement Year 2021-22													
AST Professional Practice and Mentoring Scheme 2020-21													
BIM Design and Applications (AST) 2020-21													
Construction Contracts and Law (AST) 2020-21													
Construction Economics (AST) 2020-21													
Environmental Science and Technology 2020-21													

Procurement, Estimating and Measurement (AST) 2020-21													
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)	
Architectural Design And Technology Studio 2020-21													
Architectural Science and Technology Industrial Placement Year 2021-22										100			
AST Professional Practice and Mentoring Scheme 2020-21													
BIM Design and Applications (AST) 2020-21													
Construction Contracts and Law (AST) 2020-21													
Construction Economics (AST) 2020-21													
Environmental Science and Technology 2020-21													
Procurement, Estimating and Measurement (AST) 2020-21													

### Level 3

	01	02	03	04	05	06	07	08	09	10	11	12
Advanced Architectural Design and Technology Studio 2021-22												
AST Dissertation 2021-22												
AST Research Methods 2021-22							30					70
Environmental Science Design Project 2021-22												
Professional Context AST 2021-22												
	13	14	15	16	17	18	19	20	21	22	23	24
Advanced Architectural Design and Technology Studio 2021-22												

AST Dissertation 2021-22								25					
AST Research Methods 2021-22													
Environmental Science Design Project 2021-22													
Professional Context AST 2021-22								100					
	25	26	27	28	29	30	31	32	33	34	35	36	
Advanced Architectural Design and Technology Studio 2021-22						100							
AST Dissertation 2021-22					75								
AST Research Methods 2021-22													
Environmental Science Design Project 2021-22					100								
Professional Context AST 2021-22													
	37	38	39	40	41	42	43	44	45	46	47	48	
Advanced Architectural Design and Technology Studio 2021-22													
AST Dissertation 2021-22													
AST Research Methods 2021-22													
Environmental Science Design Project 2021-22													
Professional Context AST 2021-22													
							49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)	
Advanced Architectural Design and Technology Studio 2021-22													
AST Dissertation 2021-22													
AST Research Methods 2021-22													
Environmental Science Design Project 2021-22													





## Appendix III - Benchmark Analysis

This table maps programme learning outcomes to relevant QAA subject benchmark statements or PSRB guidelines.

### Knowledge and Understanding

	ARCHONS 01	ARCHONS 02	ARCHONS 03	ARCHONS 04	ARCHONS 05	ARCHONS 06	ARCHONS 07	ARCHONS 08	ARCMAST 01
PO1	✓	✓				✓			
PO2			✓						
PO3									
PO4	✓						✓		
PO5							✓		
PO6	✓			✓					
PO7					✓				

	ARCMAST 02	ARCMAST 03	ARCMAST 04	ARCMAST 05
PO1		✓		
PO2		✓	✓	
PO3	✓			✓
PO4		✓		
PO5		✓		
PO6		✓		✓
PO7			✓	

### Subject Specific Intellectual Skills

	ARCHONS 01	ARCHONS 02	ARCHONS 03	ARCHONS 04	ARCHONS 05	ARCHONS 06	ARCHONS 07	ARCHONS 08	ARCMAST 01
PO8	✓	✓							

PO9			✓						
PO10			✓						
PO11						✓			
PO12							✓		

						ARCMAS T 02	ARCMAS T 03	ARCMAS T 04	ARCMAS T 05
PO8									
PO9								✓	
PO10									✓
PO11									
PO12									

## Subject Specific Practical Skills

	ARCHONS 01	ARCHONS 02	ARCHONS 03	ARCHONS 04	ARCHONS 05	ARCHONS 06	ARCHONS 07	ARCHONS 08	ARCMAS T 01
PO13	✓	✓			✓				
PO14								✓	
PO15			✓					✓	✓
PO16							✓		
PO17									

						ARCMAS T 02	ARCMAS T 03	ARCMAS T 04	ARCMAS T 05
PO13							✓		
PO14									
PO15						✓			
PO16							✓	✓	✓
PO17									

## Transferable Skills and Attributes

	ARCHONS 01	ARCHONS 02	ARCHONS 03	ARCHONS 04	ARCHONS 05	ARCHONS 06	ARCHONS 07	ARCHONS 08	ARCMAST 01
PO18		✓			✓			✓	
PO19		✓							
PO20		✓	✓						

	ARCMAST 02	ARCMAST 03	ARCMAST 04	ARCMAST 05
PO18				
PO19		✓	✓	✓
PO20		✓	✓	

## **Appendix IV: Benchmark Benchmark Statement(s)**

**ARCHONS01** - *an awareness of the context, and the political, economic, environmental, social and technological aspects that inform and influence the practice of architectural technology nationally and internationally*

**ARCHONS02** - *an ability to problem solve to realise the design into built form through the generation of detailed design solutions that respond to familiar and unfamiliar situations*

**ARCHONS03** - *an ability to successfully complete a sustainable and inclusive design project, systematic review or systematic case study, informed by current understandings in the discipline*

**ARCHONS04** - *an awareness of building elements, components, systems, and methods used for different building typologies*

**ARCHONS05** - *an awareness of current topics and practices which inform the discipline of architectural technology including new and emerging technologies*

**ARCHONS06** - *an awareness of project and design management, project procurement and process, construction and contract management*

**ARCHONS07** - *an ability to identify hazards and risks and develop and maintain safe systems of work and legal and relevant legislation and regulatory frameworks*

**ARCHONS08** - *an ability to work independently and as a member of a team identifying personal development needs and to plan to meet these needs through relevant and appropriate methods*

**ARCMAST01** - *a systematic understanding and critical awareness of topics which are informed by the forefront of the subject of architectural technology*

**ARCMAST02** - *a critical awareness of the history and the context, and the political, economic, environmental, social and technological theories that inform and influence the practice of architectural technology*

**ARCMAST03** - *an ability to identify appropriate methodologies for dealing with complex problems or those of an unfamiliar or unpredictable nature*

**ARCMAST04** - *an ability to develop critical discussion and analysis of complex concepts, and work independently and with some originality*

**ARCMAST05** - *an ability to successfully complete a substantial research project, design project, systematic review or systematic case study, informed by wide current understandings in the subject*